



**Department of
Design and
Construction**

**THE CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
DIVISION OF INFRASTRUCTURE**

30-30 THOMSON AVENUE
LONG ISLAND CITY, NEW YORK 11101-3045
TELEPHONE (718) 391-1000
WEBSITE www.nyc.gov/buildnyc

VOLUME 1 OF 3

LAW

BID BOOKLET

FOR FURNISHING ALL LABOR AND MATERIALS NECESSARY AND REQUIRED FOR:

PROJECT ID: CONISPH2B

**FOR THE CONSTRUCTION OF STORM AND SANITARY SEWERS AND
TRUNK WATER MAINS AND APPURTENANCES IN CONEY ISLAND AREA
PHASE 2B**

INCLUDING WATER MAIN WORK

Together With All Work Incidental Thereto
**BOROUGH OF BROOKLYN
CITY OF NEW YORK**

FOR THE DEPARTMENT OF ENVIRONMENTAL PROTECTION
PREPARED BY
IN-HOUSE DESIGN

April 17, 2015

05-161

05-161





REVISED

Bid Tab

Description FOR THE CONSTRUCTION OF STORM AND SANITARY SEWERS AND TRUNK WATER MAINS AND APPURTENANCES IN CONEY ISLAND AREA PHASE 2B - BOROUGH OF BROOKLYN

Bid Date 11/20/2015 **FMS ID** CONISPH2B

Estimated Cost \$40,998,430.00 **Client Agency** DOT

Bid Security Not less than 2% of Total Bid Price **PLA** No

Time Allowed 910 CCD **Contract Manager** Victoria Ayo-Vaughan

Addendum 9 **Project Manager** Patel, Ashishkumar

PIN 8502013SE0045C **E-PIN** 85015B0153

Selective Bidding Yes No **Consultant** In-House

| Bid Rank | Vendor | Bid Amount | Security Type |
|----------|--------------------------------|-----------------|---------------|
| 1 | BEDFORD/CARP CONSTRUCTION INC. | \$44,443,446.44 | Bond |
| 2 | JR CRUZ CORP. | \$47,323,406.78 | Bond |
| 3 | C.A.C. INDUSTRIES, INC. | \$52,221,731.22 | Bond |
| 4 | LAWS CONSTRUCTION CORP. | \$56,252,000.00 | Bond |
| 5 | PERFETTO CONTRACTING CO. INC. | \$59,631,080.08 | Bond |
| 6 | JUDLAU CONTRACTING, INC. | \$63,400,000.00 | Bond |

Recorder: Brenda Barreiro ext. 1041

Approver: _____

[Handwritten Signature]
1/26 h-tt





May 10, 2016

CERTIFIED MAIL - RETURN RECEIPT REQUEST
BEDFORD/CARP CONSTRUCTION INC.
77 BLOOMFIELD AVENUE
STATEN ISLAND, NY 10314

RE: FMS ID: CONISPH2B
E-PIN: 85015B0153001
DDC PIN: 8502013SE0045C
FOR THE CONSTRUCTION OF STORM AND
SANITARY SEWERS AND TRUNK WATER
MAINS AND APPURTENANCES IN CONEY
ISLAND AREA PHASE 2B - BOROUGH OF
BROOKLYN
NOTICE OF AWARD

Dear Contractor:

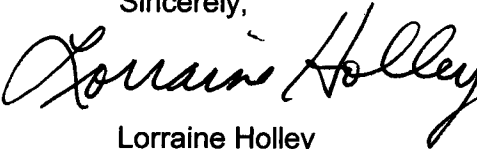
You are hereby awarded the above referenced contract based upon your bid in the amount of \$44,443,446.44 submitted at the bid opening on November 20, 2015. Within ten (10) days of your receipt of this notice of award, you are required to take the actions set forth in Paragraphs (1) through (3) below. For your convenience, attached please find a copy of Schedule A of the General Conditions to the Contract, which sets forth the types and amounts of insurance coverage required for this contract.

- (1) Execute four copies of the Agreement in the Contracts Unit, 30-30 Thomson Avenue, 1st Floor, Long Island City, New York (IDCNY Building). A Commissioner of Deeds will be available to witness and notarize your signature. The Agreement must be signed by an officer of the corporation or a partner of the firm.
- (2) Submit to the Contracts Unit four properly executed performance and payment bonds. If required for this contract, copies of performance and payment bonds are attached.
- (3) Submit to the Contracts Unit the following insurance documentation: (a) original certificate of insurance for general liability in the amount required by Schedule A, and (b) original certificates of insurance or other proof of coverage for workers' compensation and disability benefits, as required by New York State Law. The insurance documentation specified in this paragraph is required for registration of the contract with the Comptroller's Office.

On or before the contract commencement date, you are required to submit all other certificates of insurance and/or policies in the types and amounts required by Schedule A. Such certificates of Insurance and/or policies must be submitted to the Agency Chief Contracting Office, Attention: Risk Manager, Fourth Floor at the above indicated department address.

Your attention is directed to the section of the Information for Bidders entitled "Failure to Execute Contract". As indicated in this section, in the event you fail to execute the contract and furnish the required bonds within the (10) days of your receipt of this notice of award, your bid security will be retained by the City and you will be liable for the difference between your bid price and the price for which the contract is subsequently awarded, less the amount of the bid security retained.

Sincerely,



Lorraine Holley

Locations Of Work

For the Construction of Storm Sewers and Appurtenances in:
Stillwell Avenue between Shore Parkway and Surf Avenue
Neptune Avenue between Stillwell Avenue and West 12th Street
Surf Avenue between Stillwell Avenue and West 12th Street

For the Construction of Sanitary Sewers and Appurtenances in:
Stillwell Avenue between Shore Parkway and Surf Avenue
Neptune Avenue between West 15th Street and West 12th Street
Surf Avenue between Stillwell Avenue and West 12th Street

For the Construction of Distribution Water Mains and Appurtenances in:
Mermaid Avenue between West 15th Street and Stillwell Avenue
Stillwell Avenue between Shore Parkway and Surf Avenue
Neptune Avenue between West 15th Street and West 12th Street
Surf Avenue between Stillwell Avenue and West 12th Street
West 12th Street between Neptune Avenue and Surf Avenue

For the Construction of Junction Trunk Mains and Appurtenances in:
Stillwell Avenue between Shore Parkway and Stillwell Avenue Bridge
Stillwell Avenue between Stillwell Avenue Bridge and Neptune Avenue
Neptune Avenue between Stillwell Avenue and West 12th Street



SPECIAL NOTICE TO BIDDERS

The New York City Department of Small Business Services (SBS), in conjunction with the New York Business Development Corporation (NYBDC), have established a **NYC Construction Loan** pilot program to provide prime contractors and subcontractors financing for mobilization costs on certain City construction projects.

Under this initiative, loans are available for early stage mobilization needs such as insurance, labor, supplies and equipment. Bidders are strongly encouraged to visit "Growing Your Business" at www.nyc.gov/nycbusiness to learn more about the loan or contact constructionloan@sbs.nyc.gov / (212) 513-6444 to obtain details and to determine preliminary eligibility.

A successful loan applicant will be required to make an assignment of its contract (or subcontract) payments to the lender NYBDC until the loan is repaid. If the loan is to a subcontractor, a prime contractor must honor the terms of such an assignment.

A prime contractor may not discriminate against a subcontractor or potential subcontractor by reason of the subcontractor's participation, or nonparticipation, in the NYC Construction Loan program.



NOTICE TO VENDORS

Please be advised that, pursuant to the authority granted to the City under Labor Law §816-b, the New York City Department of Design and Construction hereby requires that the contractor awarded a contract as a result of this solicitation, and any of its subcontractors with subcontracts worth two million dollars or over, have, prior to entering into such contract or subcontract, apprenticeship agreements appropriate for the type and scope of work to be performed that have been registered with, and approved by, the New York State Commissioner of Labor. In addition, the contractor and its subcontractors will be required to show that such apprenticeship program/s have successfully passed the two year Probation period following the initial registration date of such program/s with the New York State Department of Labor.

The failure to prove, upon request, that these requirements have been met shall result in the contract not being awarded to the contractor or the subcontractor not being approved.

Please be further advised that, pursuant to Labor Law §220, the allowable ratio of apprentices to journeypersons in any craft classification shall not be greater than the ratio permitted to the contractor as to its workforce on any job under the registered apprenticeship program.

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CITY OF NEW YORK

DEPARTMENT OF
DESIGN AND CONSTRUCTION
DIVISION OF INFRASTRUCTURE

BID BOOKLET

FOR FURNISHING ALL LABOR AND MATERIALS NECESSARY AND
REQUIRED FOR:

PROJECT ID: CONISPH2B

**FOR THE CONSTRUCTION OF STORM AND SANITARY SEWERS AND TRUNK
WATER MAINS AND APPURTENANCES IN CONEY ISLAND AREA PHASE 2B**

INCLUDING WATER MAIN WORK

Together With All Work Incidental Thereto
BOROUGH OF BROOKLYN

(NO TEXT ON THIS PAGE)

PROJECT ID: CONISPH2B

**CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
DIVISION OF INFRASTRUCTURE**

BID BOOKLET

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CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
DIVISION OF INFRASTRUCTURE

SPECIAL NOTICE TO BIDDERS

BID SUBMISSION REQUIREMENTS

THE FOLLOWING DOCUMENTS ARE TO BE COMPLETED AND SUBMITTED WITH THE BID:

1. Bid Schedule and Bid Form, including Affirmation
2. Bid Security (if required, see Attachment 1 on Page A-1)
3. Schedule B: M/WBE Utilization Plan (if participation goals have been established)

FAILURE TO SUBMIT ITEMS (1), (2) AND (3)
WILL RESULT IN THE DISQUALIFICATION OF THE BID.

4. Safety Questionnaire
5. Construction Employment Report (if bid is \$1,000,000 or more)
6. Contract Certificate (if bid is less than \$1,000,000)
7. Confirmation of Vendex Compliance
8. Bidder's Certification of Compliance with Iran Divestment Act
9. Special Experience Requirements (if applicable)
10. Apprenticeship Program Questionnaire (if applicable)
11. Any addenda issued prior to the receipt of bids

FAILURE TO SUBMIT ITEMS (4) THROUGH (11)
MAY RESULT IN THE DISQUALIFICATION OF THE BID.

NOTES:

- (1) All of the above referred to blank forms to be completed and submitted with the bid are included in the BID BOOKLET.
- (2) If the bidder has any questions or requires additional information, please contact the Department of Design and Construction by phone (718-391- 2601) or by fax (718-391-2615).
- (3) **VENDEX QUESTIONNAIRES:** The Bidder is advised that Vendex Questionnaires and procedures have been changed. Vendex Questionnaires, as well as detailed instructions, may be obtained at www.nyc.gov/vendex. The bidder may also obtain Vendex forms and instructions by contacting the Agency Chief Contracting Officer or the contact person for this contract.
- (4) **SPECIAL EXPERIENCE REQUIREMENTS:** The Bidder is advised that Special Experience Requirements may apply to this contract. Such requirements are set forth on pages 3, 3a, 3b and 4 of this Bid Booklet.

SPECIAL NOTICE TO BIDDERS

SPECIAL EXPERIENCE REQUIREMENTS (Revised 03/2014)

- (A) **SPECIAL EXPERIENCE REQUIREMENTS FOR THE BIDDER:** The Special Experience Requirements set forth below apply to the bidder. Compliance with such Special Experience Requirements will be determined solely by the City prior to an award of contract. Failure to comply with the Special Experience Requirements will result in rejection of the bid as non-responsive.

The requirements in this Section (A) apply to this contract where indicated by a blackened box (■).

- The bidder must, within the last seven (7) consecutive years prior to the bid opening, have successfully completed in a timely fashion at least one (1) project similar in scope and type to the required work. Such prior project may have been performed as a prime contractor, subcontractor or sub-subcontractor.

The Special Experience Requirements next to the blackened box below apply to the bidder. If the bidder intends to perform such work itself, it must demonstrate compliance with the Special Experience Requirements. If the bidder intends to subcontract this work, the proposed subcontractor or sub-subcontractor must demonstrate compliance with the Special Experience Requirements. The contractor, subcontractor or sub-subcontractor (hereinafter referred to as the "entity") that will perform any specific area of work indicated by the blackened box below, may have performed the required prior project(s) as a prime contractor, subcontractor or sub-subcontractor. Once approved, no substitution will be permitted, unless the qualifications of the proposed replacement have been approved in writing in advance by the City.

- **Trunk Water Main Work:** The entity that will perform the trunk water main work must, within the last seven (7) consecutive years prior to the bid opening, have successfully completed in a timely fashion at least one (1) project similar in scope and type to the required work.
- **Best Management Practice Work:** Best Management Practice ("BMP") Work is any item of work in the Bid Schedule that begins with the prefix "BMP". The entity that will perform any BMP Work must, within the last five (5) consecutive years prior to the bid opening, have successfully completed in a timely fashion at least three (3) projects similar in scope and type to the required work.

For professional services in connection with BMP Work, (i.e., monitoring and reporting services), the individual who will perform the required services must, within the last five (5) consecutive years prior to the bid opening, have successfully completed in a timely fashion at least three (3) projects similar in scope and type to the required work. Additional requirements are set forth below.

- The individual serving as the Restoration Specialist (Construction Monitor) must be a Registered Landscape Architect licensed by the state of New York, or must have equivalent professional experience.
- The individual serving as the Erosion and Sediment Control Licensed/Certified Professional must be a Certified Professional in Erosion and Sediment Control (CPESC), certified by CPESC, Inc.
- Micro-Tunneling/Pipe Jacking Work:** The entity that will perform the micro-tunneling/pipe jacking work must, within the last five (5) consecutive years prior to the bid opening, have successfully completed in a timely fashion at least two (2) projects similar in scope and type to the required work.
- OTHER:** _____

(B) **SPECIAL EXPERIENCE REQUIREMENTS FOR SPECIFIC AREAS OF WORK (to be provided after an award of contract):**

The requirements in this Section (B) apply to this contract where indicated by a blackened box (■).

The Special Experience Requirements set forth below apply to the contractor, subcontractor or sub-subcontractor that will perform the specific area of work. **Compliance with such Special Experience Requirements will be determined solely by the City after an award of contract.** After an award of contract, when requested by the City, the contractor will be required to submit the qualifications of the contractor, subcontractor or sub-subcontractor that will perform the specific area of work. If the bidder intends to perform such work itself, it must demonstrate compliance with the Special Experience Requirements. If the bidder intends to subcontract this work, the proposed subcontractor or sub-subcontractor must demonstrate compliance with the Special Experience Requirements. Once approved, no substitution will be permitted, unless the qualifications of the proposed replacement have been approved in writing in advance by the City.

Special Experience Requirements apply to the contractor, subcontractor or sub-subcontractor (hereinafter referred to as the "entity") that will perform any specific area of work indicated by a blackened box. The entity may have performed the required prior project(s) as a prime contractor, subcontractor or sub-subcontractor.

■ **Hazmat Work:** Hazmat Work is any item of work in the Bid Schedule that begins with the prefix 8.01. The entity that will perform any Hazmat Work must, within the last three (3) consecutive years prior to the bid opening, have successfully completed in a timely fashion at least five (5) projects similar in scope and type to the required work.

■ **Pile, CFA Pile, and/or Mini-Pile Work:** The entity that will perform the Pile, CFA Pile and/or Mini-Pile Work must, within the last three (3) consecutive years prior to the bid opening, have successfully completed in a timely fashion at least two (2) projects similar in scope and type to the required work.

For professional services in connection with Pile Work, (i.e., engineering and inspection services), the individual who will perform the required services must be a Professional Engineer licensed by the state of New York. Such individual must also comply with the above requirements for prior projects.

■ **Construction Report, Monitoring And Post-Construction Report, and Continuous Real-Time Monitoring For Vibrations And Movements And Post-Construction Report Work:** The entity that will perform the Construction Report, Monitoring For Vibrations And Movements, and Post-Construction Report Work must, within the last three (3) consecutive years prior to the bid opening, have successfully completed in a timely fashion at least two (2) projects similar in scope and type to the required work.

For professional services in connection with Reporting and Monitoring Work, (i.e., engineering and inspection services), the individual who will perform the required services must be a Professional Engineer licensed by the state of New York. Such individual must also comply with the above requirements for prior projects.

OTHER: _____

(C) **SPECIFICATIONS:** In the event of any conflict, omission or inconsistency between (1) the Specifications and/or Contract Drawings, and (2) the Special Experience Requirements in Section (B) of the Special Notice To Bidders, the special experience listed in the Specifications and/or Contract Drawings shall be controlling. The Special Experience Requirements in Section (B) of this Special Notice To Bidders are only for the convenience of the bidders.

(D) **SUBMISSION REQUIREMENTS:** For each project submitted to demonstrate compliance with the Special Experience Requirements, the bidder must complete and submit the Qualification Form included in the Bid Booklet. The City will only evaluate a project if the following criteria are met: (1) the project is described on the Qualification Form, and (2) all information on the Qualification Form is provided. The City will not evaluate any project which does not comply with the criteria set forth herein, including any project which is referred to only on the resume of an individual.

If Special Experience Requirements are indicated for any specific area of work, the submission requirement set forth above shall apply to the entity that will perform the specific area of work.

(E) **CONDITIONS:** In determining compliance with the Special Experience Requirements for the bidder set forth above, the City may consider prior projects completed by principal(s) or other employees of the bidder while affiliated with another entity, subject to the conditions set forth below.

- Any principal or other employee on whose prior experience the bidder is relying to demonstrate compliance with this special experience requirement must have held the following: (a) a significant management role in the prior entity with which he/she was affiliated, and (b) a significant management role in the entity submitting the bid for a period of six (6) months or more from the inception of the bidding entity.
- The bidder may not rely on the experience of its principals or other employees to demonstrate compliance with any other requirements, including without limitation, financial requirements or requirements for a specified minimum amount of annual gross revenues.

(F) **JOINT VENTURES:** In the event the bidder is a joint venture, at least one firm in the joint venture must meet the above described experience requirements.

Qualification Form

List previous projects completed to meet the special experience requirements for this contract. Please photocopy this form for submission of all required projects.

Name of Contractor: _____

Name of Project: _____

Location of Project: _____

Owner or Owner's representative (Architect or Engineer) who is familiar with the work performed:

Name: _____

Title: _____ Phone Number: _____

Brief description of the Project completed or the Project in progress: _____

Was the Project performed as a prime, a subcontractor or a sub-subcontractor: _____

Amount of Contract, Subcontract or Sub-subcontract: _____

Start Date and Completion Date: _____

Name of Contractor: _____

Name of Project: _____

Location of Project: _____

Owner or Owner's representative (Architect or Engineer) who is familiar with the work performed:

Name: _____

Title: _____ Phone Number: _____

Brief description of the Project completed or the Project in progress: _____

Was the Project performed as a prime, a subcontractor or a sub-subcontractor: _____

Amount of Contract, Subcontract or Sub-subcontract: _____

Start Date and Completion Date: _____

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ATTACHMENT 1 - BID INFORMATION

PROJECT ID: CONISPH2B

PIN: 8502013SE0045C

Description and Location of Work: For The Construction Of Storm And Sanitary Sewers And Trunk Water Mains And Appurtenances In Coney Island Area Phase 2B Including Water Main Work, Together With All Work Incidental Thereto, Borough Of Brooklyn.

Documents Available At: 30-30 Thomson Avenue
First Floor Bid Procurement Room
Long Island City, New York 11101
8:30 A.M. to 4:00 P.M. - Monday through Friday

Submission of Bids To: 30-30 Thomson Avenue
First Floor Bid Procurement Room
Long Island City, New York 11101
Before 11:00 A.M. on November 17, 2015

Bid Opening: 30-30 Thomson Avenue
First Floor Bid Procurement Room
Long Island City, New York 11101

Time and Date: 11:00 A.M. on November 17, 2015

Pre-Bid Conference: Yes _____ No X
If Yes, Mandatory: _____ Optional: _____
Time and Date: _____
Location: _____

Bid Security: Bid Security is required in the amount set forth below; provided, however, bid security is not required if the TOTAL BID PRICE set forth on the Bid Form is less than \$1,000,000.00.

- (1) Bond in an amount not less than 10% of the TOTAL BID PRICE set forth on the Bid Form, OR
- (2) Certified Check in an amount not less than 2% of the TOTAL BID PRICE set forth on the Bid Form.

Performance and Payment Security: Required for contracts in the amount of \$1,000,000 or more. Performance Security and Payment Security shall each be in an amount equal to 100% of the Contract Price.

Agency Contact Person: Lorraine Holley
Phone: 718-391-2601 FAX: 718-391-2615

(NO TEXT ON THIS PAGE)

BID SCHEDULE

NOTICE TO BIDDERS

Items listed in this Bid Schedule which have one (1) digit followed by a decimal (e.g. 4.02 AG), excluding items beginning with the number "8.01", shall comply with the requirements of the corresponding numerical Sections of the NYCDOT Standard Highway Specifications as amended by Addendum No. 1 and Addendum No. 2, herein Volume 3 of 3.

Items listed in this Bid Schedule beginning with the number "8.01" (e.g. 8.01 C1) shall comply with the requirements of Addendum No. 5, herein Volume 3 of 3.

Items listed in this Bid Schedule which have two (2) digits beginning with the number "5" followed by a decimal (e.g. 50.31CC15) shall comply with the requirements of the New York City Department of Environmental Protection (NYCDEP) Standard Sewer and Water Main Specifications dated July 1, 2014, as amended by Addendum No. 2, herein Volume 3 of 3.

Items listed in this Bid Schedule which have two (2) digits beginning with the number "6" followed by a decimal (e.g. 60.11R612) shall comply with the requirements of the New York City Department of Environmental Protection (NYCDEP) Standard Sewer and Water Main Specifications dated July 1, 2014, as amended by Addendum No. 2, herein Volume 3 of 3.

Items listed in this Bid Schedule which have two (2) digits beginning with the number "7" followed by a decimal (e.g. 70.31FN) shall comply with the requirements of the New York City Department of Environmental Protection (NYCDEP) Standard Sewer and Water Main Specifications dated July 1, 2014, as amended by Addendum No. 2, herein Volume 3 of 3.

Items listed in this Bid Schedule beginning with the prefix "UTL-" (e.g. UTL-6.01.8) are for Gas Cost Sharing (EP-7) work and shall comply with the requirements of Addendum No. 3, herein Volume 3 of 3.

Items listed in this Bid Schedule beginning with the prefix "BMP" (e.g. BMP-7.502) shall comply with the requirements of the corresponding alphanumeric sections incorporated in Addendum No. 6, herein Volume 3 of 3.

Items listed in this Bid Schedule which have three (3) digits beginning with "NYC" followed by a decimal (e.g. 697.2000) shall comply with the requirements of Addendum No. 2, herein Volume 3 of 3.

Items listed in this Bid Schedule which have three (3) digits followed by a decimal (e.g. 203.12 and 304.11) shall comply with the requirements of the corresponding numerical Sections of the New York State Department of Transportation (NYSDOT) Standard Highway Specifications of May 1, 2008 as currently amended. Items listed in this Bid Schedule which have "502" followed by a decimal (e.g. 502.31010018 and 502.32010018) shall comply with the requirements of the corresponding numerical Sections of the New York State Department of Transportation (NYSDOT) Special Specifications issued under engineering instructions (EI). Sections incorporated in Addendum No. 2, herein Volume 3 of 3.

However all, references therein to the "Department", "Materials Bureau", "Regional Engineer", etc., shall be deemed to mean the "Engineer". Where any reference is made on the plans or specifications to the "State" or any of its officials, the Contractor shall substitute the City of New York, Department of Design and Construction, or any of its appropriate officials. The NYSDOT Specifications described above neither imply the State's involvement in any testing and approval of materials, nor in the supervision of construction.

1

BID FORM
THE CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
DIVISION OF INFRASTRUCTURE

**BID FOR FURNISHING ALL LABOR AND
MATERIAL NECESSARY AND REQUIRED FOR:**

PROJECT ID: CONISPH2B

**FOR THE CONSTRUCTION OF STORM AND SANITARY SEWERS AND TRUNK WATER MAINS
AND APPURTENANCES IN CONEY ISLAND AREA PHASE 2B**

INCLUDING WATER MAIN WORK

**Together With All Work Incidental Thereto
BOROUGH OF BROOKLYN**

Name of Bidder: Bedford Corp Construction Inc.

Date of Bid Opening: November 17, 2015

Bidder is: (Check one, whichever applies) Individual () Partnership () Corporation

Place of Business of Bidder: 77 Bloomfield Ave, Staten Island, N.Y. 10314

Bidder's Telephone Number: (718) 494-8600 Fax Number: (718) 494-7666

Bidder's E-Mail Address: M.Hajisafaei @ VERIZON.NET

Residence of Bidder (If Individual): _____

If Bidder is a Partnership, fill in the following blanks:

Names of Partners

Residence of Partners

If Bidder is a Corporation, fill in the following blanks:

Organized under the laws of the State of New York

Name and Home Address of President: Anthony Carginiello, 260 W. 26th St, Apt 8K
N.Y. N.Y. 10010

Name and Home Address of Secretary: Donald J. Banks, 505 Willowbrook Rd,
Staten Island, N.Y. 10314

Name and Home Address of Treasurer: Thomas Banks, 17 SeaGate Rd.
Staten Island, N.Y. 10305

BID FORM

The above-named Bidder affirms and declares:

1. The said bidder is of lawful age and the only one interested in this bid; and no person, firm or corporation other than hereinbefore named has any interest in this bid, or in the Contract proposed to be taken.
2. By submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief: (1) the prices in this bid have been arrived at independently without collusion, consultation, communication or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor; (2) unless otherwise required by law, the prices quoted in this bid have not been knowingly disclosed by the bidder and will not knowingly be disclosed by the bidder prior to opening, directly or indirectly, to any other bidder or to any competitor; and (3) No attempt has been made or will be made by the bidder to induce any other person, partnership or corporation to submit or not to submit a bid for the purpose of restricting competition.
3. No councilman or other officer or employee or person whose salary is payable in whole or in part from the City Treasury is directly or indirectly interested in this bid, or in the supplies, materials, equipment, work or labor to which it relates, or in any of the profits thereof.
4. The bidder is not in arrears to the City of New York upon debt or contract or taxes, and is not a defaulter, as surety or otherwise, upon any obligation of the City of New York, and has not been declared not responsible, or disqualified, by any agency of the City of New York or State of New York, nor is there any proceeding pending relating to the responsibility or qualification of the bidder to receive public contracts except as set forth on the Affirmation included as page C-6 of this Bid Booklet.

The bidder hereby affirms that it has paid all applicable City income, excise and other taxes for all years it has conducted business activities in New York City.

5. The bidder, as an individual, or as a member, partner, director or officer of the bidder, if the same be a firm, partnership or corporation, executes this document expressly warranting and representing that should this bid be accepted by the City and the Contract awarded to him, he and his subcontractors engaged in the performance: (1) will comply with the provisions of Section 6-108 of the Administrative Code of the City of New York and the non-discrimination provisions of Section 220a of the New York State Labor Law, as more expressly and in detail set forth in the Agreement; (2) will comply with Section 6-109 of the Administrative Code of the City of New York in relation to minimum wages and other stipulations as more expressly and in detail set forth in the Agreement; (3) have complied with the provisions of the aforesaid laws since their respective effective dates, and (4) will post notices to be furnished by the City, setting forth the requirements of the aforesaid laws in prominent and conspicuous places in each and every plant, factory, building and structure where employees engaged in the performance of the Contract can readily view it, and will continue to keep such notices posted until the supplies, materials and equipment, or work labor and services required to be furnished or rendered by the Contractor have been finally accepted by the City. In the event of any breach or violation of the foregoing, the Contractor may be subject to damages, liquidated or otherwise, cancellation of the Contract and suspension as a bidder for a period of three years. (The words, "the bidder", "he", "his", and "him" where used herein shall mean the individual bidder, firm, partnership or corporation executing the bid).

AFFIRMATION

PROJECT ID: CONISPH2B

The undersigned bidder affirms and declares that said bidder is not in arrears to the City of New York upon debt, contract or taxes and is not a defaulter, as surety or otherwise, upon obligation to the City of New York, and has not been declared not responsible, or disqualified, by any agency of the City of New York, nor is there any proceeding pending relating to the responsibility or qualification of the bidder to receive public contracts except:

NONE

(If none, the bidder shall insert the word "None" in the space provided above.)

Full Name of Bidder: Bedford Corp Construction Inc.
Address: 77 Blomhels Ave
City Staten Island State NY Zip Code 10314

CHECK ONE BOX AND INCLUDE APPROPRIATE NUMBER:

A - Individual or Sole Proprietorship*
SOCIAL SECURITY NUMBER

B - Partnership, Joint Venture or other unincorporated organization
EMPLOYER IDENTIFICATION NUMBER

C - Corporation
EMPLOYER IDENTIFICATION NUMBER

80-0951159

By: *M. Haffner*
Signature

Title: J.P.

If a corporation, place seal here

This affirmation must be signed by an officer or duly authorized representative.

*Under the Federal Privacy Act the furnishing of Social Security Numbers by bidders on City contracts is voluntary. Failure to provide a Social Security Number will not result in a bidder's disqualification. Social Security Numbers will be used to identify bidders, proposers or vendors to ensure their compliance with laws, to assist the City in enforcement of laws, as well as to provide the City a means of identifying of businesses which seek City contracts.

(NO TEXT ON THIS PAGE)



11/12/2015 12:00 AM

NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION
DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN

CONTRACT PIN: 8502013SE0045C
PROJECT ID: CONISPH2B

BID SCHEDULE

- NOTE:** (1) The Agency may reject a bid if it contains unbalanced bid prices. An unbalanced bid is considered to be one containing lump sum or unit items which do not reflect reasonable actual costs plus a reasonable proportionate share of the Bidder's anticipated profit, overhead costs, and other indirect costs, anticipated for the performance of the items in question.
- (2) The following bid prices on Unit Price Contracts are to be paid for the actual quantities of the item numbers in the completed work or structure, and they cover the cost of all work, labor, material, tools, plant and appliances of every description necessary to complete the entire work, as specified, and the removal of all debris, temporary work and appliances.
- (3) PLEASE BE SURE A LEGIBLE BID IS ENTERED, IN INK, FOR EACH ITEM.
Alterations must be initialed in ink by the bidder.
- (4) The Extended Amount entered in Column 6 shall be the product of the Estimated Quantity in Column 3 times the Unit Price Bid in Column 5.
- (5) Prospective bidders must examine the Bid Schedule carefully and, before bidding, must advise the Commissioner, in writing, if any pages are missing, and must request that such missing pages be furnished them. The pages of this Bid Schedule are numbered consecutively, as follows:
B - 3 [REVISION # 1] Through B - 49 [REVISION # 1]

PLEASE BE SURE A LEGIBLE BID IS ENTERED FOR EACH ITEM.
THE BIDDER SHALL INSERT THE TOTAL BID PRICE IN
THE BID FORM ON PAGE C-4 OF THIS BID BOOKLET.

BID SCHEDULE FORM

| COL 1 SEQ. NO. | COL 2 ITEM NUMBER and DESCRIPTION | COL 3 ENGINEER'S ESTIMATE OF QUANTITY | COL 4 UNIT | COL 5 UNIT PRICE (IN FIGURES) DOLLARS / CTS. | COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS |
|-------------------|---|--|---------------|---|---|
| 001 | 4.02 AB-R ASPHALTIC CONCRETE WEARING COURSE, 1-1/2" THICK | 300.00 | S.Y. | 2 - | 600 - |
| 002 | 4.02 AF-R ASPHALTIC CONCRETE WEARING COURSE, 2" THICK | 33,000.00 | S.Y. | 3 - | 99,000 - |
| 003 | 4.02 CA BINDER MIXTURE | 10,050.00 | TONS | 25 - | 251,250 - |
| 004 | 4.04 H CONCRETE BASE FOR PAVEMENT, VARIABLE THICKNESS FOR TRENCH RESTORATION, (HIGH-EARLY STRENGTH) | 3,825.00 | C.Y. | 42 50 | 162,562 50 |
| 005 | 4.08 BA CONCRETE CURB (21" DEEP) | 3,000.00 | L.F. | 10 - | 30,000 - |
| 006 | 4.09 AE STRAIGHT STEEL FACED CONCRETE CURB (21" DEEP) | 1,170.00 | L.F. | 12 50 | 14,625 - |

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NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION
 DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN

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BID SCHEDULE FORM

| COL 1 SEQ. NO. | COL 2 ITEM NUMBER AND DESCRIPTION | COL 3 ENGINEERS ESTIMATE OF QUANTITY | COL 4 UNIT | COL 5 UNIT PRICE (IN FIGURES) DOLLARS CTS | COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS CTS |
|-------------------|---|---|---------------|---|--|
| 007 | 4.09 BE DEPRESSED STEEL FACED CONCRETE CURB (21" DEEP) | 400.00 | L.F. | 15 - | 6,000 - |
| 008 | 4.09 CE CORNER STEEL FACED CONCRETE CURB (21" DEEP) | 425.00 | L.F. | 60 - | 25,500 - |
| 009 | 4.13 AAS 4" CONCRETE SIDEWALK (UNPIGMENTED) | 4,200.00 | S.F. | 4 - | 16,800 - |
| 010 | 4.13 BAS 7" CONCRETE SIDEWALK (UNPIGMENTED) | 2,700.00 | S.F. | 5 - | 13,500 - |
| 011 | 4.13 DE EMBEDDED PREFORMED DETECTABLE WARNING UNITS | 280.00 | S.F. | 25 - | 7,000 - |
| 012 | 4.16 AA TREES REMOVED (4" TO UNDER 12" CALIPER) | 2.00 | EACH | 500 - | 1,000 - |

BID SCHEDULE FORM

| COL 1 SEQ. NO | COL 2 ITEM NUMBER and DESCRIPTION | COL 3 ENGINEER'S ESTIMATE OF QUANTITY | COL 4 UNIT | COL 5 UNIT PRICE (IN FIGURES) DOLLARS CTS | COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS CTS |
|------------------|---|--|---------------|---|--|
| 013 | 4.18 A MAINTENANCE TREE PRUNING (UNDER 12" CAL.) | 21.00 | EACH | 150 - | 3,150 - |
| 014 | 4.18 B MAINTENANCE TREE PRUNING (12" TO UNDER 18" CAL.) | 11.00 | EACH | 200 - | 2,200 - |
| 015 | 4.18 C MAINTENANCE TREE PRUNING (18" TO UNDER 24" CAL.) | 2.00 | EACH | 250 - | 500 - |
| 016 | 4.18 D MAINTENANCE TREE PRUNING (24" CAL. AND OVER) | 1.00 | EACH | 300 - | 300 - |
| 017 | 4.21 TREE CONSULTANT | 400.00 | P/HR | 75 - | 30,000 - |
| 018 | 50.11MS026020 2'-6" W X 2'-0" H SINGLE BARREL FLAT TOP REINFORCED CONCRETE STORM SEWER | 227.00 | L.F. | 2,000 3,000. 3,000 | 454,000 681,000 |

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BID SCHEDULE FORM

| COL 1 SEQ. NO. | COL 2 ITEM NUMBER and DESCRIPTION | COL 3 ENGINEERS ESTIMATE OF QUANTITY | COL 4 UNIT | COL 5 UNIT PRICE (IN FIGURES) DOLLARS | COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS | CIS |
|-------------------|--|---|---------------|--|---|-----|
| 019 | 50.11MS030020 3'-0"W X 2'-0"H SINGLE BARREL FLAT TOP REINFORCED CONCRETE STORM SEWER | 200.00 | L.F. | 3,200 | 640,000 | - |
| 020 | 50.11MS040020 4'-0"W X 2'-0"H SINGLE BARREL FLAT TOP REINFORCED CONCRETE STORM SEWER | 358.00 | L.F. | 3,500 | 1,253,000 | - |
| 021 | 50.11MS040026 4'-0"W X 2'-6"H SINGLE BARREL FLAT TOP REINFORCED CONCRETE STORM SEWER | 291.00 | L.F. | 4,000 | 1,164,000 | - |
| 022 | 50.11MS060050 6'-0"W X 5'-0"H SINGLE BARREL FLAT TOP REINFORCED CONCRETE STORM SEWER | 590.00 | L.F. | 4,250 | 2,507,500 | - |
| 023 | 50.11MS066030 6'-6"W X 3'-0"H SINGLE BARREL FLAT TOP REINFORCED CONCRETE STORM SEWER | 490.00 | L.F. | 4,500 | 2,205,000 | - |
| 024 | 50.11MS070050 7'-0"W X 5'-0"H SINGLE BARREL FLAT TOP REINFORCED CONCRETE STORM SEWER | 105.00 | L.F. | 4,750 | 498,750 | - |

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NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION
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BID SCHEDULE FORM

| COL 1 SEQ. NO. | COL 2 ITEM NUMBER and DESCRIPTION | COL 3 ENGINEER'S ESTIMATE OF QUANTITY | COL 4 UNIT | COL 5 UNIT PRICE (IN FIGURES) DOLLARS | COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS |
|-------------------|--|--|---------------|--|---|
| 025 | 50.11MS076030 7'-6" W X 3'-0" H SINGLE BARREL FLAT TOP REINFORCED CONCRETE STORM SEWER | 750.00 | L.F. | 5,000 | 3,750,000 |
| 026 | 50.11MS080040 8'-0" W X 4'-0" H SINGLE BARREL FLAT TOP REINFORCED CONCRETE STORM SEWER | 20.00 | L.F. | 5,500 | 110,000 |
| 027 | 50.21S3C024D 24" R.C.P. CLASS III SANITARY SEWER, ON CONCRETE CRADLE | 1,317.00 | L.F. | 1,500 | 1,975,500 |
| 028 | 50.21S3E024D 24" R.C.P. CLASS III SANITARY SEWER, ENCASED IN CONCRETE | 46.00 | L.F. | 1,300 | 59,800 |
| 029 | 50.31ME18 18" E.S.V.P. STORM SEWER, ENCASED IN CONCRETE | 450.00 | L.F. | 1,200 | 540,000 |
| 030 | 50.31SC10 10" E.S.V.P. SANITARY SEWER, ON CONCRETE CRADLE | 1,755.00 | L.F. | 1,200 | 2,106,000 |

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NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION
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BID SCHEDULE FORM

| COL 1 SEQ. NO. | COL 2 ITEM NUMBER and DESCRIPTION | COL 3 ENGINEERS ESTIMATE OF QUANTITY | COL 4 UNIT | COL 5 UNIT PRICE (IN FIGURES) | | COL 6 EXTENDED AMOUNT (IN FIGURES) | |
|-------------------|---|---|---------------|-------------------------------------|-------|--|-------|
| | | | | DOLLARS | CENTS | DOLLARS | CENTS |
| 031 | 50.31SC12 12" E.S.V.P. SANITARY SEWER, ON CONCRETE CRADLE | 841.00 | L.F. | 1,100 | - | 925,100 | - |
| 032 | 50.31SE12 12" E.S.V.P. SANITARY SEWER, ENCASED IN CONCRETE | 43.00 | L.F. | 1,000 | - | 43,000 | - |
| 033 | 50.31SE15 15" E.S.V.P. SANITARY SEWER, ENCASED IN CONCRETE | 10.00 | L.F. | 950 | - | 9,500 | - |
| 034 | 50.31SE18 18" E.S.V.P. SANITARY SEWER, ENCASED IN CONCRETE | 40.00 | L.F. | 1,100 | - | 44,000 | - |
| 035 | 50.41S6E10 10" D.I.P. CLASS 56 SANITARY SEWER, ENCASED IN CONCRETE | 30.00 | L.F. | 900 | - | 27,000 | - |
| 036 | 50.41S6E24 24" D.I.P. CLASS 56 SANITARY SEWER, ENCASED IN CONCRETE | 32.00 | L.F. | 1,100 | - | 35,200 | - |

BID SCHEDULE FORM

| COL 1 SEQ. NO | COL 2 ITEM NUMBER and DESCRIPTION | COL 3 ENGINEER'S ESTIMATE OF QUANTITY | COL 4 UNIT | COL 5 UNIT PRICE (IN FIGURES) DOLLARS CTS | COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS CTS |
|------------------|--------------------------------------|--|---------------|---|--|
| 037 | 51.11C001 CHAMBER NO. 1 | 1.00 | EACH | 100,000 | 100,000 |
| 038 | 51.11C002 CHAMBER NO. 2 | 1.00 | EACH | 100,000 | 100,000 |
| 039 | 51.11C003 CHAMBER NO. 3 | 1.00 | EACH | 100,000 | 100,000 |
| 040 | 51.11C004 CHAMBER NO. 4 | 1.00 | EACH | 100,000 | 100,000 |
| 041 | 51.11C005 CHAMBER NO. 5 | 1.00 | EACH | 100,000 | 100,000 |
| 042 | 51.11C006 CHAMBER NO. 6 | 1.00 | EACH | 100,000 | 100,000 |

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NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION
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BID SCHEDULE FORM

| COL 1 SEQ. NO. | COL 2 ITEM NUMBER and DESCRIPTION | COL 3 ENGINEERS ESTIMATE QUANTITY | COL 4 UNIT | COL 5 UNIT PRICE (IN FIGURES) DOLLARS CTS | COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS CTS |
|-------------------|--|--------------------------------------|---------------|--|---|
| 043 | 51.11C007 CHAMBER NO. 7 | 1.00 | EACH | 100,000 | 100,000 |
| 044 | 51.11C008 CHAMBER NO. 8 | 1.00 | EACH | 100,000 | 100,000 |
| 045 | 51.11C009 CHAMBER NO. 9 | 1.00 | EACH | 100,000 | 100,000 |
| 046 | 51.11P004 STANDARD 4'-0" DIAMETER PRECAST MANHOLE | 9.00 | EACH | 8,500 | 76,500 |
| 047 | 51.11P005 STANDARD 5'-0" DIAMETER PRECAST MANHOLE | 4.00 | EACH | 10,000 | 40,000 |
| 048 | 51.11P006 STANDARD 6'-0" DIAMETER PRECAST MANHOLE | 1.00 | EACH | 12,000 | 12,000 |

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NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION
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BID SCHEDULE FORM

| COL. 1 SEQ. NO. | COL. 2 ITEM NUMBER and DESCRIPTION | COL. 3 ENGINEERS ESTIMATE OF QUANTITY | COL. 4 UNIT | COL. 5 UNIT PRICE (IN FIGURES) | | COL. 6 EXTENDED AMOUNT (IN FIGURES) | |
|--------------------|---------------------------------------|--|----------------|--------------------------------------|-----|---|-----|
| | | | | DOLLARS | CTS | DOLLARS | CTS |
| 049 | 51.21A001000C ACCESS MANHOLE NO. 1 | 1.00 | EACH | 10,000 | - | 10,000 | - |
| 050 | 51.21A002000C ACCESS MANHOLE NO. 2 | 1.00 | EACH | 10,000 | - | 10,000 | - |
| 051 | 51.21A003000C ACCESS MANHOLE NO. 3 | 1.00 | EACH | 10,000 | - | 10,000 | - |
| 052 | 51.21A004000C ACCESS MANHOLE NO. 4 | 1.00 | EACH | 10,000 | - | 10,000 | - |
| 053 | 51.21A005000C ACCESS MANHOLE NO. 5 | 1.00 | EACH | 10,000 | - | 10,000 | - |
| 054 | 51.21A006000C ACCESS MANHOLE NO. 6 | 1.00 | EACH | 10,000 | - | 10,000 | - |

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NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION
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BID SCHEDULE FORM

| COL 1 SEQ. NO. | COL 2 ITEM NUMBER and DESCRIPTION | COL 3 ENGINEERS ESTIMATE OF QUANTITY | COL 4 UNIT | COL 5 UNIT PRICE (IN FIGURES) DOLLARS | COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS | CIS |
|-------------------|--|---|---------------|--|---|-----|
| 055 | 51.21A007000C ACCESS MANHOLE NO. 7 | 1.00 | EACH | 10,000 | 10,000 | - |
| 056 | 51.21A008000C ACCESS MANHOLE NO. 8 | 1.00 | EACH | 10,000 | 10,000 | - |
| 057 | 51.21A009000C ACCESS MANHOLE NO. 9 | 1.00 | EACH | 10,000 | 10,000 | - |
| 058 | 51.21A010000C ACCESS MANHOLE NO. 10 | 1.00 | EACH | 10,000 | 10,000 | - |
| 059 | 51.21A011000C ACCESS MANHOLE NO. 11 | 1.00 | EACH | 10,000 | 10,000 | - |
| 060 | 51.21A012000C ACCESS MANHOLE NO. 12 | 1.00 | EACH | 10,000 | 10,000 | - |

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BID SCHEDULE FORM

| COL 1 SEQ. NO. | COL 2 ITEM NUMBER and DESCRIPTION | COL 3 ENGINEERS ESTIMATE OF QUANTITY | COL 4 UNIT | COL 5 UNIT PRICE (IN FIGURES) | | COL 6 EXTENDED AMOUNT (IN FIGURES) | |
|-------------------|--|---|---------------|-------------------------------------|-------|--|-------|
| | | | | DOLLARS | CENTS | DOLLARS | CENTS |
| 061 | 51.21A013000C ACCESS MANHOLE NO. 13 | 1.00 | EACH | 10,000 | - | 10,000 | - |
| 062 | 51.21A014000C ACCESS MANHOLE NO. 14 | 1.00 | EACH | 10,000 | - | 10,000 | - |
| 063 | 51.21A015000C ACCESS MANHOLE NO. 15 | 1.00 | EACH | 10,000 | - | 10,000 | - |
| 064 | 51.21A016000C ACCESS MANHOLE NO. 16 | 1.00 | EACH | 10,000 | - | 10,000 | - |
| 065 | 51.21A017000C ACCESS MANHOLE NO. 17 | 1.00 | EACH | 10,000 | - | 10,000 | - |
| 066 | 51.21A018000C ACCESS MANHOLE NO. 18 | 1.00 | EACH | 10,000 | - | 10,000 | - |

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|-------------------|--|--|---------------|--|---|--------------|
| 067 | 51.21S0A3000V STANDARD SHALLOW MANHOLE TYPE A-3 | 2.00 | EACH | 10,000 | 20,000 | - |
| 068 | 51.21S0B1000V STANDARD MANHOLE TYPE B-1 | 22.00 | EACH | 10,000 | 220,000 | - |
| 069 | 51.21S0B2000V STANDARD MANHOLE TYPE B-2 | 2.00 | EACH | 12,000 | 24,000 | - |
| 070 | 51.23RF REPLACEMENT OF EXISTING MANHOLE FRAME AND COVER | 3.00 | EACH | 5,000 | 15,000 | - |
| 071 | 51.41S001 STANDARD CATCH BASIN, TYPE 1 | 36.00 | EACH | 10,000 | 360,000 | - |
| 072 | 51.41S002 STANDARD CATCH BASIN, TYPE 2 | 3.00 | EACH | 7,500 | 22,500 | - |

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BID SCHEDULE FORM

| COL 1 SEQ. NO. | COL 2 ITEM NUMBER and DESCRIPTION | COL 3 ENGINEER'S ESTIMATE OF QUANTITY | COL 4 UNIT | COL 5 UNIT PRICE (IN FIGURES) DOLLARS CTS | COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS CTS |
|-------------------|---|--|---------------|--|---|
| 073 | 51.42S1SO INCREMENTAL COST OF STANDARD CATCH BASIN TYPE 3 WITH CURB PIECE IN LIEU OF STANDARD CATCH BASIN TYPE 1 | 12.00 | EACH | 11,000 | 132,000 |
| 074 | 51.61F000 OUTFALL | 1.00 | EACH | 500,000 | 500,000 |
| 075 | 52.11D12 12" DUCTILE IRON PIPE BASIN CONNECTION | 1,200.00 | L.F. | 200 | 240,000 |
| 076 | 52.21V08 8" E.S.V.P. RISER FOR HOUSE CONNECTION | 292.00 | V.F. | 85 | 24,820 |
| 077 | 52.21V10 10" E.S.V.P. RISER FOR HOUSE CONNECTION | 30.00 | V.F. | 75 | 2,250 |
| 078 | 52.31V06S10 6" E.S.V.P. SPUR FOR HOUSE CONNECTION ON 10" E.S.V.P. SANITARY SEWER | 70.00 | EACH | 75 | 5,250 |

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BID SCHEDULE FORM

| COL 1 SEQ NO | COL 2 ITEM NUMBER AND DESCRIPTION | COL 3 ENGINEERS ESTIMATE OF QUANTITY | COL 4 UNIT | COL 5 UNIT PRICE (IN FIGURES) DOLLARS | COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS | COL 7 UNITS |
|-----------------|--|---|---------------|--|---|----------------|
| 079 | 52.31V06S12 6" E.S.V.P. SPUR FOR HOUSE CONNECTION ON 12" E.S.V.P. SANITARY SEWER | 10.00 | EACH | 75 | 750 | - |
| 080 | 52.31V08S10 8" E.S.V.P. SPUR FOR HOUSE CONNECTION ON 10" E.S.V.P. SANITARY SEWER | 2.00 | EACH | 85 | 170 | - |
| 081 | 52.31V08S12 8" E.S.V.P. SPUR FOR HOUSE CONNECTION ON 12" E.S.V.P. SANITARY SEWER | 1.00 | EACH | 85 | 85 | - |
| 082 | 52.41V06R 6" E.S.V.P. HOUSE CONNECTION DRAIN ON CONCRETE CRADLE (RECONNECTION) | 885.00 | L.F. | 85 | 75,225 | - |
| 083 | 52.41V08R 8" E.S.V.P. HOUSE CONNECTION DRAIN ON CONCRETE CRADLE (RECONNECTION) | 55.00 | L.F. | 85 | 4,675 | - |
| 084 | 53.11DR TELEVISION INSPECTION AND DIGITAL AUDIO-VISUAL RECORDING OF SEWERS | 6,950.00 | L.F. | 5 | 34,750 | - |

BID SCHEDULE FORM

| COL 1 SEQ. NO | COL 2 ITEM NUMBER and DESCRIPTION | COL 3 ENGINEER'S ESTIMATE OF QUANTITY | COL 4 UNIT | COL 5 UNIT PRICE (IN FIGURES) DOLLARS | COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS |
|------------------|---|--|---------------|--|---|
| 085 | 557.2001 STRUCTURAL APPROACH SLAB WITH INTEGRAL WEARING SURFACE TYPE 1 FRICTION | 130.00 | S.Y. | 10 | 1,300 |
| 086 | 557.30 SIDEWALKS AND SAFETY WALKS | 80.00 | S.Y. | 10 | 800 |
| 087 | 579.02 REINFORCING BAR EXPOSURE | 290.00 | S.F. | 2 | 580 |
| 088 | 580.04 REMOVAL OF CONCRETE APPROACH SLAB | 1,175.00 | S.F. | 10 | 11,750 |
| 089 | 6.01 AC CLEARING AND GRUBBING | 1,989.00 | S.Y. | 1 | 1,989 |
| 090 | 6.02 AAN UNCLASSIFIED EXCAVATION | 7,725.00 | C.Y. | 15 | 115,875 |

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BID SCHEDULE FORM

| COL 1 SEQ. NO. | COL 2 ITEM NUMBER and DESCRIPTION | COL 3 ENGINEER'S ESTIMATE QUANTITY | COL 4 UNIT PRICE (UNITS/FIGURES) | COL 5 EXTENDED AMOUNT (FIGURES) DOLLARS | COL 6 UNITS |
|-------------------|--|---|--|--|----------------|
| 091 | 6.02 XHEC INCREMENTAL COST FOR MODIFYING WORK METHODS NEAR (WITHIN 3 FEET OF) TRANSIT FACILITIES AND BUILDING VAULTS | 190.00 | C.Y. 10 - | 1,900 - | - |
| 092 | 6.02 XSCW INCREMENTAL COST FOR USING SPECIAL CARE WORK METHODS NEAR (FROM 3 FEET TO 50 FEET) TRANSIT FACILITIES | 11,750.00 | C.Y. 5 - | 58,750 - | - |
| 093 | 6.25 RS TEMPORARY SIGNS | 6,000.00 | S.F. 1 - | 6,000 - | - |
| 094 | 6.26 TIMBER CURB | 29,250.00 | L.F. 1 - | 29,250 - | - |
| 095 | 6.30 AA BEAM TYPE GUIDE RAIL | 50.00 | L.F. 35 - | 1,750 - | - |
| 096 | 6.30 AR REMOVE EXISTING GUIDE RAIL | 50.00 | L.F. 5 - | 250 - | - |

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|-------------------|---|---|---------------|--|---|
| 097 | 6.34 AD CHAIN LINK FENCE, 8'-0" HIGH | 100.00 | L.F. | 35 - | 3,500 - |
| 098 | 6.34 X REMOVE AND DISPOSE OF EXISTING CHAIN LINK FENCE | 100.00 | L.F. | 5 - | 500 - |
| 099 | 6.40 DC ENGINEER'S FIELD OFFICE WITH CONFERENCE ROOM | 36.00 | MONTH | 10,000 - | 360,000 - |
| 100 | 6.44 THERMOPLASTIC REFLECTORIZED PAVEMENT MARKINGS (4" WIDE) | 10,000.00 | L.F. | 1 - | 10,000 - |
| 101 | 6.49 TEMPORARY PAVEMENT MARKINGS (4" WIDE) | 15,000.00 | L.F. | 1 - | 15,000 - |
| 102 | 6.52 CG CROSSING GUARD | 4,800.00 | P/HR | 20 - | 96,000 - |

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NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION
 DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN

PROJECT ID: CONISPH2B
 CONTRACT PIN: 8502013SE0045C

BID SCHEDULE FORM

| COL 1 SEQ. NO. | COL 2 ITEM NUMBER and DESCRIPTION | COL 3 ENGINEERS ESTIMATE OF QUANTITY | COL 4 UNIT | COL 5 UNIT PRICE (IN FIGURES) DOLLARS | COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS |
|-------------------|--|---|---------------|--|---|
| 103 | 6.53 REMOVE EXISTING LANE MARKINGS (4" WIDE) | 10,000.00 | L.F. | 1 - | 10,000 - |
| 104 | 6.59 A CONCRETE BARRIER, TYPE A | 2,600.00 | L.F. | 20 - | 52,000 - |
| 105 | 6.84 B LOLLOPOP TYPE BUS STOP SIGNS PRICE BID SHALL BE FOR THE FIXED SUM OF \$ 12,000.00 | 1.00 | F.S. | 12,000.00 | 12,000.00 |
| 106 | 6.87 PLASTIC BARRELS | 5,500.00 | EACH | 1 - | 5,500 - |
| 107 | 60.11R516 FURNISHING AND DELIVERING 16-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 55) | 25.00 | L.F. | 360 - | 7,500 - |

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NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION
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| COL 1 SEQ. NO. | COL 2 ITEM NUMBER AND DESCRIPTION | COL 3 ENGINEER'S ESTIMATE OF QUANTITY | COL 4 UNIT | COL 5 UNIT PRICE (IN FIGURES) DOLLARS | COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS |
|-------------------|--|--|---------------|--|---|
| 108 | 60.11R520 FURNISHING AND DELIVERING 20-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 55) | 4,660.00 | L.F. | 350 | 1,631,000 |
| 109 | 60.11R524 FURNISHING AND DELIVERING 24-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 55) | 130.00 | L.F. | 375 | 48,750 |
| 110 | 60.11R530 FURNISHING AND DELIVERING 30-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 55) | 25.00 | L.F. | 500 | 12,500 |
| 111 | 60.11R606 FURNISHING AND DELIVERING 6-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 56) | 480.00 | L.F. | 150 | 72,000 |
| 112 | 60.11R608 FURNISHING AND DELIVERING 8-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 56) | 325.00 | L.F. | 200 | 65,000 |
| 113 | 60.11R612 FURNISHING AND DELIVERING 12-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 56) | 1,115.00 | L.F. | 250 | 278,750 |

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NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION
 DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN

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BID SCHEDULE FORM

| COL 1 SEQ. NO. | COL 2 ITEM NUMBER AND DESCRIPTION | COL 3 ENGINEERS ESTIMATE OF QUANTITY | COL 4 UNIT | COL 5 UNIT PRICE (IN FIGURES) DOLLARS | COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS | COL 7 CTS |
|-------------------|---|---|---------------|--|---|--------------|
| 114 | 60.12D06 LAYING 6-INCH DUCTILE IRON PIPE AND FITTINGS | 525.00 | L.F. | 200 | 105,000 | - |
| 115 | 60.12D08 LAYING 8-INCH DUCTILE IRON PIPE AND FITTINGS | 350.00 | L.F. | 350 | 122,500 | - |
| 116 | 60.12D12 LAYING 12-INCH DUCTILE IRON PIPE AND FITTINGS | 1,030.00 | L.F. | 400 | 412,000 | - |
| 117 | 60.12D16 LAYING 16-INCH DUCTILE IRON PIPE AND FITTINGS | 30.00 | L.F. | 450 | 13,500 | - |
| 118 | 60.12D20 LAYING 20-INCH DUCTILE IRON PIPE AND FITTINGS | 4,780.00 | L.F. | 600 | 2,868,000 | - |
| 119 | 60.12D24 LAYING 24-INCH DUCTILE IRON PIPE AND FITTINGS | 140.00 | L.F. | 625 | 87,500 | - |

BID SCHEDULE FORM

| COL 1 SEQ. NO. | COL 2 ITEM NUMBER and DESCRIPTION | COL 3 ENGINEERS ESTIMATE OF QUANTITY | COL 4 UNIT | COL 5 UNIT PRICE (IN FIGURES) DOLLARS CTS | COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS CTS |
|-------------------|---|---|---------------|---|--|
| 120 | 60.12D30 LAYING 30-INCH DUCTILE IRON PIPE AND FITTINGS | 30.00 | L.F. | 650 | 19,500 |
| 121 | 60.13M0A24 FURNISHING AND DELIVERING DUCTILE IRON MECHANICAL JOINT 24-INCH DIAMETER AND SMALLER FITTINGS, INCLUDING WEDGE TYPE RETAINER GLANDS | 38.00 | TONS | 5,000 | 190,000 |
| 122 | 60.13M5S30 FURNISHING AND DELIVERING 30-INCH DUCTILE IRON MECHANICAL JOINT SLEEVES (CLASS 55) | 2.00 | EACH | 5,000 | 10,000 |
| 123 | 60.21SP3T20 FURNISHING, DELIVERING AND LAYING 20-INCH STRAIGHT STEEL PIPE, 3/8-INCH WALL THICKNESS | 50.00 | L.F. | 2,000 | 100,000 |
| 124 | 60.21SP3T30 FURNISHING, DELIVERING AND LAYING 30-INCH STRAIGHT STEEL PIPE, 3/8-INCH WALL THICKNESS | 165.00 | L.F. | 3,000 | 495,000 |
| 125 | 60.21SP3T36 FURNISHING, DELIVERING AND LAYING 36-INCH STRAIGHT STEEL PIPE, 3/8-INCH WALL THICKNESS | 1,610.00 | L.F. | 5,000 | 8,050,000 |

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BID SCHEDULE FORM

| COL 1 SEQ. NO. | COL 2 ITEM NUMBER AND DESCRIPTION | COL 3 ENGINEERS ESTIMATE QUANTITY | COL 4 UNIT | COL 5 UNIT PRICE (FIGURES) DOLLARS | COL 6 EXTENDED AMOUNT (FIGURES) DOLLARS | COL 7 OTS |
|-------------------|---|--|---------------|---|--|-------------------|
| 126 | 60.22BR3T30 FURNISHING, DELIVERING AND LAYING 30-INCH STEEL BENDS AND REDUCERS, 3/8-INCH WALL THICKNESS | 30.00 | L.F. | 5,000 | 150,000 | - |
| 127 | 60.22BR3T36 FURNISHING, DELIVERING AND LAYING 36-INCH STEEL BENDS AND REDUCERS, 3/8-INCH WALL THICKNESS | 25.00 | L.F. | 5,500 | 137,500 | - |
| 128 | 60.24SB36 FURNISHING, DELIVERING AND INSTALLING 36-INCH DIAMETER STEEL BULKHEAD | 1.00 | EACH | 5,000 | 5,000 | - |
| 129 | 60.25PSO FURNISHING, DELIVERING AND INSTALLING PLATE STEEL OUTLETS ON STEEL PIPE, ACCESS MANHOLE OUTLETS WITH COVERS, AND NUTS AND BOLTS COMPLETE | 6,500.00 | LBS. | 15 | 97,500 | - |
| 130 | 60.26M48FA FURNISHING, DELIVERING AND INSTALLING STEEL MANIFOLD WITH 48-INCH STRAIGHT HEADER 7/8-INCH THICKNESS, ONE 36-INCH OUTLET 5/8-INCH THICKNESS, TWO 24-INCH OUTLETS 1/2-INCH THICKNESS AND TWO 48-INCH BULKHEADS 1/2-INCH THICKNESS, ETC, COMPLETE | 2.00 | EACH | 50,000 50,000 | 500,000 100,000 | 0 0 |

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| COL. 1 SEQ. NO. | COL. 2 ITEM NUMBER and DESCRIPTION | COL. 3 ENGINEER'S ESTIMATE OF QUANTITY | COL. 4 UNIT | COL. 5 UNIT PRICE (IN FIGURES) DOLLARS CTS | COL. 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS CTS |
|--------------------|--|---|----------------|---|--|
| 131 | 60.27RSC30 FURNISHING, DELIVERING AND INSTALLING 30-INCH DIAMETER BOLTED, SPLIT SLEEVE-TYPE RESTRAINED COUPLING | 1.00 | EACH | 10,000 | 10,000 |
| 132 | 60.27RSC36 FURNISHING, DELIVERING AND INSTALLING 36-INCH DIAMETER BOLTED, SPLIT SLEEVE-TYPE RESTRAINED COUPLING | 1.00 | EACH | 15,000 | 15,000 |
| 133 | 60.29CP FURNISHING, INSTALLING AND TESTING CORROSION CONTROL AND/OR CATHODIC PROTECTION SYSTEM | 1.00 | L.S. | 10,000 | 10,000 |
| 134 | 61.11DFM06 FURNISHING AND DELIVERING 6-INCH FLANGED-MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLAND | 7.00 | EACH | 1,500 | 10,500 |
| 135 | 61.11DFM20 FURNISHING AND DELIVERING 20-INCH FLANGED-MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLAND | 6.00 | EACH | 20,000 | 120,000 |

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BID SCHEDULE FORM

| COL 1 SEQ. NO. | COL 2 ITEM NUMBER AND DESCRIPTION | COL 3 ENGINEERS ESTIMATE OF QUANTITY | COL 4 UNIT | COL 5 UNIT PRICE (IN FIGURES) DOLLARS CTS | COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS CTS |
|-------------------|---|---|---------------|---|--|
| 136 | 61.11DMM06 FURNISHING AND DELIVERING 6-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS | 20.00 | EACH | 2,000 | 40,000 |
| 137 | 61.11DMM08 FURNISHING AND DELIVERING 8-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS | 1.00 | EACH | 2,500 | 2,500 |
| 138 | 61.11DMM12 FURNISHING AND DELIVERING 12-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS | 3.00 | EACH | 3,500 | 10,500 |
| 139 | 61.11DMM20 FURNISHING AND DELIVERING 20-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS | 16.00 | EACH | 15,000 | 240,000 |
| 140 | 61.11TWC03 FURNISHING AND DELIVERING 3-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS | 2.00 | EACH | 1 | \$ 2.00 1,000 |

BID SCHEDULE FORM

| COL 1 SEQ. NO. | COL 2 ITEM NUMBER and DESCRIPTION | COL 3 ENGINEERS ESTIMATE OF QUANTITY | COL 4 UNIT | COL 5 UNIT PRICE (IN FIGURES) | | COL 6 EXTENDED AMOUNT (IN FIGURES) | |
|-------------------|---|---|---------------|-------------------------------------|-------|--|-------|
| | | | | DOLLARS | CENTS | DOLLARS | CENTS |
| 141 | 61.11TWC04 FURNISHING AND DELIVERING 4-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS | 2.00 | EACH | 750 | - | 1,500 | - |
| 142 | 61.11TWC06 FURNISHING AND DELIVERING 6-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS | 2.00 | EACH | 1,000 | - | 2,000 | - |
| 143 | 61.11TWC08 FURNISHING AND DELIVERING 8-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS | 2.00 | EACH | 1,500 | - | 3,000 | - |
| 144 | 61.11TWC10 FURNISHING AND DELIVERING 10-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS | 2.00 | EACH | 1,750 | - | 3,500 | - |
| 145 | 61.11TWC12 FURNISHING AND DELIVERING 12-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS | 2.00 | EACH | 2,000 | - | 4,000 | - |
| 146 | 61.12DFM06 SETTING 6-INCH FLANGED-MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLAND | 7.00 | EACH | 500 | - | 3,500 | - |

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BID SCHEDULE FORM

| COL 1 SEQ. NO. | COL 2 ITEM NUMBER AND DESCRIPTION | COL 3 ENGINEERS ESTIMATE QUANTITY | COL 4 UNIT | COL 5 UNIT PRICE (IN FIGURES) DOLLARS | COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS | COL 7 C/S |
|-------------------|---|--|---------------|--|---|--------------|
| 136 | 61.11DMM06 FURNISHING AND DELIVERING 6-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS | 20.00 | EACH | 2,000 | 40,000 | - |
| 137 | 61.11DMM08 FURNISHING AND DELIVERING 8-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS | 1.00 | EACH | 2,500 | 2,500 | - |
| 138 | 61.11DMM12 FURNISHING AND DELIVERING 12-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS | 3.00 | EACH | 3,500 | 10,500 | - |
| 139 | 61.11DMM20 FURNISHING AND DELIVERING 20-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS | 16.00 | EACH | 15,000 | 240,000 | - |
| 140 | 61.11TWC03 FURNISHING AND DELIVERING 3-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS | 2.00 | EACH | 1 | 1,000 | - |

BID SCHEDULE FORM

| COL 1 SEQ. NO. | COL 2 ITEM NUMBER and DESCRIPTION | COL 3 ENGINEERS ESTIMATE OF QUANTITY | COL 4 UNIT | COL 5 UNIT PRICE (IN FIGURES) DOLLARS CTS | COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS CTS |
|-------------------|---|---|---------------|---|--|
| 141 | 61.11TWC04 FURNISHING AND DELIVERING 4-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS | 2.00 | EACH | 750 | 1,500 |
| 142 | 61.11TWC06 FURNISHING AND DELIVERING 6-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS | 2.00 | EACH | 1,000 | 2,000 |
| 143 | 61.11TWC08 FURNISHING AND DELIVERING 8-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS | 2.00 | EACH | 1,500 | 3,000 |
| 144 | 61.11TWC10 FURNISHING AND DELIVERING 10-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS | 2.00 | EACH | 1,750 | 3,500 |
| 145 | 61.11TWC12 FURNISHING AND DELIVERING 12-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS | 2.00 | EACH | 2,000 | 4,000 |
| 146 | 61.12DFM06 SETTING 6-INCH FLANGED-MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLAND | 7.00 | EACH | 500 | 3,500 |

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NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION
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|-------------------|--|---|---------------|--|---|
| 147 | 61.12DFM20 SETTING 20-INCH FLANGED-MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLAND | 6.00 | EACH | 1,000 - | 6,000 - |
| 148 | 61.12DMM06 SETTING 6-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS | 20.00 | EACH | 500 - | 10,000 - |
| 149 | 61.12DMM08 SETTING 8-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS | 1.00 | EACH | 500 - | 500 - |
| 150 | 61.12DMM12 SETTING 12-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS | 3.00 | EACH | 500 - | 1,500 - |
| 151 | 61.12DMM20 SETTING 20-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS | 16.00 | EACH | 1,000 - | 16,000 - |
| 152 | 61.12TWC03 SETTING 3-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS | 2.00 | EACH | 500 - | 1,000 - |

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|-------------------|--|---|---------------|--|---|
| 153 | 61.12TWC04 SETTING 4-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS | 2.00 | EACH | 500 | 1,000 |
| 154 | 61.12TWC06 SETTING 6-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS | 2.00 | EACH | 500 | 1,000 |
| 155 | 61.12TWC08 SETTING 8-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS | 2.00 | EACH | 500 | 1,000 |
| 156 | 61.12TWC10 SETTING 10-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS | 2.00 | EACH | 500 | 1,000 |
| 157 | 61.12TWC12 SETTING 12-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS | 2.00 | EACH | 500 | 1,000 |
| 158 | 61.21BVB30 FURNISHING, DELIVERING AND INSTALLING 30-INCH BUTTERFLY VALVE WITH BY-PASS ARRANGEMENT AND OUTLET, COMPLETE | 1.00 | EACH | 75,000 | 75,000 |

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| COL 1 SEQ. NO. | COL 2 ITEM NUMBER AND DESCRIPTION | COL 3 ENGINEERS ESTIMATE OF QUANTITY | COL 4 UNIT | COL 5 UNIT PRICE (IN FIGURES) DOLLARS / CTS | COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS / CTS |
|-------------------|---|---|---------------|--|---|
| 159 | 61.21BVB36 FURNISHING, DELIVERING AND INSTALLING 36-INCH BUTTERFLY VALVE WITH BY-PASS ARRANGEMENT AND OUTLET, COMPLETE | 1.00 | EACH | 100,000 | 100,000 |
| 160 | 61.24BEJ20 FURNISHING, DELIVERING AND INSTALLING STAINLESS STEEL BELLOWS TYPE EXPANSION JOINT FOR 20-INCH PIPE | 1.00 | EACH | 25,000 | 25,000 |
| 161 | 61.24BEJ30 FURNISHING, DELIVERING AND INSTALLING STAINLESS STEEL BELLOWS TYPE EXPANSION JOINT FOR 30-INCH PIPE | 1.00 | EACH | 30,000 | 30,000 |
| 162 | 61.31PV20 FURNISHING, DELIVERING AND INSTALLING 20-INCH PRESSURE REGULATOR VALVE | 1.00 | EACH | 50,000 | 50,000 |
| 163 | 62.11SD FURNISHING AND DELIVERING HYDRANTS | 25.00 | EACH | 3,000 | 75,000 |
| 164 | 62.12SG SETTING HYDRANTS COMPLETE WITH WEDGE TYPE RETAINER GLANDS | 24.00 | EACH | 1,500 | 36,000 |

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|-------------------|--|---|---------------|--|---|
| 165 | 62.13RH REMOVING HYDRANTS | 17.00 | EACH | 500 | 8,500 |
| 166 | 62.14FS FURNISHING, DELIVERING AND INSTALLING HYDRANT FENDERS | 52.00 | EACH | 200 | 10,400 |
| 167 | 63.11MH FURNISHING, DELIVERING AND INSTALLING 36-INCH CAST IRON MANHOLE HEADS AND COVERS | 6.00 | TONS | 1,000 | 6,000 |
| 168 | 63.11MS FURNISHING, DELIVERING AND INSTALLING MANHOLE STEPS TYPE PS2-PF | 115.00 | EACH | 25 | 2,875 |
| 169 | 63.11VC FURNISHING AND DELIVERING VARIOUS CASTINGS | 39.00 | TONS | 1,000 | 39,000 |
| 170 | 64.11EL WITHDRAWING AND REPLACING HOUSE SERVICES USING 1-1/2- INCH OR LARGER SCREW TAPS | 25.00 | EACH | 250 | 6,250 |

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|-------------------|---|--|---------------|--|--|
| 171 | 64.11ST WITHDRAWING AND REPLACING HOUSE SERVICES USING SMALLER THAN 1-1/2-INCH SCREW TAPS | 60.00 | EACH | 200 - | 12,000 - |
| 172 | 64.12COEG CUTTING AND OFFSETTING HOUSE SERVICE WATER CONNECTIONS (EQUAL TO OR GREATER THAN 3-INCH DIAMETER) | 200.00 | L.F. | 50 - | 10,000 - |
| 173 | 64.12COLT CUTTING AND OFFSETTING HOUSE SERVICE WATER CONNECTIONS (LESS THAN 3-INCH DIAMETER) | 500.00 | L.F. | 45 - | 22,500 - |
| 174 | 64.12ESEG EXTENDING HOUSE SERVICE WATER CONNECTIONS (EQUAL TO OR GREATER THAN 3-INCH DIAMETER) | 350.00 | L.F. | 45 - | 15,750 - |
| 175 | 64.12ESLT EXTENDING HOUSE SERVICE WATER CONNECTIONS (LESS THAN 3-INCH DIAMETER) | 850.00 | L.F. | 30 - | 25,500 - |
| 176 | 64.13WC08 FURNISHING, DELIVERING AND INSTALLING WET CONNECTION SLEEVE ON 8-INCH WATER MAIN PIPE WITH VARIOUS OUTLETS | 2.00 | EACH | 1,000 - | 2,000 - |

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|-------------------|---|---|---------------|--|---|--------------|
| 177 | 64.13WC12 FURNISHING, DELIVERING AND INSTALLING WET CONNECTION SLEEVE ON 12-INCH WATER MAIN PIPE WITH VARIOUS OUTLETS | 1.00 | EACH | 1,500 | 1,500 | - |
| 178 | 64.13WC20 FURNISHING, DELIVERING AND INSTALLING WET CONNECTION SLEEVE ON 20-INCH WATER MAIN PIPE WITH VARIOUS OUTLETS | 9.00 | EACH | 2,000 | 18,000 | - |
| 179 | 65.11BR FURNISHING, DELIVERING AND INSTALLING BANDS, RODS, WASHERS, ETC., COMPLETE, FOR RESTRAINING JOINTS | 500.00 | LBS. | 1 | 500 | - |
| 180 | 65.21PS FURNISHING AND PLACING POLYETHYLENE SLEEVE Unit price bid shall not be less than: \$ 0.25 | 3,500.00 | L.F. | 0 | 875 | - |
| 181 | 65.31FF FURNISHING, DELIVERING AND PLACING FILTER FABRIC Unit price bid shall not be less than: \$ 0.05 | 72,200.00 | S.F. | 0 | 3,610 | - |
| 182 | 65.41PS06 FURNISHING, DELIVERING AND INSTALLING 6-INCH PIPE-TO-WALL PENETRATION SEAL, INCLUDING STEEL SLEEVE AND ANCHOR/WATER STOP PLATE | 9.00 | EACH | 1,000 | 9,000 | - |

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|-------------------|--|--|---------------|--|---|---------------|
| 183 | 65.41PS12 FURNISHING, DELIVERING AND INSTALLING 12-INCH PIPE-TO-WALL PENETRATION SEAL, INCLUDING STEEL SLEEVE AND ANCHOR/WATER STOP PLATE | 3.00 | EACH | 1,500 | 4,500 | - |
| 184 | 65.41PS20 FURNISHING, DELIVERING AND INSTALLING 20-INCH PIPE-TO-WALL PENETRATION SEAL, INCLUDING STEEL SLEEVE AND ANCHOR/WATER STOP PLATE | 10.00 | EACH | 2,000 | 20,000 | - |
| 185 | 65.41PS30 FURNISHING, DELIVERING AND INSTALLING 30-INCH PIPE-TO-WALL PENETRATION SEAL, INCLUDING STEEL SLEEVE AND ANCHOR/WATER STOP PLATE | 4.00 | EACH | 2,500 | 10,000 | - |
| 186 | 65.41PS36 FURNISHING, DELIVERING AND INSTALLING 36-INCH PIPE-TO-WALL PENETRATION SEAL, INCLUDING STEEL SLEEVE AND ANCHOR/WATER STOP PLATE | 2.00 | EACH | 3,000 | 6,000 | - |
| 187 | 65.51PC FURNISHING AND PLACING CAST-IN-PLACE CONCRETE CLASS 40 AND PRECAST CONCRETE CLASS 50 | 305.00 | C.Y. | 250 | 76,250 | - |

BID SCHEDULE FORM

| COL 1 SEQ. NO. | COL 2 ITEM NUMBER and DESCRIPTION | COL 3 ENGINEERS ESTIMATE OF QUANTITY | COL 4 UNIT | COL 5 UNIT PRICE (IN FIGURES) DOLLARS | COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS |
|-------------------|--|---|---------------|--|---|
| 188 | 65.61SS FURNISHING, DELIVERING AND PLACING STRUCTURAL, REINFORCING AND MISCELLANEOUS STEEL | 107,500.00 | LBS. | 1 | 107,500 |
| 189 | 65.71SG FURNISHING, DELIVERING AND PLACING SCREENED GRAVEL OR SCREENED BROKEN STONE BEDDING | 1,700.00 | C.Y. | 35.50 | 60,350 |
| 190 | 7.13 B MAINTENANCE OF SITE Unit price bid shall not be less than: \$ 7,500.00 | 30.00 | MONTH | 7,500 | 225,000 |
| 191 | 7.36 PEDESTRIAN STEEL BARRICADES | 24,000.00 | L.F. | 1 | 24,000 |
| 192 | 7.88 AA RODENT INFESTATION SURVEY AND MONITORING Unit price bid shall not be less than: \$ 10,000.00 | 1.00 | L.S. | 10,000 | 10,000 |
| 193 | 7.88 AB RODENT BAIT STATIONS Unit price bid shall not be less than: \$ 60.00 | 550.00 | EACH | 60 | 33,000 |

11/12/2013 12:00 AM

NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION
 DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN

PROJECT ID: CONISPH2B
 CONTRACT PIN: 8502013SE0045C

BID SCHEDULE FORM

| COL 1 SEQ. NO. | COL 2 ITEM NUMBER AND DESCRIPTION | COL 3 ENGINEERS SCHEDULE OF QUANTITY | COL 4 UNIT | COL 5 SURFACE QUANTITIES (IN FIGURES) | COL 6 EXTENDED AMOUNT (IN FIGURES) |
|-------------------|--|---|---------------|--|--|
| | | | | DOLLARS | DOLLARS |
| 194 | 7.88 AC BAITING OF RODENT BAIT STATIONS Unit price bid shall not be less than: \$ 9.25 | 550.00 | EACH | 9 25 | 5,087 50 |
| 195 | 7.88 AD WATERBUG BAIT APPLICATIONS Unit price bid shall not be less than: \$ 65.00 | 90.00 | BLOCK | 65 - | 5,850 - |
| 196 | 70.11TU TIMBER PILES (UNTREATED) Unit price bid shall not be less than: \$ 12.50 | 47,500.00 | V.F. | 12 50 | 593,750 - |
| 197 | 70.13MN MINI-PILES (GROUTED) | 26,400.00 | V.F. | 25 - | 660,000 - |
| 198 | 70.13MT MINI-PILES, LOAD TEST | 3.00 | EACH | 5,000 - | 15,000 - |
| 199 | 70.21DK DECKING | 19,600.00 | S.Y. | 1 - | 19,600 - |

BID SCHEDULE FORM

| COL 1 SEQ. NO | COL 2 ITEM NUMBER and DESCRIPTION | COL 3 ENGINEER'S ESTIMATE OF QUANTITY | COL 4 UNIT | COL 5 UNIT PRICE (IN FIGURES) DOLLARS CTS | COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS CTS |
|------------------|--|--|---------------|--|---|
| 200 | 70.31FN FENCING Unit price bid shall not be less than: \$ 2.00 | 32,700.00 | L.F. | 2 - | 65,400 - |
| 201 | 70.51EO EXCAVATION OF BOULDERS IN OPEN CUT Unit price bid shall not be less than: \$ 75.00 | 120.00 | C.Y. | 75 - | 9,000 - |
| 202 | 70.61RE ROCK EXCAVATION | 10.00 | C.Y. | 75 - | 750 - |
| 203 | 70.71SB STONE BALLAST Unit price bid shall not be less than: \$ 15.00 | 1,550.00 | C.Y. | 15 - | 23,250 - |
| 204 | 70.81CB CLEAN BACKFILL Unit price bid shall not be less than: \$ 15.00 | 13,500.00 | C.Y. | 15 - | 202,500 - |
| 205 | 70.91SW12 FURNISHING AND PLACING SHEETING AND BRACING IN TRENCH FOR WATER MAIN PIPE 12-INCH IN DIAMETER AND LESS | 11,100.00 | S.F. | 0 10 | 1,110 - |

11/12/2016 12:00 AM

NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION
 DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN

PROJECT ID: CONISPH2B
 CONTRACT PIN: 8502013SE0045C

BID SCHEDULE FORM

| COL 1 SEC. NO. | COL 2 ITEM NUMBER and DESCRIPTION | COL 3 ESTIMATE OF QUANTITY | COL 4 UNIT | COL 5 UNIFORM MEASURE (IN FIGURES) | COL 6 EXCLUDED AMOUNT (IN FIGURES) | COL 7 DOLLARS | COL 8 C.T.S. |
|-------------------|--|----------------------------------|---------------|---|--|------------------|-----------------|
| 206 | 70.91SW20 FURNISHING AND PLACING SHEETING AND BRACING IN TRENCH FOR WATER MAIN PIPE 20-INCH IN DIAMETER | 53,500.00 | S.F. | 0 | 10 | 5,350 | - |
| 207 | 72.11HF HYDRAULIC FILL FOR ABANDONED SEWERS AND WATER MAINS | 150.00 | C.Y. | 15 | - | 2,250 | - |
| 208 | 73.11AB ADDITIONAL BRICK MASONRY Unit price bid shall not be less than: \$ 62.50 | 15.00 | C.Y. | 62 | 50 | 937 | 50 |
| 209 | 73.21AC ADDITIONAL CONCRETE Unit price bid shall not be less than: \$ 62.50 | 840.00 | C.Y. | 62 | 50 | 52,500 | - |
| 210 | 73.31AEO ADDITIONAL EARTH EXCAVATION INCLUDING TEST PITS (ALL DEPTHS) Unit price bid shall not be less than: \$ 20.00 | 4,000.00 | C.Y. | 20 | - | 80,000 | - |
| 211 | 73.41AG ADDITIONAL SELECT GRANULAR BACKFILL Unit price bid shall not be less than: \$ 15.00 | 440.00 | C.Y. | 15 | - | 6,600 | - |

BID SCHEDULE FORM

| COL 1 SEQ. NO. | COL 2 ITEM NUMBER and DESCRIPTION | COL 3 ENGINEERS ESTIMATE OF QUANTITY | COL 4 UNIT | COL 5 UNIT PRICE (IN FIGURES) DOLLARS CENTS | COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS CENTS |
|-------------------|---|---|---------------|--|---|
| 212 | 73.51AS ADDITIONAL STEEL REINFORCING BARS Unit price bid shall not be less than: \$ 1.00 | 151,000.00 | LBS. | 1 - | 151,000 - |
| 213 | 75.11RT REMOVAL OF ABANDONED TRACKS | 2,900.00 | L.F. | 1 - | 2,900 - |
| 214 | 76.11CR CONSTRUCTION REPORT | 1.00 | L.S. | 5,000 - | 5,000 - |
| 215 | 76.21MR MONITORING AND POST-CONSTRUCTION REPORT | 1.00 | L.S. | 5,000 - | 5,000 - |
| 216 | 8.01 C1 HANDLING, TRANSPORTING AND DISPOSAL OF NON-HAZARDOUS CONTAMINATED SOIL | 8,000.00 | TONS | 25 - | 200,000 - |
| 217 | 8.01 C2 SAMPLING AND TESTING OF CONTAMINATED/POTENTIALLY HAZARDOUS SOIL FOR DISPOSAL PURPOSES | 20.00 | SETS | 2,500 - | 50,000 - |

11/12/2015 12:00 AM

NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION
 DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN

PROJECT ID: CONISPH2B
 CONTRACT PIN: 8502013SE0045C

BID SCHEDULE FORM

| COL 1 SEQ. NO. | COL 2 ITEM NUMBER AND DESCRIPTION | COL 3 QUANTITY ESTIMATE | COL 4 UNIT | COL 5 UNIT PRICE (IN FIGURES) | COL 6 EXCEEDED AMOUNT (IN FIGURES) | COL 7 TOTALS DOLLARS | COL 8 TOTALS CTS |
|-------------------|--|-------------------------------|---------------|-------------------------------------|--|----------------------------|------------------------|
| 218 | 8.01 H HANDLING, TRANSPORTING AND DISPOSAL OF HAZARDOUS SOIL | 400.00 | TONS | 75 | 30,000 | | |
| 219 | 8.01 S HEALTH AND SAFETY | 1.00 | L.S. | 15,000 | 15,000 | | |
| 220 | 8.01 W1 REMOVAL, TREATMENT, AND DISCHARGE/DISPOSAL OF CONTAMINATED WATER | 90.00 | DAY | 100 | 9,000 | | |
| 221 | 8.01 W2 SAMPLING AND TESTING OF CONTAMINATED WATER | 6.00 | SETS | 1,000 | 6,000 | | |
| 222 | 8.02 A SPECIAL CARE EXCAVATION AND RESTORATION FOR SIDEWALK WORK | 2,100.00 | S.F. | 1 | 2,100 | | |
| 223 | 8.02 B SPECIAL CARE EXCAVATION AND RESTORATION FOR CURB WORK | 800.00 | L.F. | 1 | 800 | | |

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NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION
 DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN

PROJECT ID: CONISPH2B

CONTRACT PIN: 8502013SE0045C

BID SCHEDULE FORM

| COL 1 SEQ. NO. | COL 2 ITEM NUMBER and DESCRIPTION | COL 3 ENGINEERS ESTIMATE OF QUANTITY | COL 4 UNIT | COL 5 UNIT PRICE (IN FIGURES) DOLLARS CENTS | COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS CENTS |
|-------------------|---|---|---------------|--|---|
| 224 | 8.08 VARIABLE MESSAGE BOARD | 4.00 | EACH | 2,500 - | 10,000 - |
| 225 | 9.04 HW ALLOWANCE FOR ANTI-FREEZE ADDITIVE IN CONCRETE PRICE BID SHALL BE FOR THE FIXED SUM OF \$ 20,000.00 | 1.00 | F.S. | 20,000 00 | 20,000 00 |
| 226 | 9.30 STORM WATER POLLUTION PREVENTION | 1.00 | L.S. | 5,000 - | 5,000 - |
| 227 | 9.99 FLASHING ARROW BOARD | 10.00 | EACH | 1,500 - | 15,000 - |
| 228 | BMP-7.09 LICENSED SURVEYOR | 4.00 | DAY | 2,500 - | 10,000 - |

B - 42
 [REVISION # 1]

11/12/2013 12:00 AM

NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION
DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN

PROJECT ID: CONISPH2B
CONTRACT PIN: 8502013SE0045C

BID SCHEDULE FORM

| COL 1 SEQ. NO. | COL 2 ITEM NUMBER AND DESCRIPTION | COL 3 QUANTITY | COL 4 UNIT | COL 5 PRICE (IN FIGURES) | COL 6 EXTENDED AMOUNT (IN FIGURES) |
|-------------------|--|-------------------|---------------|--------------------------------|--|
| 229 | BMP-7.107-B RIP-RAP AND ANGULAR NATURAL FIELD STONE | 30.00 | C.Y. | 150 | 4,500 |
| 230 | BMP-7.304-A EXCAVATION | 1,163.00 | C.Y. | 1 | 1,163 |
| 231 | BMP-7.307-A GRADING | 18,535.00 | S.F. | 0 20 | 3,707 |
| 232 | BMP-7.401-I SEEDING | 9,981.00 | S.F. | 0 45 | 4,491 45 |
| 233 | BMP-7.401-J HERBACEOUS PLANTS (PLUGS) | 27,892.00 | EACH | 170,420 5 | 170,420 139,460 |
| 234 | BMP-7.401-K HERBACEOUS PLANTS (QUARTS) | 20.00 | EACH | 12 | 240 |

11/12/2015 12:00 AM

NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION
DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN

PROJECT ID: CONISPH2B

CONTRACT PIN: 8502013SE0045C

BID SCHEDULE FORM

| COL 1 SEQ. NO. | COL 2 ITEM NUMBER and DESCRIPTION | COL 3 ENGINEERS ESTIMATE OF QUANTITY | COL 4 UNIT | COL 5 UNIT PRICE (IN FIGURES) DOLLARS | COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS | COL 7 CTS |
|-------------------|--|---|---------------|--|---|--------------|
| 235 | BMP-7.404-A RESTORATION SPECIALIST | 500.00 | HRS | 65 | 32,500 | - |
| 236 | BMP-7.404-B EROSION AND SEDIMENT CONTROL LICENSED/CERTIFIED PROFESSIONAL | 124.00 | DAY | 250 | 31,000 | - |
| 237 | BMP-7.407-A EROSION CONTROL MAT | 1,854.00 | S.F. | 1 | 1,854 | - |
| 238 | BMP-7.413 TEMPORARY GOOSE EXCLUSION FENCE | 550.00 | L.F. | 1 | 550 | - |
| 239 | BMP-7.417 DEBRIS EXCLUSION FENCE | 300.00 | L.F. | 1 | 300 | - |
| 240 | BMP-7.418 CLEAN SAND FOR RESTORED AREA | 283.00 | C.Y. | 10 | 2,830 | - |

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NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION
DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN

PROJECT ID: CONISPH2B

CONTRACT PIN: 8502013SE0045C

BID SCHEDULE FORM

| COL 1 SEQ. NO. | COL 2 ITEM NUMBER AND DESCRIPTION | COL 3 ENGINEER'S ESTIMATE OF QUANTITY | COL 4 UNIT | COL 5 DIFFERENCE (IN FIGURES) | COL 6 EXCEEDED AMOUNT (IN FIGURES) | COL 7 DOLLARS | COL 8 C.T.S. |
|-------------------|---|--|---------------|-------------------------------------|--|------------------|-----------------|
| 241 | BMP-7.421 ROOT BARRIER | 1,356.00 | S.F. | 5 - | 6,780 - | | |
| 242 | BMP-7.502 CONSTRUCTION LIMIT FENCE | 85.00 | L.F. | 5 - | 425 - | | |
| 243 | BMP-7.504A SILT FENCE | 578.00 | L.F. | 5 - | 2,890 - | | |
| 244 | BMP-7.509-A STABILIZED CONSTRUCTION ENTRANCE | 2.00 | EACH | 1,500 - | 3,000 - | | |
| 245 | BMP-7.510 PORTABLE SEDIMENT TANK | 1.00 | EACH | 1,000 - | 1,000 - | | |
| 246 | BMP-7.516 TURBIDITY CURTAIN | 190.00 | L.F. | 10 - | 1,900 - | | |

11/12/2015 12:00 AM

NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION
 DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN

PROJECT ID: CONISPH2B

CONTRACT PIN: 8502013SE0045C

BID SCHEDULE FORM

| COL 1 SEQ. NO. | COL 2 ITEM NUMBER and DESCRIPTION | COL 3 ENGINEER'S ESTIMATE OF QUANTITY | COL 4 UNIT | COL 5 UNIT PRICE (IN FIGURES) DOLLARS | COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS | COL 7 GTS |
|-------------------|---|--|---------------|--|---|--------------|
| 247 | NYC-697.20000082 BRIDGE FLAG REPAIR PRICE BID SHALL BE FOR THE FIXED SUM OF \$ 30,000.00 | 1.00 | F.S. | 30,000 00 | 30,000 00 | 00 |
| 248 | UTL-6.01.1 GAS MAIN CROSSING SEWER UP TO 24" IN DIAMETER (S6.01) Unit price bid shall not be less than: \$ 1,040.00 | 11.00 | EACH | 1,040 - | 11,440 - | - |
| 249 | UTL-6.01.11 GAS MAIN CROSSING WATER MAIN 36" THRU 42" IN DIAMETER (S6.01) Unit price bid shall not be less than: \$ 685.00 | 2.00 | EACH | 685 - | 1,370 - | - |
| 250 | UTL-6.01.4A GAS MAIN CROSSING 4'-0"W X 2'-0"H FLAT TOP REINFORCED CONCRETE STORM SEWER (S6.01) Unit price bid shall not be less than: \$ 1,960.00 | 1.00 | EACH | 1,960 - | 1,960 - | - |
| 251 | UTL-6.01.4D GAS MAIN CROSSING 4'-0"W X 2'-6"H FLAT TOP REINFORCED CONCRETE STORM SEWER (S6.01) Unit price bid shall not be less than: \$ 2,120.00 | 1.00 | EACH | 2,120 - | 2,120 - | - |

11/12/2015 12:00 AM

NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION
 DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN

PROJECT ID: CONISPH2B
 CONTRACT PIN: 8502013SE0045C

BID SCHEDULE FORM

| COL 1 SEQ. NO. | COL 2 ITEM NUMBER AND DESCRIPTION | COL 3 ENGINEER'S ESTIMATE | COL 4 QUANTITY | COL 5 UNIT | COL 6 UNIT PRICE (FIGURES) | COL 7 EXTENDED AMOUNT (FIGURES) | COL 8 DOLLARS | COL 9 CENTS | COL 10 DOLLARS | COL 11 CENTS |
|-------------------|--|---------------------------------|-------------------|---------------|----------------------------------|---------------------------------------|------------------|----------------|-------------------|-----------------|
| 252 | UTL-6.01.6N GAS MAIN CROSSING 6'-0"W X 5'-0"H FLAT TOP REINFORCED CONCRETE STORM SEWER (\$6.01) Unit price bid shall not be less than: \$ 2,640.00 | | 1.00 | EACH | 2,640 | 2,640 | | | 2,640 | |
| 253 | UTL-6.01.7H GAS MAIN CROSSING 6'-6"W X 3'-0"H FLAT TOP REINFORCED CONCRETE STORM SEWER (\$6.01) Unit price bid shall not be less than: \$ 2,740.00 | | 2.00 | EACH | 2,740 | 5,480 | | | 5,480 | |
| 254 | UTL-6.01.7NN GAS MAIN CROSSING 7'-6"W X 3'-0"H FLAT TOP REINFORCED CONCRETE STORM SEWER (\$6.01) Unit price bid shall not be less than: \$ 2,740.00 | | 1.00 | EACH | 2,740 | 2,740 | | | 2,740 | |
| 255 | UTL-6.01.7V GAS MAIN CROSSING 7'-0"W X 5'-0"H FLAT TOP REINFORCED CONCRETE STORM SEWER (\$6.01) Unit price bid shall not be less than: \$ 2,740.00 | | 2.00 | EACH | 2,740 | 5,480 | | | 5,480 | |
| 256 | UTL-6.01.8 GAS SERVICES CROSSING TRENCHES AND/OR EXCAVATIONS (\$6.01) Unit price bid shall not be less than: \$ 465.00 | | 30.00 | EACH | 465 | 13,950 | | | 13,950 | |
| 257 | UTL-6.01.9 GAS MAIN CROSSING WATER MAIN UP TO 20" IN DIAMETER (\$6.01) Unit price bid shall not be less than: \$ 485.00 | | 16.00 | EACH | 741 | 11,861 | | 35 | 7,760 | 60 |

11/12/2015 12:00 AM

NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION
 DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN

PROJECT ID: CONISPH2B

CONTRACT PIN: 8502013SE0045C

BID SCHEDULE FORM

| COL 1 SEQ. NO. | COL 2 ITEM NUMBER and DESCRIPTION | COL 3 ENGINEER'S ESTIMATE OF QUANTITY | COL 4 UNIT | COL 5 UNIT PRICE (IN FIGURES) DOLLARS CENTS | COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS CENTS |
|-------------------|--|--|---------------|---|--|
| 258 | UTL-6.02 EXTRA EXCAVATION FOR THE INSTALLATION OF CATCH BASIN SEWER DRAIN PIPES WITH GAS INTERFERENCES (\$6.02) Unit price bid shall not be less than: \$ 715.00 | 10.00 | EACH | 715 - | 7,150 - |
| 259 | UTL-6.03 REMOVAL OF ABANDONED GAS FACILITIES. ALL SIZES. (\$6.03) Unit price bid shall not be less than: \$ 15.00 | 3,800.00 | L.F. | OM 1500 15 | OM 57,000.00 57,000.00 |
| 260 | UTL-6.03.1 REMOVAL OF ABANDONED GAS FACILITIES WITH POSSIBLE COAL TAR WRAP. ALL SIZES. (\$6.03) Unit price bid shall not be less than: \$ 25.00 | 400.00 | L.F. | 25 - | 10,000 - |
| 261 | UTL-6.04 ADJUST HARDWARE TO GRADE USING SPACER RINGS/ADAPTORS. (STREET REPAVING.) (\$6.04) Unit price bid shall not be less than: \$ 35.00 | 25.00 | EACH | 35 - | 875 - |
| 262 | UTL-6.05 ADJUST HARDWARE TO GRADE BY RESETTING. (ROAD RECONSTRUCTION.) (\$6.05) Unit price bid shall not be less than: \$ 65.00 | 25.00 | EACH | 65 - | 1,625 - |
| 263 | UTL-6.06 SPECIAL CARE EXCAVATION AND BACKFILLING (\$6.06) Unit price bid shall not be less than: \$ 180.00 | 2,000.00 | C.Y. | 180 - | 360,000 - |

11/12/2015 12:00 AM

NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION
 DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN

PROJECT ID: CONISPH2B
 CONTRACT PIN: 8502013SE0045C

BID SCHEDULE FORM

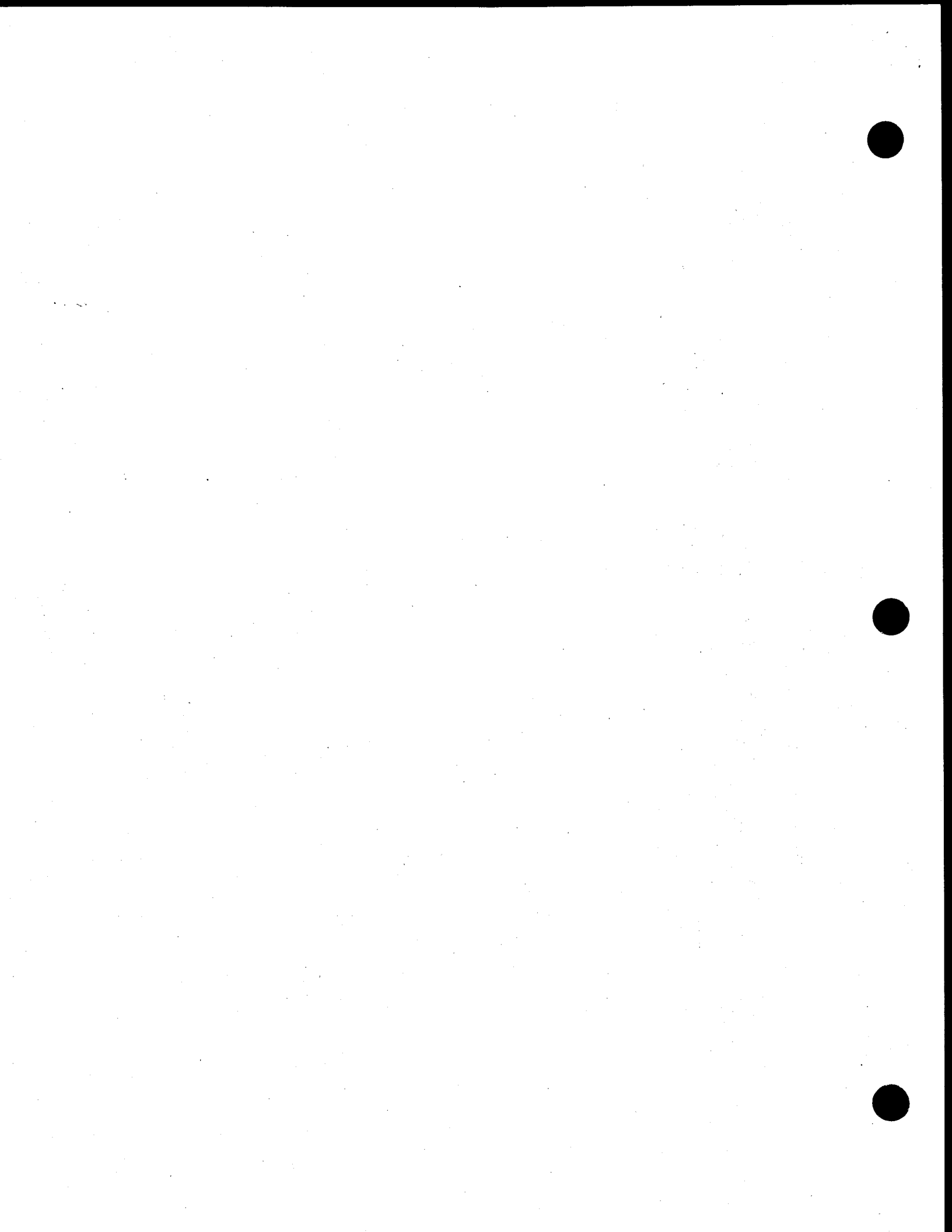
| COL 1 SEQ. NO. | COL 2 ITEM NUMBER AND DESCRIPTION | COL 3 ENGINEER'S ESTIMATE OF QUANTITY UNIT | COL 4 UNIT PRICE (IN FIGURES) DOLLARS U.S. | COL 5 EXTENDED AMOUNT (IN FIGURES) DOLLARS U.S. |
|-------------------|--|--|---|--|
| 264 | UTL-6.07 TEST PITS FOR GAS FACILITIES (S6.07) Unit price bid shall not be less than: \$ 100.00 | 100.00 C.Y. | 100 | 10,000 |
| 265 | UTL-GCS-2WS GAS INTERFERENCES AND ACCOMMODATIONS PRICE BID SHALL BE FOR THE FIXED SUM OF \$ 100,000.00 | 1.00 F.S. | 100,000 00 | 100,000 00 |

SUB-TOTAL: \$ 112,836,281.95

| | | | | |
|-----|---|--------------|--------------|--------------|
| 266 | 6.39 A MOBILIZATION BID PRICE OF MOBILIZATION SHALL NOT EXCEED 4% OF THE ABOVE SUB-TOTAL PRICE. | 1.00 L.S. | 1,608,162.44 | 1,608,162.44 |
|-----|---|--------------|--------------|--------------|

TOTAL BID PRICE: \$ 114,444,444.44
~~113,446.44~~
~~114,444.44~~
DMC

PLEASE BE SURE A LEGIBLE BID IS ENTERED FOR EACH ITEM.
 THE BIDDER SHALL INSERT THE TOTAL BID PRICE IN
 THE BID FORM ON PAGE C-4 OF THIS BID BOOKLET.



BID FORM

PROJECT ID: CONISPH2B

TOTAL BID PRICE: In the space provided below, the Bidder shall indicate its Total Bid Price in figures. Such Total Bid Price is set forth on the final page of the Bid Schedule.

TOTAL BID PRICE:
(a/k/a BID PROPOSAL)

44,443,446.44
\$ ~~44,444,444.44~~ 44
BB 11/20/15

BIDDER'S SIGNATURE AND AFFIDAVIT

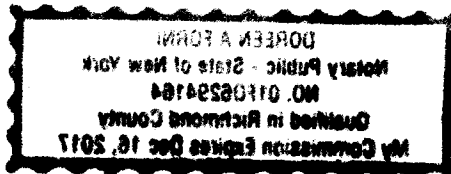
Bidder: Bedford Corp Construction Inc.

By: [Signature]
(Signature of Partner or corporate officer)

Attest:
(Corporate Seal)

Secretary of Corporate Bidder

Affidavit on the following page should be subscribed
and sworn to before a Notary Public



BID FORM (TO BE NOTARIZED)

AFFIDAVIT WHERE BIDDER IS AN INDIVIDUAL

STATE OF NEW YORK, COUNTY OF _____ ss: _____ being duly sworn says:
I am the person described in and who executed the foregoing bid, and the several matters therein stated are in all respects true.

(Signature of the person who signed the Bid)

Subscribed and sworn to before me this _____ day of _____

Notary Public

AFFIDAVIT WHERE BIDDER IS A PARTNERSHIP

STATE OF NEW YORK, COUNTY OF _____ ss: _____ being duly sworn says:
I am a member of _____ the firm described in and which executed the foregoing bid. I subscribed the name of the firm thereto on behalf of the firm, and the several matters therein stated are in all respects true.

(Signature of Partner who signed the Bid)

Subscribed and sworn to before me this _____ day of _____

Notary Public

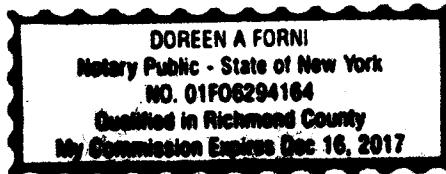
AFFIDAVIT WHERE BIDDER IS A CORPORATION

STATE OF NEW YORK, COUNTY OF Richmond ss: _____ being duly sworn says:
I am the Vice President of the above named corporation whose name is subscribed to and which executed the foregoing bid. I reside at 102 BERGAN DR, LINCROFT, N.J. 07201
I have knowledge of the several matters therein stated, and they are in all respects true.

M. A. Fornì, V.P.
(Signature of Partner who signed the Bid)

Subscribed and sworn to before me this 17th day of November, 2015

Doreen A. Fornì
Notary Public



BID FORM

PROJECT ID: CONISPH2B

TOTAL BID PRICE: In the space provided below, the Bidder shall indicate its Total Bid Price in figures. Such Total Bid Price is set forth on the final page of the Bid Schedule.

TOTAL BID PRICE:
(a/k/a BID PROPOSAL)

\$ 44,444,444.⁴⁴
BB 11/20/15

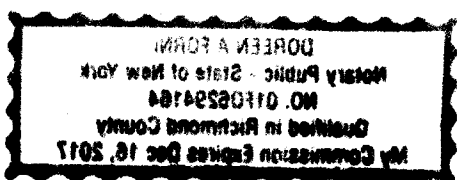
BIDDER'S SIGNATURE AND AFFIDAVIT

Bidder: Bedford Corp Construction Inc.

By: [Signature]
(Signature of Partner or corporate officer)

Attest: _____
(Corporate Seal) Secretary of Corporate Bidder

Affidavit on the following page should be subscribed and sworn to before a Notary Public



BID FORM (TO BE NOTARIZED)

AFFIDAVIT WHERE BIDDER IS AN INDIVIDUAL

STATE OF NEW YORK, COUNTY OF _____ ss: _____ being duly sworn says:
I am the person described in and who executed the foregoing bid, and the several matters therein stated are in all respects true.

(Signature of the person who signed the Bid)

Subscribed and sworn to before me this _____ day of _____

Notary Public

AFFIDAVIT WHERE BIDDER IS A PARTNERSHIP

STATE OF NEW YORK, COUNTY OF _____ ss: _____ being duly sworn says:
I am a member of _____ the firm described in and which executed the foregoing bid. I subscribed the name of the firm thereto on behalf of the firm, and the several matters therein stated are in all respects true.

(Signature of Partner who signed the Bid)

Subscribed and sworn to before me this _____ day of _____

Notary Public

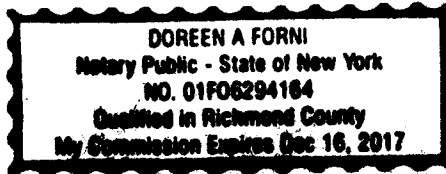
AFFIDAVIT WHERE BIDDER IS A CORPORATION

STATE OF NEW YORK, COUNTY OF Richmond ss: _____ being duly sworn says:
I am the Vice President of the above named corporation whose name is subscribed to and which executed the foregoing bid. I reside at 102 Beaman Dr, Lincroft, N.J. 07701
I have knowledge of the several matters therein stated, and they are in all respects true.

M. H. [Signature]
(Signature of Partner who signed the Bid)

Subscribed and sworn to before me this 17th day of November, 2015

Doreen A. Fornì
Notary Public



**BID BOND 1
FORM OF BID BOND**

KNOW ALL MEN BY THESE PRESENTS. That we, _____

Bedford Carp Construction, Inc.

77 Bloomfield Avenue, Staten Island, NY 10314

hereinafter referred to as the "Principal", and _____

Western Surety Company

P. O. Box 5077, Sioux Falls, SD 57117-5077

hereinafter referred to as the "Surety" are held and firmly bound to THE CITY OF NEW YORK, hereinafter referred to as the "CITY", or to its successors and assigns in the penal sum of

Ten Percent of Amount Bid

(\$ 10%), Dollars lawful money of the United States, for the payment of which said sum of money well and truly to be made, we, and each of us, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

Whereas, the Principal is about to submit (or has submitted) to the City the accompanying proposal, hereby made a part hereof, to enter into a contract in writing for Project ID: CONISPH2B; Construction of Storm and Sanitary Sewers and Trunk Water Mains and Appurtenances in Coney Island Area Phase 2B Including Water Main Work

NOW, THEREFORE, the conditions of this obligation are such that if the Principal shall not withdraw said Proposal without the consent of the City for a period of forty-five (45) days after the opening of bids and in the event of acceptance of the Principal's Proposal by the City, if the Principal shall:

- (a) Within ten (10) days after notification by the City, execute in quadruplicate and deliver to the City all the executed counterparts of the Contract in the form set forth in the Contract Documents, in accordance with the proposal as accepted, and
- (b) Furnish a performance bond and separate payment bond, as may be required by the City, for the faithful performance and proper fulfillment of such Contract, which bonds shall be satisfactory in all respects to the City and shall be executed by good and sufficient sureties, and
- (c) In all respects perform the agreement created by the acceptance of said Proposal as provided in the Information for Bidders, bound herewith and made a part hereof, or if the City shall reject the aforesaid Proposal, then this obligation shall be null and void; otherwise to remain in full force and effect.



BID BOND 2

In the event that the Proposal of the Principal shall be accepted and the Contract be awarded to him the Surety hereunder agrees subject only to the payment by the Principal of the premium therefore, if requested by the City, to write the aforementioned performance and payment bonds in the form set forth in the Contract Documents.

It is expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall in no event exceed the penal amount of this obligation as herein stated.

There shall be no liability under this bond if, in the event of the acceptance of the Principal's Proposal by the City, either a performance bond or payment bond, or both, shall not be required by the City on or before the 30th day after the date on which the City signs the Contract.

The surety, for the value received, hereby stipulates and agrees that the obligations of the Surety and its bond shall in no way be impaired or affected by any postponements of the date upon which the City will receive or open bids, or by any extensions of time within which the City may accept the Principal's Proposal, or by any waiver by the City of any of the requirements of the Information for Bidders, and the Surety hereby waives notice of any such postponements, extensions, or waivers.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers the 17th day of November, 2015.

(Seal)

Bedford Carp Construction, Inc. (L.S.)

Principal

By:

M. Hajisafari
Mohammad Hajisafari, J.P.

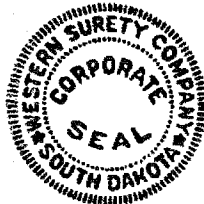
(Seal)

Western Surety Company

Surety

By:

Dennis M. O'Brien
Dennis M. O'Brien Attorney-in-Fact

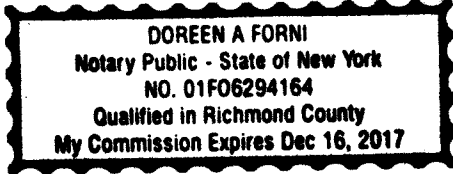




BID BOND 3

ACKNOWLEDGEMENT OF PRINCIPAL, IF A CORPORATION

State of New York County of Richmond ss:
On this 17th day of November, 2015, before me personally came Muhammad Hajisatani to me known, who, being by me duly sworn, did depose and say that he resides at 102 Bernard Dr, Lincroft N.J. 07721 that he is the Vice President of Baldors Corp Construction Inc. the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that one of the seals affixed to said instrument is such seal; that it was so affixed by order of the directors of said corporation, and that he signed his name thereto by like order.



Doreen A. Forni
Notary Public

ACKNOWLEDGEMENT OF PRINCIPAL, IF A PARTNERSHIP

State of _____ County of _____ ss:
On this _____ day of _____, _____, before me personally appeared _____ to me known and known to me to be one of the members of the firm of _____ described in and who executed the foregoing instrument, and he acknowledged to me that he executed the same as and for the act and deed of said firm.

Notary Public

ACKNOWLEDGEMENT OF PRINCIPAL, IF AN INDIVIDUAL

State of _____ County of _____ ss:
On this _____ day of _____, _____, before me personally appeared _____ to me known and known to me to be the person described in and who executed the foregoing instrument and acknowledged that he executed the same.

Notary Public

AFFIX ACKNOWLEDGEMENTS AND JUSTIFICATION OF SURETIES

DOREEN A CORN
Notary Public - State of New York
NO. 01106284184
Qualified in Richmond County
My Commission Expires Dec 18, 2013

Individual Acknowledgment

State of _____

County of _____

On this _____ day of _____, 20____, before me personally came _____ to me known, and known to me to be the individual in and who executed the foregoing instrument, and acknowledged to me that he/she executed the same.

My commission expires _____
Notary Public

Corporation Acknowledgment

State of _____

County of _____

On the _____ day of _____, _____ before me personally came _____ to me known; who being by me duly sworn, did depose and say that he/she/they reside(s) in _____ that he/she/they is (are) the _____ of the _____, the corporation described in and which executed the above instrument; that he/she/they know(s) the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by authority of the board of directors of said corporation, and that he/she/they signed his/her/their name(s) thereto by like authority.

My commission expires _____
Notary Public

Surety Acknowledgment

State of New York

County of Westchester

On the 17th day of **November, 2015** personally came Dennis M. O'Brien to me known , who being by me duly sworn did depose and say that he/she is an Attorney-in-Fact of **Western Surety Company** in and which executed the above Instrument know(s) the corporate seal of said corporation; that the seal affixed to the within instrument is such corporate seal, and that he/she/they signed the said instrument and affixed the said seal as Attorney-in-fact by authority of the Board of Directors of said corporation and by authority of this office under the standing resolution thereof.

TINA CASTIELLO
NOTARY PUBLIC-STATE OF NEW YORK
No. 01CA6191205

My commission expires _____
Qualified in Westchester County Tina Castello
My Commission Expires August 04, 2014 Notary Public



Western Surety Company

POWER OF ATTORNEY APPOINTING INDIVIDUAL ATTORNEY-IN-FACT

Know All Men By These Presents, That WESTERN SURETY COMPANY, a South Dakota corporation, is a duly organized and existing corporation having its principal office in the City of Sioux Falls, and State of South Dakota, and that it does by virtue of the signature and seal herein affixed hereby make, constitute and appoint

William D Haas, Dennis M O Brien, Benedict J Tockarszewsky, Individually

of White Plains, NY, its true and lawful Attorney(s)-in-Fact with full power and authority hereby conferred to sign, seal and execute for and on its behalf bonds, undertakings and other obligatory instruments of similar nature

- In Unlimited Amounts -

and to bind it thereby as fully and to the same extent as if such instruments were signed by a duly authorized officer of the corporation and all the acts of said Attorney, pursuant to the authority hereby given, are hereby ratified and confirmed.

This Power of Attorney is made and executed pursuant to and by authority of the By-Law printed on the reverse hereof, duly adopted, as indicated, by the shareholders of the corporation.

In Witness Whereof, WESTERN SURETY COMPANY has caused these presents to be signed by its Vice President and its corporate seal to be hereto affixed on this 30th day of June, 2015.



WESTERN SURETY COMPANY

Paul T. Bruflat

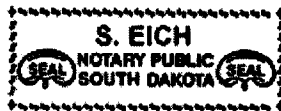
Paul T. Bruflat, Vice President

State of South Dakota }
County of Minnehaha } ss

On this 30th day of June, 2015, before me personally came Paul T. Bruflat, to me known, who, being by me duly sworn, did depose and say: that he resides in the City of Sioux Falls, State of South Dakota; that he is the Vice President of WESTERN SURETY COMPANY described in and which executed the above instrument; that he knows the seal of said corporation; that the seal affixed to the said instrument is such corporate seal; that it was so affixed pursuant to authority given by the Board of Directors of said corporation and that he signed his name thereto pursuant to like authority, and acknowledges same to be the act and deed of said corporation.

My commission expires

February 12, 2021



S. Eich

S. Eich, Notary Public

CERTIFICATE

I, L. Nelson, Assistant Secretary of WESTERN SURETY COMPANY do hereby certify that the Power of Attorney hereinabove set forth is still in force, and further certify that the By-Law of the corporation printed on the reverse hereof is still in force. In testimony whereof I have hereunto subscribed my name and affixed the seal of the said corporation this 17th day of November, 2015.



WESTERN SURETY COMPANY

L. Nelson

L. Nelson, Assistant Secretary

Authorizing By-Law

ADOPTED BY THE SHAREHOLDERS OF WESTERN SURETY COMPANY

This Power of Attorney is made and executed pursuant to and by authority of the following By-Law duly adopted by the shareholders of the Company.

Section 7. All bonds, policies, undertakings, Powers of Attorney, or other obligations of the corporation shall be executed in the corporate name of the Company by the President, Secretary, and Assistant Secretary, Treasurer, or any Vice President, or by such other officers as the Board of Directors may authorize. The President, any Vice President, Secretary, any Assistant Secretary, or the Treasurer may appoint Attorneys in Fact or agents who shall have authority to issue bonds, policies, or undertakings in the name of the Company. The corporate seal is not necessary for the validity of any bonds, policies, undertakings, Powers of Attorney or other obligations of the corporation. The signature of any such officer and the corporate seal may be printed by facsimile.

WESTERN SURETY COMPANY
Sioux Falls, South Dakota
Statement of Net Admitted Assets and Liabilities
December 31, 2014

ASSETS

| | |
|--|------------------------|
| Bonds | \$1,824,951,414 |
| Stocks | 23,975,582 |
| Cash, cash equivalents, and short-term investments | 51,536,164 |
| Investment income due and accrued | 22,267,675 |
| Premiums and considerations | 41,696,249 |
| Amounts recoverable from reinsurers | (11,221,508) |
| Federal and foreign income taxes recoverable | 7,401,709 |
| Net deferred tax asset | 20,261,713 |
| Receivable from parent, subsidiaries, and affiliates | 17,380,167 |
| Other assets | 3,799 |
| Total Assets | <u>\$1,998,252,964</u> |

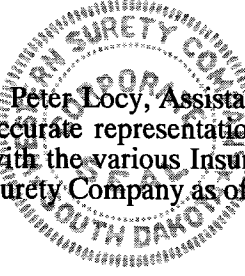
LIABILITIES AND SURPLUS

| | |
|---|----------------------|
| Losses | \$302,997,505 |
| Reinsurance payable on paid losses and loss adjustment expenses | (15,267,712) |
| Loss adjustment expense | 64,134,995 |
| Contingent and other commissions payable | 6,099,306 |
| Unearned premiums | 259,011,845 |
| Advance premiums | 5,321,610 |
| Payable to parent, subsidiaries and affiliates | 107,843 |
| Other liabilities | 7,821,458 |
| Total Liabilities | <u>\$630,226,850</u> |

Surplus Account:

| | | |
|---------------------------------------|---------------|------------------------|
| Capital paid up | \$4,000,000 | |
| Gross paid in and contributed surplus | 280,071,837 | |
| Unassigned funds | 1,083,954,277 | |
| Surplus as regards policyholders | | <u>\$1,368,026,114</u> |
| Total Liabilities and Capital | | <u>\$1,998,252,964</u> |

I, Peter Locy, Assistant Vice President of Western Surety Company hereby certify that the above is an accurate representation of the financial statement of the Company dated December 31, 2014, as filed with the various Insurance Departments and is a true and correct statement of the condition of Western Surety Company as of that date.

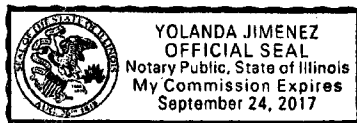


Western Surety Company

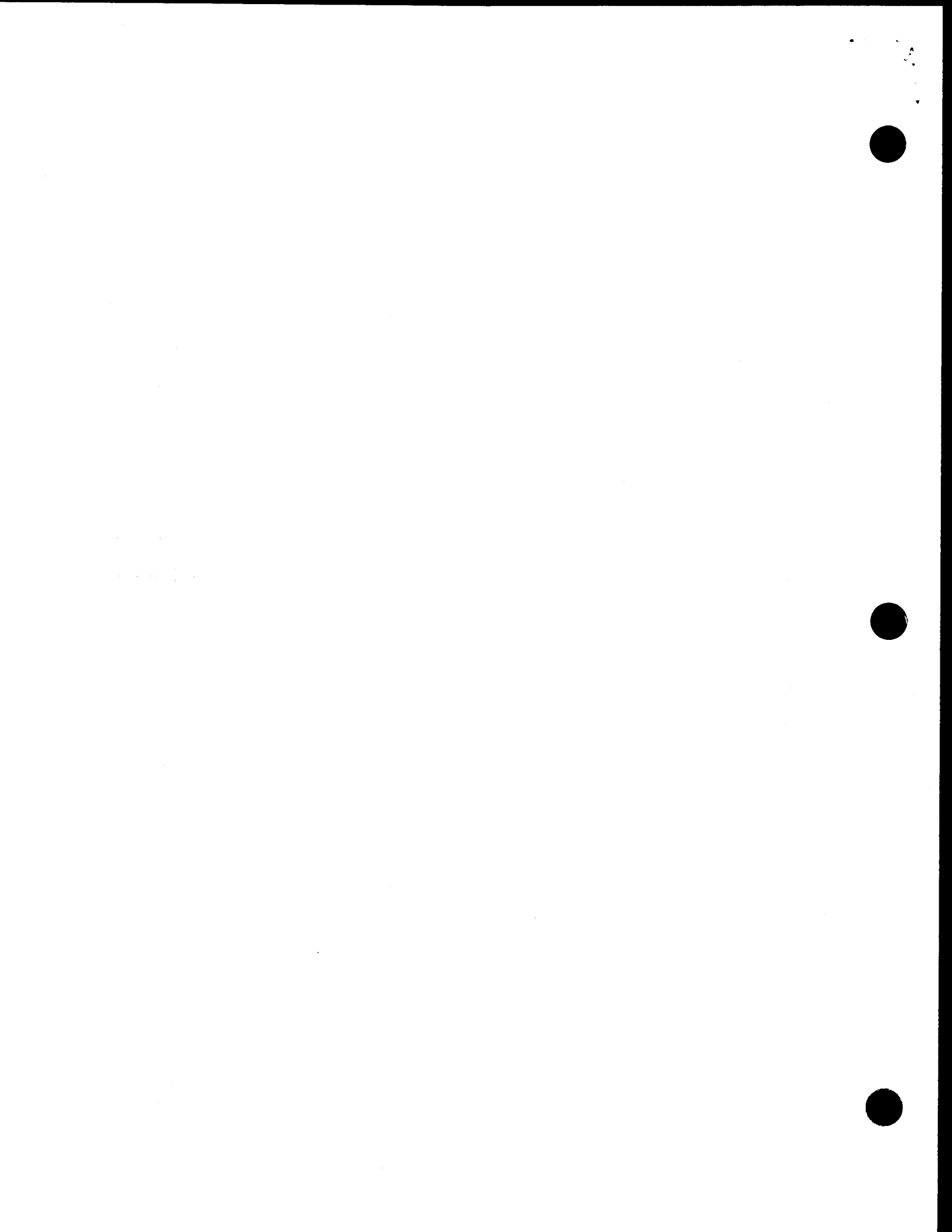
By Peter Locy
Assistant Vice President

Subscribed and sworn to me this 19th day of March, 2015.

My commission expires:



Yolanda Jimenez
Notary Public



M/WBE PROGRAM

M/WBE UTILIZATION PLAN

M/WBE Program Requirements: The requirements for the M/WBE Program are set forth on the following pages of this Bid Booklet, in the section entitled “Notice to All Prospective Contractors”.

Schedule B: M/WBE Utilization Plan: Schedule B: M/WBE Utilization Plan for this Contract is set forth in this Bid Booklet on the pages following the section entitled “Notice to All Prospective Contractors”. The M/WBE Utilization Plan (Part I) indicates whether Participation Goals have been established for this Contract. If Participation Goals have been established for this Contract, the bidder must submit an M/WBE Utilization Plan (Part II) with its bid.

Waiver: The bidder may seek a full or partial pre-award waiver of the Participation Goals in accordance with the “Notice to All Prospective Contractors” (See Part A, Section 10). The bidder’s request for a waiver must be submitted at least seven (7) calendar days prior to the bid date. Waiver requests submitted after the deadline will not be considered. The form for requesting a waiver of the Participation Goals is set forth in the M/WBE Utilization Plan (Part III).

Rejection of the Bid: The bidder must complete Schedule B: M/WBE Utilization Plan (Part II) set forth in this Bid Booklet on the pages following the section entitled “Notice to All Prospective Contractors”. A Schedule B submitted by the bidder which does not include the Vendor Certification and Required Affirmations (See Section V of Part II) will be deemed to be non-responsive, unless a full waiver of the Participation Goals is granted (Schedule B, Part III). In the event that the City determines that the bidder has submitted a Schedule B where the Vendor Certification and Required Affirmations are completed but other aspects of the Schedule B are not complete, or contain a copy or computation error that is at odds with the Vendor Certification and Required Affirmations, the bidder will be notified by the Agency and will be given four (4) calendar days from receipt of notification to cure the specified deficiencies and return a completed Schedule B to the Agency. Failure to do so will result in a determination that the Bid is non-responsive. Receipt of notification is defined as the date notice is emailed or faxed (if the bidder has provided an email address or fax number), or no later than five (5) calendar days from the date of mailing or upon delivery, if delivered.

Impact on LBE Requirements: If Participation Goals have been established for the participation of M/WBEs, the contractor is not required to comply with the Locally Based Enterprise Program (“LBE”). The LBE Program is set forth in Article 67 of the Contract.

NOTICE TO ALL PROSPECTIVE CONTRACTORS

**PARTICIPATION BY MINORITY-OWNED AND WOMEN-OWNED BUSINESS
ENTERPRISES IN CITY PROCUREMENT**

ARTICLE I. M/WBE PROGRAM

Local Law No. 129 of 2005 added and Local Law 1 of 2013 amended Section 6-129 of the Administrative Code of the City of New York (hereinafter "Section 6-129"). Section 6-129 establishes the program for participation in City procurement ("M/WBE Program") by minority- owned business enterprises ("MBEs") and women-owned business enterprises ("WBEs"), certified in accordance with Section 1304 of the New York City Charter. As stated in Section 6-129, the intent of the program is to address the impact of discrimination on the City's procurement process, and to promote the public interest in avoiding fraud and favoritism in the procurement process, increasing competition for City business, and lowering contract costs. The contract provisions contained herein are pursuant to Section 6-129, and the rules of the Department of Small Business Services ("DSBS") promulgated thereunder.

If this Contract is subject to the M/WBE Program established by Section 6-129, the specific requirements of MBE and/or WBE participation for this Contract are set forth in Schedule B of the Contract (entitled the "M/WBE Utilization Plan"), and are detailed below. The Contractor must comply with all applicable MBE and WBE requirements for this Contract.

All provisions of Section 6-129 are hereby incorporated in the Contract by reference and all terms used herein that are not defined herein shall have the meanings given such terms in Section 6-129. Article I, Part A, below, sets forth provisions related to the participation goals for construction, standard and professional services contracts. Article I, Part B, below, sets forth miscellaneous provisions related to the M/WBE Program.

PART A

**PARTICIPATION GOALS FOR CONSTRUCTION, STANDARD
AND PROFESSIONAL SERVICES CONTRACTS OR TASK ORDERS**

1. The **MBE and/or WBE Participation Goals** established for this Contract or Task Orders issued pursuant to this Contract, ("**Participation Goals**"), as applicable, are set forth on Schedule B, Part I to this Contract (see Page 1, line 1 Total Participation Goals) or will be set forth on Schedule B, Part I to Task Orders issued pursuant to this Contract, as applicable.

The **Participation Goals** represent a percentage of the total dollar value of the Contract or Task Order, as applicable, that may be achieved by awarding subcontracts to firms certified with New York City Department of Small Business Services as MBEs and/or WBEs, and/or by crediting the participation of prime contractors and/or qualified joint ventures as provided in Section 3 below, unless the goals have been waived or modified by Agency in accordance with Section 6-129 and Part A, Sections 10 and 11 below, respectively.

2. If **Participation Goals** have been established for this Contract or Task Orders issued pursuant to this Contract, Contractor agrees or shall agree as a material term of the Contract that Contractor shall be subject to the **Participation Goals**, unless the goals are waived or modified by Agency in accordance with Section 6-129 and Part A, Sections 10 and 11 below, respectively.

3. If **Participation Goals** have been established for this Contract or Task Order issued pursuant to this Contract, a Contractor that is an MBE and/or WBE shall be permitted to count its own participation toward fulfillment of the relevant **Participation Goal**, provided that in accordance with Section 6-129 the value of Contractor's participation shall be determined by subtracting from the total value of the Contract or Task Order, as applicable, any amounts that the Contractor pays to direct subcontractors (as defined in Section 6-129(c)(13)), and provided further that a Contractor that is certified as both an MBE and a WBE may count its own participation either toward the goal for MBEs or the goal for WBEs, but not both.

A Contractor that is a qualified joint venture (as defined in Section 6-129(c)(30)) shall be permitted to count a percentage of its own participation toward fulfillment of the relevant **Participation Goal**. In accordance with Section 6-129, the value of Contractor's participation shall be determined by subtracting from the total value of the Contract or Task Order, as applicable, any amounts that Contractor pays to direct subcontractors, and then multiplying the remainder by the percentage to be applied to total profit to determine the amount to which an MBE or WBE is entitled pursuant to the joint venture agreement, provided that where a participant in a joint venture is certified as both an MBE and a WBE, such amount shall be counted either toward the goal for MBEs or the goal for WBEs, but not both.

4. A. If **Participation Goals** have been established for this Contract, a prospective contractor shall be required to submit with its bid or proposal, as applicable, a completed Schedule B, M/WBE Utilization Plan, Part II (see Pages 2-4) indicating: (a) whether the contractor is an MBE or WBE, or qualified joint venture; (b) the percentage of work it intends to award to direct subcontractors; and (c) in cases where the contractor intends to award direct subcontracts, a description of the type and dollar value of work designated for participation by MBEs and/or WBEs, and the time frames in which such work is scheduled to begin and end. In the event that this M/WBE Utilization Plan indicates that the bidder or proposer, as applicable, does not intend to meet the **Participation Goals**, the bid or proposal, as applicable, shall be deemed non-responsive, unless Agency has granted the bidder or proposer, as applicable, a pre-award waiver of the Participation Goals in accordance with Section 6-129 and Part A, Section 10 below.

B. (i) If this Contract is for a master services agreement or other requirements type contract that will result in the issuance of Task Orders that will be individually registered ("Master Services Agreement") and is subject to M/WBE **Participation Goals**, a prospective contractor shall be required to submit with its bid or proposal, as applicable, a completed Schedule B, M/WBE Participation Requirements for Master Services Agreements That Will Require Individually Registered Task Orders, Part II (page 2) indicating the prospective contractor's certification and required affirmations to make all reasonable good faith efforts to meet participation goals established on each individual Task Order issued pursuant to this Contract, or if a partial waiver is obtained or such goals are modified by the Agency, to meet the modified **Participation Goals** by soliciting and obtaining the participation of certified MBE and/or WBE firms. In the event that the Schedule B indicates that the bidder or proposer, as applicable, does not intend to meet the **Participation Goals** that may be established on Task Orders issued pursuant to this Contract, the bid or proposal, as applicable, shall be deemed nonresponsive.

(ii) **Participation Goals** on a Master Services Agreement will be established for individual Task Orders issued after the Master Services Agreement is awarded. If **Participation Goals** have been established on a Task Order, a contractor shall be required to submit a Schedule B – M/WBE Utilization Plan For Independently Registered Task Orders That Are Issued Pursuant to Master Services Agreements, Part II (see Pages 2-4) indicating: (a) whether the contractor is an MBE or WBE, or qualified joint venture; (b) the percentage of work it intends to award to direct subcontractors; and (c) in cases where the contractor intends to award direct subcontracts, a description of the type and dollar value of work designated for participation by MBEs and/or WBEs, and the time frames in which such work is scheduled to begin and end. The contractor must engage in good faith efforts to meet the **Participation Goals** as established for the Task Order unless Agency has granted the contractor a pre-award waiver of the Participation Goals in accordance with Section 6-129 and Part A, Section 10 below.

C. THE BIDDER/PROPOSER MUST COMPLETE THE SCHEDULE B INCLUDED HEREIN (SCHEDULE B, PART II). A SCHEDULE B SUBMITTED BY THE BIDDER/PROPOSER WHICH DOES NOT INCLUDE THE VENDOR CERTIFICATION AND REQUIRED AFFIRMATIONS (SEE SECTION V OF PART II) WILL BE DEEMED TO BE NON-RESPONSIVE, UNLESS A FULL WAIVER OF THE PARTICIPATION GOALS IS GRANTED (SCHEDULE B, PART III). IN THE EVENT THAT THE CITY DETERMINES THAT THE BIDDER/PROPOSER HAS SUBMITTED A SCHEDULE B WHERE THE VENDOR CERTIFICATION AND REQUIRED AFFIRMATIONS ARE COMPLETED BUT OTHER ASPECTS OF THE SCHEDULE B ARE NOT COMPLETE, OR CONTAIN A COPY OR COMPUTATION ERROR THAT IS AT ODDS WITH THE VENDOR CERTIFICATION AND AFFIRMATIONS, THE BIDDER/PROPOSER WILL BE NOTIFIED BY THE AGENCY AND WILL BE GIVEN FOUR (4) CALENDAR DAYS FROM RECEIPT OF NOTIFICATION TO CURE THE SPECIFIED DEFICIENCIES AND RETURN A COMPLETED SCHEDULE B TO THE AGENCY. FAILURE TO DO _

SO WILL RESULT IN A DETERMINATION THAT THE BID/PROPOSAL IS NON-RESPONSIVE. RECEIPT OF NOTIFICATION IS DEFINED AS THE DATE NOTICE IS E-MAILED OR FAXED (IF THE BIDDER/PROPOSER HAS PROVIDED AN E-MAIL ADDRESS OR FAX NUMBER), OR NO LATER THAN FIVE (5) CALENDAR DAYS FROM THE DATE OF MAILING OR UPON DELIVERY, IF DELIVERED.

5. Where an M/WBE Utilization Plan has been submitted, the Contractor shall, within 30 days of issuance by Agency of a notice to proceed, submit a list of proposed persons or entities to which it intends to award subcontracts within the subsequent 12 months. In the case of multiyear contracts, such list shall also be submitted every year thereafter. The Agency may also require the Contractor to report periodically about the contracts awarded by its direct subcontractors to indirect subcontractors (as defined in Section 6-129(c)(22)). **PLEASE NOTE: If this Contract is a public works project subject to GML §101(5) (i.e., a contract valued at or below \$3M for projects in New York City) or if the Contract is subject to a project labor agreement in accordance with Labor Law §222, and the bidder is required to identify at the time of bid submission its intended subcontractors for the Wicks trades (plumbing and gas fitting; steam heating, hot water heating, ventilating and air conditioning (HVAC); and electric wiring), the Contractor must identify all those to which it intends to award construction subcontracts for any portion of the Wicks trade work at the time of bid submission, regardless of what point in the life of the contract such subcontracts will occur. In identifying intended subcontractors in the bid submission, bidders may satisfy any Participation Goals established for this Contract by proposing one or more subcontractors that are MBEs and/or WBEs for any portion of the Wicks trade work. In the event that the Contractor's selection of a subcontractor is disapproved, the Contractor shall have a reasonable time to propose alternate subcontractors.**

6. MBE and WBE firms must be certified by DSBS in order for the Contractor to credit such firms' participation toward the attainment of the **Participation Goals**. Such certification must occur prior to the firms' commencement of work. A list of MBE and WBE firms may be obtained from the DSBS website at www.nyc.gov/buycertified, by emailing DSBS at buyer@sbs.nyc.gov, by calling (212) 513-6356, or by visiting or writing DSBS at 110 William St., New York, New York, 10038, 7th floor. Eligible firms that have not yet been certified may contact DSBS in order to seek certification by visiting www.nyc.gov/getcertified, emailing MWBE@sbs.nyc.gov, or calling the DSBS certification helpline at (212) 513-6311. A firm that is certified as both an MBE and a WBE may be counted either toward the goal for MBEs or the goal for WBEs, but not both. No credit shall be given for participation by a graduate MBE or graduate WBE, as defined in Section 6-129(c)(20).

7. Where an M/WBE Utilization Plan has been submitted, the Contractor shall, with each voucher for payment, and/or periodically as Agency may require, submit statements, certified under penalty of perjury, which shall include, but not be limited to, the total amount the Contractor paid to its direct subcontractors, and, where applicable pursuant to Section 6-129(j), the total amount direct subcontractors paid to indirect subcontractors; the names, addresses and contact numbers of each MBE or WBE hired as a subcontractor by the Contractor, and, where applicable, hired by any of the Contractor's direct subcontractors; and the dates and amounts paid to each MBE or WBE. The Contractor shall also submit, along with its voucher for final payment: the total amount it paid to subcontractors, and, where applicable pursuant to Section 6-129(j), the total amount its direct subcontractors paid directly to their indirect subcontractors; and a final list, certified under penalty of perjury, which shall include the name, address and contact information of each subcontractor that is an MBE or WBE, the work performed by, and the dates and amounts paid to each.

8. If payments made to, or work performed by, MBEs or WBEs are less than the amount specified in the Contractor's M/WBE Utilization Plan, Agency shall take appropriate action, in accordance with Section 6-129 and Article II below, unless the Contractor has obtained a modification of its M/WBE Utilization Plan in accordance with Section 6-129 and Part A, Section 11 below.

9. Where an M/WBE Utilization Plan has been submitted, and the Contractor requests a change order the value of which exceeds the greater of 10 percent of the Contract or Task Order, as applicable, or \$500,000, Agency shall review the scope of work for the Contract or Task Order, as applicable, and the scale and types of work involved in the change order, and determine whether the **Participation Goals** should be modified.

10. Pre-award waiver of the **Participation Goals**. (a) A bidder or proposer, or contractor with respect to a Task Order, may seek a pre-award full or partial waiver of the **Participation Goals** in accordance with Section 6-129, which requests that Agency change one or more **Participation Goals** on the grounds that the **Participation Goals** are unreasonable in light of the availability of certified firms to perform the services required, or by demonstrating that it has legitimate business reasons for proposing a lower level of subcontracting in its M/WBE Utilization Plan.

(b) To apply for a full or partial waiver of the **Participation Goals**, a bidder, proposer, or contractor, as applicable, must complete Part III (Page 5) of Schedule B and submit such request no later than seven (7) calendar days prior to the date and time the bids, proposals, or Task Orders are due, in writing to the Agency by email at poped@ddc.nyc.gov or via facsimile at (718) 391-1886. Bidders, proposers, or contractors, as applicable, who have submitted requests will receive an Agency response by no later than two (2) calendar days prior to the due date for bids, proposals, or Task Orders; provided, however, that if that date would fall on a weekend or holiday, an Agency response will be provided by close-of-business on the business day before such weekend or holiday date.

(c) If the Agency determines that the **Participation Goals** are unreasonable in light of the availability of certified firms to perform the services required, it shall revise the solicitation and extend the deadline for bids and proposals, or revise the Task Order, as applicable.

(d) Agency may grant a full or partial waiver of the **Participation Goals** to a bidder, proposer or contractor, as applicable, who demonstrates—before submission of the bid, proposal or Task Order, as applicable—that it has legitimate business reasons for proposing the level of subcontracting in its M/WBE Utilization Plan. In making its determination, Agency shall consider factors that shall include, but not be limited to, whether the bidder, proposer or contractor, as applicable, has the capacity and the bona fide intention to perform the Contract without any subcontracting, or to perform the Contract without awarding the amount of subcontracts represented by the **Participation Goals**. In making such determination, Agency may consider whether the M/WBE Utilization Plan is consistent with past subcontracting practices of the bidder, proposer or contractor, as applicable, whether the bidder, proposer or contractor, as applicable, has made efforts to form a joint venture with a certified firm, and whether the bidder, proposer, or contractor, as applicable, has made good faith efforts to identify other portions of the Contract that it intends to subcontract.

11. Modification of M/WBE Utilization Plan. (a) A Contractor may request a modification of its M/WBE Utilization Plan after award of this Contract. **PLEASE NOTE: If this Contract is a public works project subject to GML §101(5) (i.e., a contract valued at or below \$3M for projects in New York City) or if the Contract is subject to a project labor agreement in accordance with Labor Law §222, and the bidder is required to identify at the time of bid submission its intended subcontractors for the Wicks trades (plumbing and gas fitting; steam heating, hot water heating, ventilating and air conditioning (HVAC); and electric wiring), the Contractor may request a Modification of its M/WBE Utilization Plan as part of its bid submission.** The Agency may grant a request for Modification of a Contractor's M/WBE Utilization Plan if it determines that the Contractor has established, with appropriate documentary and other evidence, that it made reasonable, good faith efforts to meet the **Participation Goals**. In making such determination, Agency shall consider evidence of the following efforts, as applicable, along with any other relevant factors:

- (i) The Contractor advertised opportunities to participate in the Contract, where appropriate, in general circulation media, trade and professional association publications and small business media, and publications of minority and women's business organizations;
- (ii) The Contractor provided notice of specific opportunities to participate in the Contract, in a timely manner, to minority and women's business organizations;
- (iii) The Contractor sent written notices, by certified mail or facsimile, in a timely manner, to advise MBEs or WBEs that their interest in the Contract was solicited;
- (iv) The Contractor made efforts to identify portions of the work that could be substituted for portions originally designated for participation by MBEs and/or WBEs in the M/WBE Utilization Plan, and for which the Contractor claims an inability to retain MBEs or WBEs;

- (v) The Contractor held meetings with MBEs and/or WBEs prior to the date their bids or proposals were due, for the purpose of explaining in detail the scope and requirements of the work for which their bids or proposals were solicited;
- (vi) The Contractor made efforts to negotiate with MBEs and/or WBEs as relevant to perform specific subcontracts, or act as suppliers or service providers;
- (vii) Timely written requests for assistance made by the Contractor to Agency's M/WBE liaison officer and to DSBS;
- (viii) Description of how recommendations made by DSBS and Agency were acted upon and an explanation of why action upon such recommendations did not lead to the desired level of participation of MBEs and/or WBEs.

Agency's M/WBE officer shall provide written notice to the Contractor of the determination.

(b) The Agency may modify the **Participation Goals** when the scope of the work has been changed by the Agency in a manner that affects the scale and types of work that the Contractor indicated in its **M/WBE Utilization Plan** would be awarded to subcontractors.

12. If this Contract is for an indefinite quantity of construction, standard or professional services or is a requirements type contract and the Contractor has submitted an **M/WBE Utilization Plan** and has committed to subcontract work to MBEs and/or WBEs in order to meet the **Participation Goals**, the Contractor will not be deemed in violation of the M/WBE Program requirements for this Contract with regard to any work which was intended to be subcontracted to an MBE and/or WBE to the extent that the Agency has determined that such work is not needed.

13. If **Participation Goals** have been established for this Contract or a Task Order issued pursuant to this Contract, at least once annually during the term of the Contract or Task Order, as applicable, Agency shall review the Contractor's progress toward attainment of its **M/WBE Utilization Plan**, including but not limited to, by reviewing the percentage of work the Contractor has actually awarded to MBE and/or WBE subcontractors and the payments the Contractor made to such subcontractors.

14. If **Participation Goals** have been established for this Contract or a Task Order issued pursuant to this Contract, Agency shall evaluate and assess the Contractor's performance in meeting those goals, and such evaluation and assessment shall become part of the Contractor's overall contract performance evaluation.

PART B: MISCELLANEOUS

1. The Contractor shall take notice that, if this solicitation requires the establishment of an **M/WBE Utilization Plan**, the resulting contract may be audited by DSBS to determine compliance with Section 6-129. See §6-129(e)(10). Furthermore, such resulting contract may also be examined by the City's Comptroller to assess compliance with the **M/WBE Utilization Plan**.

2. Pursuant to DSBS rules, construction contracts that include a requirement for an **M/WBE Utilization Plan** shall not be subject to the law governing Locally Based Enterprises set forth in Section 6-108.1 of the Administrative Code of the City of New York.

3. DSBS is available to assist contractors and potential contractors in determining the availability of MBEs and/or WBEs to participate as subcontractors, and in identifying opportunities that are appropriate for participation by MBEs and/or WBEs in contracts.

4. Prospective contractors are encouraged to enter into qualified joint venture agreements with MBEs and/or WBEs as defined by Section 6-129(c)(30).

5. By submitting a bid or proposal the Contractor hereby acknowledges its understanding of the M/WBE Program requirements set forth herein and the pertinent provisions of Section 6-129, and any rules promulgated thereunder, and if awarded this Contract, the Contractor hereby agrees to comply with the M/WBE Program requirements of this Contract and pertinent provisions of Section 6-129, and any rules promulgated thereunder, all of which shall be deemed to be material terms of this Contract. The Contractor hereby agrees to make all reasonable, good faith efforts to solicit and obtain the participation of MBEs and/or WBEs to meet the required **Participation Goals**.

ARTICLE II. ENFORCEMENT

1. If Agency determines that a bidder or proposer, as applicable, has, in relation to this procurement, violated Section 6-129 or the DSBS rules promulgated pursuant to Section 6-129, Agency may disqualify such bidder or proposer, as applicable, from competing for this Contract and the Agency may revoke such bidder's or proposer's prequalification status, if applicable.

2. Whenever Agency believes that the Contractor or a subcontractor is not in compliance with Section 6-129 or the DSBS rules promulgated pursuant to Section 6-129, or any provision of this Contract that implements Section 6-129, including, but not limited to any M/WBE Utilization Plan, Agency shall send a written notice to the Contractor describing the alleged noncompliance and offering the Contractor an opportunity to be heard. Agency shall then conduct an investigation to determine whether such Contractor or subcontractor is in compliance.

3. In the event that the Contractor has been found to have violated Section 6-129, the DSBS rules promulgated pursuant to Section 6-129, or any provision of this Contract that implements Section 6-129, including, but not limited to, any M/WBE Utilization Plan, Agency may determine that one of the following actions should be taken:

- (a) entering into an agreement with the Contractor allowing the Contractor to cure the violation;
- (b) revoking the Contractor's pre-qualification to bid or make proposals for future contracts;
- (c) making a finding that the Contractor is in default of the Contract;
- (d) terminating the Contract;
- (e) declaring the Contractor to be in breach of Contract;
- (f) withholding payment or reimbursement;
- (g) determining not to renew the Contract;
- (h) assessing actual and consequential damages;
- (i) assessing liquidated damages or reducing fees, provided that liquidated damages may be based on amounts representing costs of delays in carrying out the purposes of the M/WBE Program, or in meeting the purposes of the Contract, the costs of meeting utilization goals through additional procurements, the administrative costs of investigation and enforcement, or other factors set forth in the Contract;
- (j) exercising rights under the Contract to procure goods, services or construction from another contractor and charge the cost of such contract to the Contractor that has been found to be in noncompliance; or
- (k) taking any other appropriate remedy.

4. If an M/WBE Utilization Plan has been submitted, and pursuant to this Article II, Section 3, the Contractor has been found to have failed to fulfill its **Participation Goals** contained in its M/WBE Utilization Plan or the **Participation Goals** as modified by Agency pursuant to Article I, Part A, Section 11, Agency may assess liquidated damages in the amount of ten percent (10%) of the difference between the dollar amount of work required to be awarded to MBE and/or WBE firms to meet the **Participation Goals** and the dollar amount the Contractor actually awarded and paid, and/or credited, to MBE and/or WBE firms. In view of the difficulty of accurately ascertaining the loss which the City will suffer by reason of Contractor's failure to meet the **Participation Goals**, the foregoing amount is hereby fixed and agreed as the liquidated damages that the City will suffer by reason of such failure, and not as a penalty. Agency may deduct and retain out of any monies which may become due under this Contract the amount of any such liquidated damages; and in case the amount which may become due under this Contract shall be less than the amount of liquidated damages suffered by the City, the Contractor shall be liable to pay the difference.

5. Whenever Agency has reason to believe that an MBE and/or WBE is not qualified for certification, or is participating in a contract in a manner that does not serve a commercially useful function (as defined in Section 6-129(c)(8)), or has violated any provision of Section 6-129, Agency shall notify the Commissioner of DSBS who shall determine whether the certification of such business enterprise should be revoked.

6. Statements made in any instrument submitted to Agency pursuant to Section 6-129 shall be submitted under penalty of perjury and any false or misleading statement or omission shall be grounds for the application of any applicable criminal and/or civil penalties for perjury. The making of a false or fraudulent statement by an MBE and/or WBE in any instrument submitted pursuant to Section 6-129 shall, in addition, be grounds for revocation of its certification.

7. The Contractor's record in implementing its M/WBE Utilization Plan shall be a factor in the evaluation of its performance. Whenever Agency determines that a Contractor's compliance with an M/WBE Utilization Plan has been unsatisfactory, Agency shall, after consultation with the City Chief Procurement Officer, file an advice of caution form for inclusion in VENDEX as caution data.

Tax ID #: 80-0951159

APT E-
PIN #: 85015B0153

SCHEDULE B – M/WBE Utilization Plan
Part I: M/WBE Participation Goals

Part I to be completed by contracting agency

Contract Overview

| | | | |
|-----------------------------|---|------------------|---|
| APT E- Pin # | <u>85015B0153</u> | FMS Project ID#: | <u>CONISPH2B</u> |
| Project Title/ Agency PIN # | <u>CONSTRUCTION OF STORM AND SANITARY SEWERS AND TRUNK WATER MAINS/8502013SE0045C</u> | | |
| Bid/Proposal Response Date | <u>November 17, 2015</u> | | |
| Contracting Agency | <u>Department of Design and Construction</u> | | |
| Agency Address | <u>30-30 Thomson Avenue</u> | City | <u>Long Island City</u> State <u>NY</u> Zip Code <u>11101</u> |
| Contact Person | <u>Lea M. Case</u> | Title | <u>MWBE Liaison & Compliance Analyst</u> |
| Telephone # | <u>(718) 391-1003</u> | Email | <u>casele@ddc.nyc.gov</u> |

Project Description (attach additional pages if necessary)

PROJECT ID: CONISPH2B

FOR THE CONSTRUCTION OF STORM AND SANITARY SEWERS AND TRUNK WATER MAINS AND APPURTENANCES IN CONEY ISLAND AREA PHASE 2B

INCLUDING WATER MAIN WORK

Together With All Work Incidental Thereto

BOROUGH OF BROOKLYN
CITY OF NEW YORK

M/WBE Participation Goals for Services

Enter the percentage amount for each group or for an unspecified goal. Please note that there are no goals for Asian Americans in Professional Services.

Prime Contract Industry: Construction

| Group | Percentage |
|----------------------------------|------------------|
| <u>Unspecified*</u> | 6% |
| or | |
| Black American | UNSPECIFIED* |
| Hispanic American | UNSPECIFIED* |
| Asian American | UNSPECIFIED* |
| Women | UNSPECIFIED* |
| Total Participation Goals | 6% Line 1 |

**Note: For this procurement, individual ethnicity and gender goals are not specified. The Total Participation Goal for construction contracts may be met by using either Black-American, Hispanic-American, Asian American, or Women certified firms or any combination of such firms.*

Tax ID #: 80-0951159

APT E-
PIN #: 85015B0153

SCHEDULE B - Part II: M/WBE Participation Plan

Part II to be completed by the bidder/proposer.

Please note: For Non-M/WBE Prime Contractors who will NOT subcontract any services and will self-perform the entire contract, you must obtain a FULL waiver by completing the Waiver Application on pages 17 and 18 and timely submitting it to the contracting agency pursuant to the Notice to Prospective Contractors. Once a FULL WAIVER is granted, it must be included with your bid or proposal and you do not have to complete or submit this form with your bid or proposal.

Section I: Prime Contractor Contact Information

Tax ID # 80-0951159 FMS Vendor ID # _____

Business Name Bedford Corp Construction Inc Contact Person Mohammed Hajj Safari

Address 77 Bloomfield Ave S.I N.Y. 10314

Telephone # (718) 494-8600 Email M.HajjSafari@verizon.net

Section II: M/WBE Utilization Goal Calculation: Check the applicable box and complete subsection.

PRIME CONTRACTOR ADOPTING AGENCY M/WBE PARTICIPATION GOALS

| <input type="checkbox"/> For Prime Contractors (including Qualified Joint Ventures and M/WBE firms) adopting Agency M/WBE Participation Goals. | Total Bid/Proposal Value | Agency Total Participation Goals (Line 1, Page 13) | Calculated M/WBE Participation Amount |
|--|---------------------------|--|---------------------------------------|
| Calculate the total dollar value of your total bid that you agree will be awarded to M/WBE subcontractors for services and/or credited to an M/WBE prime contractor or Qualified Joint Venture. Please review the Notice to Prospective Contractors for more information on how to obtain credit for M/WBE participation. | $\$ 44,444,444^44 \times$ | $6\% =$ | $\$ 2,666,666.67$ Line 2 |

PRIME CONTRACTOR OBTAINED PARTIAL WAIVER APPROVAL: ADOPTING MODIFIED M/WBE PARTICIPATION GOALS

| <input type="checkbox"/> For Prime Contractors (including Qualified Joint Ventures and M/WBE firms) adopting Modified M/WBE Participation Goals. | Total Bid/Proposal Value | Adjusted Participation Goal (From Partial Waiver) | Calculated M/WBE Participation Amount |
|--|--------------------------|---|---------------------------------------|
| Calculate the total dollar value of your total bid that you agree will be awarded to M/WBE subcontractors for services and/or credited to an M/WBE prime contractor or Qualified Joint Venture. Please review the Notice to Prospective Contractors for more information on how to obtain credit for M/WBE participation. | $\$$ | \times | $=$ $\$$ Line 3 |

Tax ID #: 80-0951159

APT E-
PIN #: 85015B0153

Section III: M/WBE Utilization Plan: How Proposer/Bidder Will Fulfill M/WBE Participation Goals. Please review the Notice to Prospective Contractors for more information on how to obtain credit for M/WBE participation. Check applicable box. The Proposer or Bidder will fulfill the M/WBE Participation Goals:

As an M/WBE Prime Contractor that will self-perform and/or subcontract to other M/WBE firms a portion of the contract the value of which is at least the amount located on Lines 2 or 3 above, as applicable. The value of any work subcontracted to non-M/WBE firms will not be credited towards fulfillment of M/WBE Participation Goals. Please check all that apply to Prime Contractor:

MBE WBE

As a Qualified Joint Venture with an M/WBE partner, in which the value of the M/WBE partner's participation and/or the value of any work subcontracted to other M/WBE firms is at least the amount located on Lines 2 or 3 above, as applicable. The value of any work subcontracted to non M/WBE firms will not be credited towards fulfillment of M/WBE Participation Goals.

As a non M/WBE Prime Contractor that will enter into subcontracts with M/WBE firms the value of which is at least the amount located on Lines 2 or 3 above, as applicable.

Section IV: General Contract Information

What is the expected percentage of the total contract dollar value that you expect to award in subcontracts for services, regardless of M/WBE status? % 10

Enter brief description of the type(s) and dollar value of subcontracts for all/any services you plan on subcontracting if awarded this contract. For each item, indicate whether the work is designated for participation by MBEs and/or WBEs and the time frame in which such work is scheduled to begin and end. Use additional sheets if necessary.

| | | | |
|----|--------------|--------------|-----|
| 1 | Conc work | 1,616,666.67 | MBE |
| 2 | Paves | 1,050,000.- | WBE |
| 3 | Asphalt | 1,250,000.- | |
| 4 | Landscaping | 25,500 | |
| 5 | Pest Control | 77,000 | |
| 6 | Engineer Svc | 100,000 | |
| 7 | | | |
| 8 | | | |
| 9 | | | |
| 10 | | | |
| 11 | | | |
| 12 | | | |
| 13 | | | |
| 14 | | | |
| 15 | | | |
| 16 | | | |
| 17 | | | |

Scopes of Subcontract Work

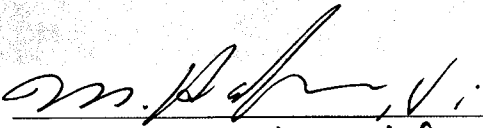
Tax ID #: 80-0951159

APT E-
PIN #: 85015B0153

Section 13. Vendor Certification and Required Affirmations

I hereby

- 1) acknowledge my understanding of the M/WBE participation requirements as set forth herein and the pertinent provisions of Section 6-129 of the Administrative Code of the City of New York ("Section 6-129"), and the rules promulgated thereunder;
- 2) affirm that the information supplied in support of this M/WBE Utilization Plan is true and correct;
- 3) agree, if awarded this Contract, to comply with the M/WBE participation requirements of this Contract, the pertinent provisions of Section 6-129, and the rules promulgated thereunder, all of which shall be deemed to be material terms of this Contract;
- 4) agree and affirm that it is a material term of this Contract that the Vendor will award the total dollar value of the M/WBE Participation Goals to certified MBEs and/or WBEs, unless a full waiver is obtained or such goals are modified by the Agency; and
- 5) agree and affirm, if awarded this Contract, to make all reasonable, good faith efforts to meet the M/WBE Participation Goals, or if a partial waiver is obtained or such goals are modified by the Agency, to meet the modified Participation Goals by soliciting and obtaining the participation of certified MBE and/or WBE firms.

Signature 
Print Name Mohammad Hajisafari

Date Nov 17, 2015
Title V.P.

SCHEDULE B – PART III – REQUEST FOR WAIVER OF M/WBE PARTICIPATION REQUIREMENT

Tax ID # _____ FMS Vendor ID # _____
 Business Name _____
 Contact Name _____ Telephone # _____ Email _____
 Type of Procurement Competitive Sealed Bids Other Bid/Response Due Date _____
 APT E-PIN # (for this procurement): _____ Contracting Agency: _____

M/WBE Participation Goals as described in bid/solicitation documents

_____ % Agency M/WBE Participation Goal

Proposed M/WBE Participation Goal as anticipated by vendor seeking waiver

_____ % of the total contract value anticipated in good faith by the bidder/proposer to be subcontracted for services and/or credited to an M/WBE Prime Contractor or Qualified Joint Venture.

- Vendor does not subcontract services, and has the capacity and good faith intention to perform all such work itself with its own employees.
- Vendor subcontracts *some* of this type of work but at a *lower* % than bid/solicitation describes, and has the capacity and good faith intention to do so on this contract. (Attach subcontracting plan outlining services that the vendor will self-perform and subcontract to other vendors or consultants.)
- Vendor has other legitimate business reasons for proposing the M/WBE Participation Goal above. Explain under separate cover.

List 3 most recent contracts performed for NYC agencies (if any). Include information for each subcontract awarded in performance of such contracts. Add more pages if necessary.

| | | |
|---|---|---|
| CONTRACT NO. _____ | AGENCY _____ | DATE COMPLETED _____ |
| Total Contract Amount \$ _____ | Total Amount Subcontracted \$ _____ | |
| Item of Work Subcontracted and Value of subcontract _____ | Item of Work Subcontracted and Value of subcontract _____ | Item of Work Subcontracted and Value of subcontract _____ |
| CONTRACT NO. _____ | AGENCY _____ | DATE COMPLETED _____ |
| Total Contract Amount \$ _____ | Total Amount Subcontracted \$ _____ | |
| Item of Work Subcontracted and Value of subcontract _____ | Item of Work Subcontracted and Value of subcontract _____ | Item of Work Subcontracted and Value of subcontract _____ |
| CONTRACT NO. _____ | AGENCY _____ | DATE COMPLETED _____ |
| Total Contract Amount \$ _____ | Total Amount Subcontracted \$ _____ | |
| Item of Work Subcontracted and Value of subcontract _____ | Item of Work Subcontracted and Value of subcontract _____ | Item of Work Subcontracted and Value of subcontract _____ |

List 3 most recent contracts performed for other entities. Include information for each subcontract awarded in performance of such contracts. Add more pages if necessary.

(Complete ONLY if vendor has performed fewer than 3 New York City contracts.)

TYPE OF Contract _____ ENTITY _____ DATE COMPLETED _____
 Manager at entity that hired vendor (Name/Phone No./Email) _____
 Total Contract Amount \$ _____ Total Amount Subcontracted \$ _____
 Type of Work Subcontracted _____

TYPE OF Contract _____ AGENCY/ENTITY _____ DATE COMPLETED _____
 Manager at agency/entity that hired vendor (Name/Phone No./Email) _____
 Total Contract Amount \$ _____ Total Amount Subcontracted \$ _____
 Item of Work Subcontracted and Value of subcontract _____ Item of Work Subcontracted and Value of subcontract _____ Item of Work Subcontracted and Value of subcontract _____

TYPE OF Contract _____ AGENCY/ENTITY _____ DATE COMPLETED _____
 Manager at entity that hired vendor (Name/Phone No./Email) _____
 Total Contract Amount \$ _____ Total Amount Subcontracted \$ _____
 Item of Work Subcontracted and Value of subcontract _____ Item of Work Subcontracted and Value of subcontract _____ Item of Work Subcontracted and Value of subcontract _____

Faint, illegible text at the top of the signature section.

Signature: _____ Date: _____
 Print Name: _____ Title: _____

Faint, illegible text above the approval section.
AGENCY CHIEF CONTRACTING OFFICER APPROVAL
 Signature: _____ Date: _____

CITY CHIEF PROCUREMENT OFFICER APPROVAL
 Signature: _____ Date: _____

Waiver Determination
 Full Waiver Approved:
 Waiver Denied:
 Partial Waiver Approved:
 Revised Participation Goal: _____%

APPRENTICESHIP PROGRAM REQUIREMENTS

Bidders are advised that the Apprenticeship Program Requirements set forth below apply to each contract for which a check mark is indicated before the word "Yes". Compliance with these requirements will be determined solely by the City.

YES NO

(1) Apprenticeship Program Requirements

Notice to Bidders: Please be advised that, pursuant to the authority granted to the City under Labor Law Section 816-b, the Department of Design and Construction hereby requires that the contractor awarded a contract as a result of this Invitation for Bids, and any of its subcontractors with subcontracts worth two million dollars or over, have, prior to entering into such contract or subcontract, apprenticeship agreements appropriate for the type and scope of work to be performed that have been registered with, and approved by, the New York State Commissioner of Labor. In addition, the contractor and its subcontractors will be required to show that such apprenticeship program/s have successfully passed the two year Probation period following the initial registration date of such program/s with the New York State Department of Labor.

The failure to prove, upon request, that these requirements have been met shall result in the contract not being awarded to the contractor or the subcontract not being approved.

Please be further advised that, pursuant to Labor Law Section 220, the allowable ratio of apprentices to journeypersons in any craft classification shall not be greater than the ratio permitted to the contractor as to its workforce on any job under the registered apprenticeship program.

(2) Apprenticeship Program Questionnaire

The bidder must submit a completed and signed Apprenticeship Program Questionnaire. The Questionnaire is set forth on the following page of the Bid Booklet.

APPRENTICESHIP PROGRAM QUESTIONNAIRE

PROJECT ID: CONISPH2B

The bidder must submit a completed and signed Apprenticeship Program Questionnaire.

Name of Bidder: _____

1. Does the bidder have an Apprenticeship Program appropriate for the type and scope of work to be performed?
[Note: Participation may be by either direct sponsorship or through collective bargaining agreement(s).]

_____ YES _____ NO

2. Has the bidder's Apprenticeship Program been registered with, and approved by, the New York State Commissioner of Labor?

_____ YES _____ NO

3. Has the bidder's Apprenticeship Program had three years of successful experience in providing career opportunities?

_____ YES _____ NO

If the answer to Question #3 is "Yes", the bidder shall, in the space below, provide information regarding the experience the Apprenticeship Program has had in providing career opportunities. The bidder may attach additional pages if necessary.

Bidder: _____

By: _____ Title: _____
(Signature of Partner or Corporate Officer)

Date: _____

SAFETY QUESTIONNAIRE

The bidder must include, with its bid, all information requested on this Safety Questionnaire. Failure to provide a completed and signed Safety Questionnaire at the time of bid opening may result in disqualification of the bid as non-responsive.

1. Bidder Information:

Company Name: Bedford Corp Construction Inc.

DDC Project Number: COM1SP#2B

Company Size: Ten (10) employees or less
 Greater than ten (10) employees

Company has previously worked for DDC YES NO

2. Type(s) of Construction Work

| TYPE OF WORK | LAST 3 YEARS | THIS PROJECT |
|--------------------------------------|--------------|--------------|
| General Building Construction | _____ | _____ |
| Residential Building Construction | _____ | _____ |
| Nonresidential Building Construction | _____ | _____ |
| Heavy Construction, except building | ✓ | ✓ |
| Highway and Street Construction | ✓ | ✓ |
| Heavy Construction, except highways | _____ | _____ |
| Plumbing, Heating, HVAC | _____ | _____ |
| Painting and Paper Hanging | _____ | _____ |
| Electrical Work | _____ | _____ |
| Masonry, Stonework and Plastering | _____ | _____ |
| Carpentry and Floor Work | _____ | _____ |
| Roofing, Siding, and Sheet Metal | _____ | _____ |
| Concrete Work | _____ | _____ |
| Specialty Trade Contracting | _____ | _____ |
| Asbestos Abatement | _____ | _____ |
| Other (specify) | _____ | _____ |

3. Experience Modification Rate:

The Experience Modification Rate (EMR) is a rating generated by the National Council of Compensation Insurance (NCCI). This rating is used to determine the contractor's premium for worker's compensation insurance. The contractor may obtain its EMR by contacting its insurance broker or the NCCI. If the contractor cannot obtain its EMR, it must submit a written explanation as to why.

The Contractor must indicate its Intrastate and Interstate EMR for the past three years. [Note: For contractors with less than three years of experience, the EMR will be considered to be 1.00].

| YEAR | INTRASTATE RATE | INTERSTATE RATE |
|-------------|------------------------------|-----------------|
| <u>2014</u> | <u>1</u> | <u>M/A</u> |
| <u>2013</u> | <u>1</u> | <u>M/A</u> |
| <u>2012</u> | <u>Business Started 2013</u> | <u>M/A</u> |

If the Intrastate and/or Interstate EMR for any of the past three years is greater than 1.00, the contractor must attach, to this questionnaire, a written explanation for the rating and identify what corrective action was taken to correct the situation resulting in that rating.

4. OSHA Information:

- YES NO Contractor has received a willful violation issued by OSHA or New York City Department of Buildings (NYCDOB) within the last three years.
- YES NO Contractor has had an incident requiring OSHA notification within 8 hours (all work-related fatalities) or an incident requiring OSHA notification within 24 hours (all work-related in-patient hospitalizations, all amputations and all losses of an eye).

The Occupational Safety and Health Act (OSHA) of 1970 requires employers with ten or more employees, on a yearly basis to complete and maintain on file the form entitled "Log of Work-related Injuries and Illnesses". This form is commonly referred to as the OSHA 300 Log (OSHA 200 Log for 2001 and earlier).

The OSHA 300 Log must be submitted for the last three years for contractors with more than ten employees.

The Contractor must indicate the total number of hours worked by its employees, as reflected in payroll records for the past three years.

The contractor must submit the Incident Rate for Lost Time Injuries (the Incident Rate) for the past three years. The Incident Rate is calculated in accordance with the formula set forth below. For each given year, the total number of incidents is the total number of non-fatal injuries and illnesses reported on the OSHA 300 Log. The 200,000 hours represents the equivalent of 100 employees working forty hours a week, fifty weeks per year.

$$\text{Incident Rate} = \frac{\text{Total Number of Incidents} \times 200,000}{\text{Total Number of Hours Worked by Employees}}$$

| YEAR | TOTAL NUMBERS OF HOURS WORKED BY EMPLOYEES | INCIDENT RATE |
|-------------|--|---------------|
| <u>2014</u> | <u>70,419.5</u> | <u>2.84</u> |
| <u>2013</u> | <u>29,597</u> | <u>6.76</u> |
| <u>2012</u> | <u>Business Started 2013</u> | <u>f</u> |

If the contractor's Incident Rate for any of the past three years is one point higher than the Incident Rate for the type of construction it performs (listed below), the contractor must attach, to this questionnaire, a written explanation for the relatively high rate.

| | |
|--------------------------------------|------------|
| General Building Construction | 8.5 |
| Residential Building Construction | 7.0 |
| Nonresidential Building Construction | 10.2 |
| Heavy Construction, except building | <u>8.7</u> |
| Highway and Street Construction | <u>9.7</u> |
| Heavy Construction, except highways | 8.3 |
| Plumbing, Heating, HVAC | 11.3 |
| Painting and Paper Hanging | 6.9 |
| Electrical Work | 9.5 |
| Masonry, Stonework and Plastering | 10.5 |
| Carpentry and Floor Work | 12.2 |
| Roofing, Siding, and Sheet Metal | 10.3 |
| Concrete Work | 8.6 |
| Specialty Trade Contracting | 8.6 |

5. Safety Performance on Previous DDC Project(s)

YES NO Contractor previously audited by the DDC Office of Site Safety.

DDC Project Number(s): _____, _____, _____

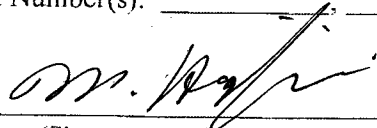
YES NO Accident on previous DDC Project(s).

DDC Project Number(s): _____, _____, _____

YES NO Fatality or Life-altering Injury on DDC Project(s) within the last three years.
[Examples of a life-altering injury include loss of limb, loss of a sense (e.g., sight, hearing), or loss of neurological function].

DDC Project Number(s): _____, _____, _____

Date: Nov 17, 2015

By: 
(Signature of Owner, Partner, Corporate Officer)

Title: V.P.

(NO TEXT ON THIS PAGE)



Summary of Work-Related Injuries and Illnesses

All establishments covered by Part 1904 must complete this Summary page, even if no injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete. Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the log. If you had no cases write "0."

Employees former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR 1904.35, in OSHA's Recordkeeping rule, for further details on the access provisions for these forms.

| | | | |
|------------------------|--------------------------------------|--|--|
| Total number of deaths | Total number of cases away from work | Total number of cases with job transfer or restriction | Total number of other recordable cases |
| 0 | 0 | 0 | 1 |
| (G) | (H) | (I) | (J) |

| | |
|-------------------------------------|---|
| Total number of days away from work | Total number of days of job transfer or restriction |
| 2 | 0 |
| (K) | (L) |

| | | | | |
|------------------------|---------------------------|---|-------------------------|---|
| Total number of... (M) | (1) Injury | 1 | (4) Poisoning | 0 |
| | (2) Skin Disorder | 0 | (5) Hearing Loss | 0 |
| | (3) Respiratory Condition | 0 | (6) All Other Illnesses | 0 |

Post this Summary page from February 1 to April 30 of the year following the year covered by the form

Public reporting burden for this collection of information is estimated to average 58 minutes per response, including time to review the instruction, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any aspects of this data collection, contact: US Department of Labor, OSHA, Office of Statistics, Room N-3644, 201 Constitution Ave. NW, Washington, DC 20210. Do not send the completed forms to this office.

Establishment information

Your establishment name Bedford Corp Construction, Inc.
 Street 77 Bloomfield Avenue
 City Staten Island State New York Zip 10314
 Industry description (e.g., Manufacture of motor truck trailers)
Heavy Construction
 Standard Industrial Classification (SIC), if known (e.g., SIC 3715)
1 6 2 9
 OR North American Industrial Classification (NAICS), if known (e.g., 336212)

Employment information

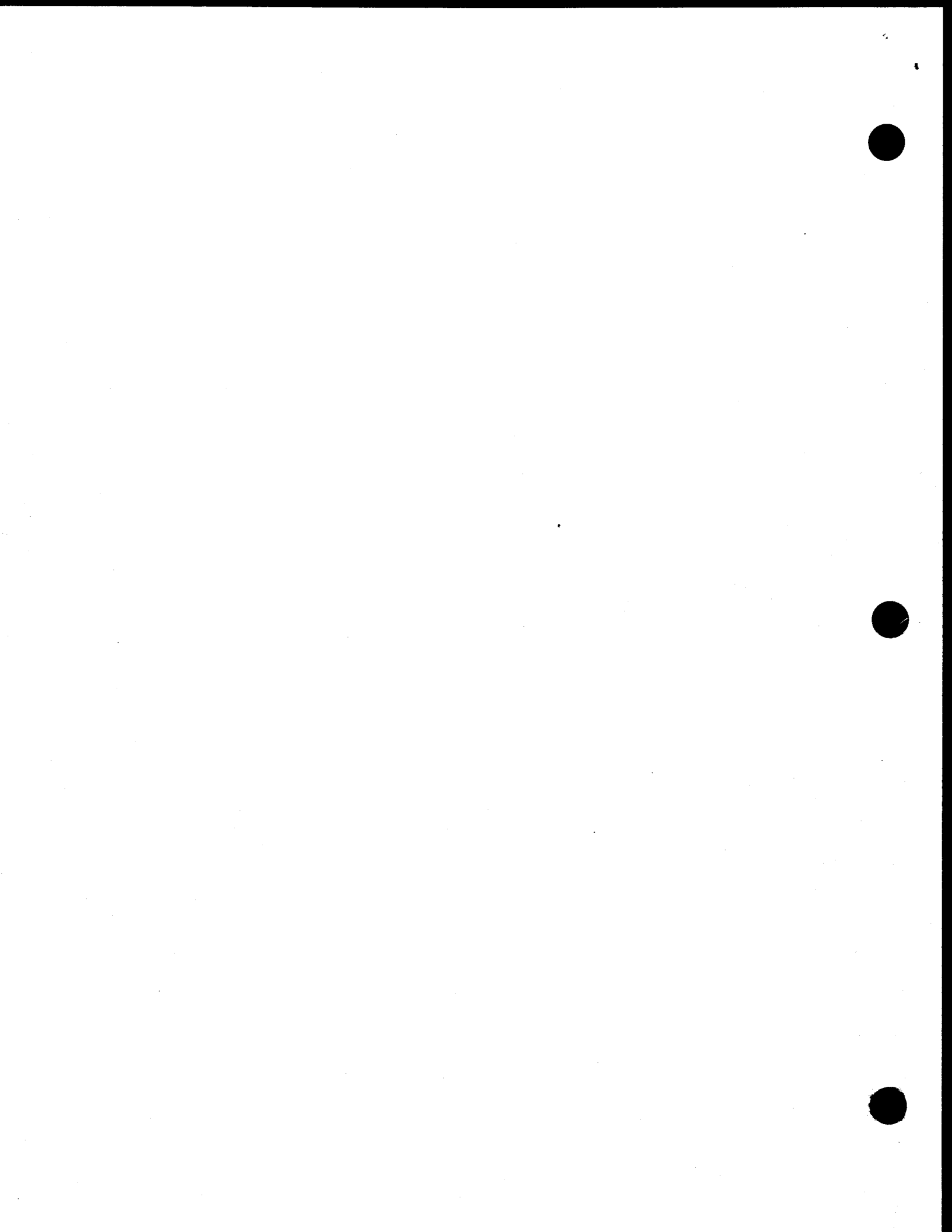
Annual average number of employees 35.5
 Total hours worked by all employees last year 70,419.50

Sign here

Knowingly falsifying this document may result in a fine.

I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.

T.J. Moore
 Company executive
 T.J. Moore
 (718) 494-8600
 Phone
 Controller
 Title
 9/30/2015
 Date



OSHA's Form 301 Injuries and Illnesses Incident Report



Form approved OMB no. 1218-0176

Attention: This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes.

This *Injury and Illness Incident Report* is one of the first forms you must fill out when a recordable work-related injury or illness has occurred. Together with the *Log of Work-Related Injuries and Illnesses* and the accompanying *Summary*, these forms help the employer and OSHA develop a picture of the extent and severity of work-related incidents.

Within 7 calendar days after you receive information that a recordable work-related injury or illness has occurred, you must fill out this form or an equivalent. Some state workers' compensation, insurance, or other reports may be acceptable substitutes. To be considered an equivalent form, any substitute must contain all the information required for this form.

According to Public Law 91-596 and 29 CFR 1904, OSHA's recordkeeping rule, you must keep this form on file for 5 years following the year to which it pertains.

If you need additional copies of this form, you may photocopy and use as many as you need.

Information about the employee

- 1) Full Name Daniel DeRoss
- 2) Street 182 Hope Avenue
City Staten Island State NY Zip 10314
- 3) Date of birth 5/20/1994
- 4) Date hired 9/9/2013
- 5) Male Female

Information about the physician or other health care professional

- 6) Name of physician or other health care professional
ER - Physicians of University Hospital

- 7) If treatment was given away from the worksite, where was it given?

Facility Physicians of University Hospital
Street One Edgewater Street - 6th Floor
City Staten Island State NY Zip 10305-4900

- 8) Was employee treated in an emergency room?

Yes No

- 9) Was employee hospitalized overnight as an in-patient?

Yes No

| | |
|--------------------------------|-----------------------|
| Completed by <u>T.J. Moore</u> | Date <u>9/30/2015</u> |
| Title <u>Controller</u> | |
| Phone <u>(718) 494-8600</u> | |

Information about the case

- 10) Case number from the Log 1 (Transfer the case number from the Log after you record the case.)
- 11) Date of injury or illness 3/24/2014
- 12) Time employee began work 7:00 AM AM/PM
- 13) Time of event 10:30 AM AM/PM Check if time cannot be determined

- 14) What was the employee doing just before the incident occurred? Describe the activity, as well as the tools, equipment or material the employee was using. Be specific. Examples: "climbing a ladder while carrying roofing materials"; "spraying chlorine from hand sprayer"; "daily computer key-entry."
Retrieving a wrench underneath a van.

- 15) What happened? Tell us how the injury occurred. Examples: "When ladder slipped on wet floor, worker fell 20 feet"; "Worker was sprayed with chlorine when gasket broke during replacement"; "Worker developed soreness in wrist over time."
After retrieving the wrench, Mr. DeRoss came out from under the van before clearing undercarriage.

- 16) What was the injury or illness? Tell us the part of the body that was affected and how it was affected; be more specific than "hurt", "pain", or "sore." Examples: "strained back"; "chemical burn, hand"; "carpal tunnel syndrome."
Cut to the back of the head.

- 17) What object or substance directly harmed the employee? Examples: "concrete floor"; "chlorine"; "radial arm saw." If this question does not apply to the incident, leave it blank.
Van.

- 18) If the employee died, when did death occur? Date of death N/A

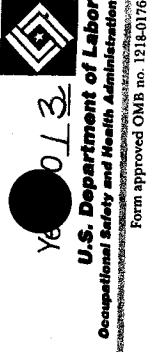
Public reporting burden for this collection of information is estimated to average 22 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Persons are not required to respond to the collection of information unless it displays a current valid OMB control number. If you have any comments about this estimate or any other aspects of this data collection, including suggestions for reducing this burden, contact: US Department of Labor, OSHA Office of Statistics, Room N-3644, 200 Constitution Ave, NW, Washington, DC 20210. Do not send the completed forms to this office.



Log of Work-Related Injuries and Illnesses

You must record information about every work-related death and about every work-related injury or illness that involves loss of consciousness, restricted work activity or job transfer, days away from work, or medical treatment beyond first aid. You must also record significant work-related injuries and illnesses that are diagnosed by a physician or licensed health care professional. You must also record work-related injuries and illnesses that meet any of the specific recording criteria listed in 29 CFR Part 1904.8 through 1904.12. Feel free to use two lines for a single case if you need to. You must complete an injury and illness incident report (OSHA Form 301) or equivalent form for each injury or illness recorded on this form. If you're not sure whether a case is recordable, call your local OSHA office for help.

Attention: This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes.



Establishment name: Staten Island State NY

Form approved OMB no. 1218-0176

City: Staten Island

Identify the person

(A) Case no. (B) Employee's name (C) Job title (e.g., Welder) (D) Date of injury or onset of illness (E) Where the event occurred (e.g., Loading dock north end)

(F) Describe the injury or illness, parts of body affected, and object/substance that directly injured or made person ill (e.g., Second degree burns on right forearm from acetylene torch)

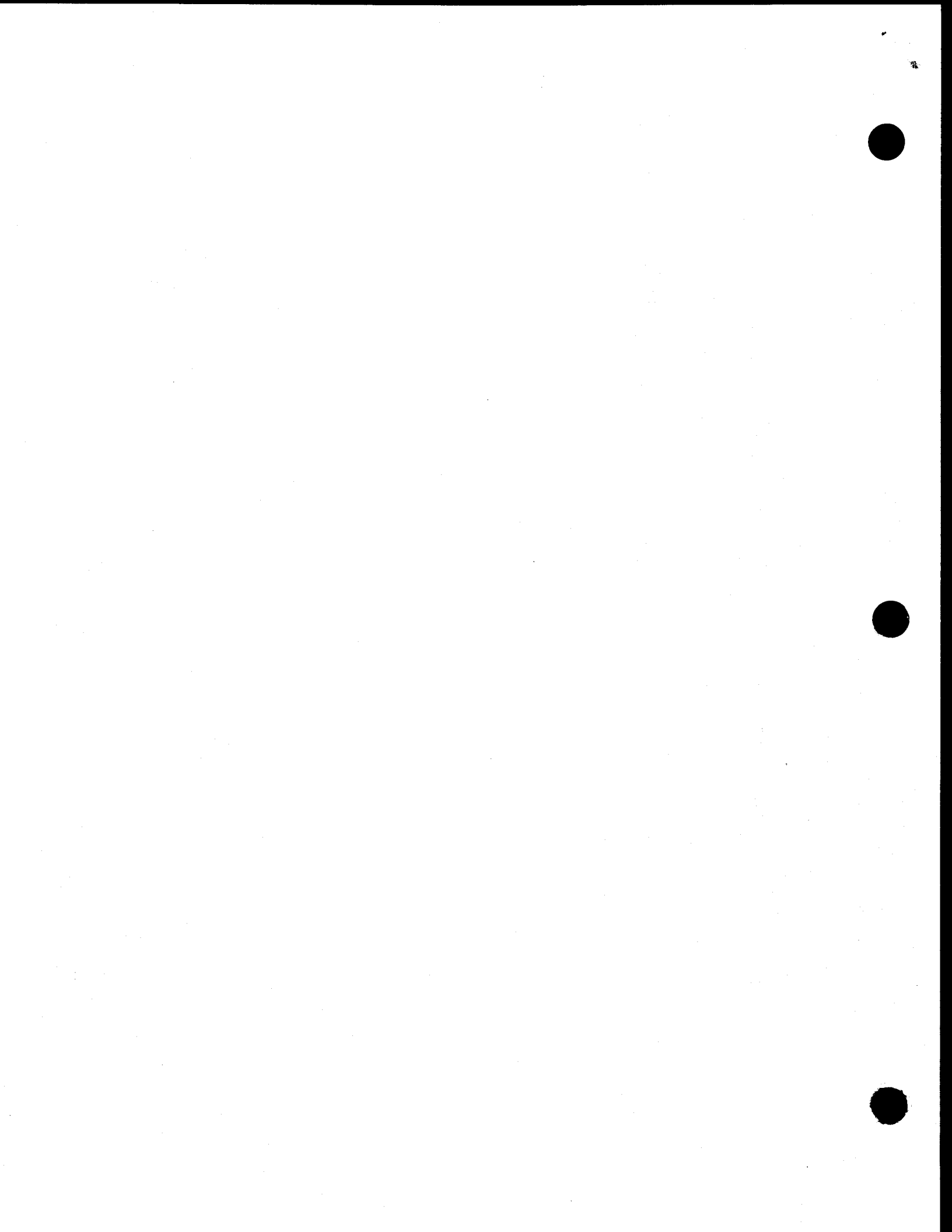
Classify the case CHECK ONLY ONE box for each case based on the most serious outcome for that case.

Enter the number of days the injured or ill worker was: (K) Away from work (L) On job transfer or restriction (M) Injury

Table with columns for case classification and days of absence. Includes checkboxes for Death (G), Days away from work (H), Job transfer (I), Other records (J), Skin disorder (M), Respiratory condition (N), Poisoning (O), Hearing loss (P), and All other illnesses (Q).

Page totals: [Sum of values in columns K-Q] Be sure to transfer these totals to the Summary page (Form 300A) before you post it. Page 1 of 1

Public reporting burden for this collection of information is estimated to average 14 minutes per response, including time to review the instructions, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any other aspects of this data collection, contact: US Department of Labor, OSHA Office of Statistical Analysis, Room N-3644, 200 Constitution Avenue, NW, Washington, DC 20210. Do not send the completed forms to this office.



OSHA's Form 301 Injury and Illness Incident Report

This *Injury and Illness Incident Report* is one of the first forms you must fill out when a recordable work-related injury or illness has occurred. Together with the *Log of Work-Related Injuries and Illnesses* and the accompanying *Summary*, these forms help the employer and OSHA develop a picture of the extent and severity of work-related incidents.

Within 7 calendar days after you receive information that a recordable work-related injury or illness has occurred, you must fill out this form or an equivalent. Some state workers' compensation, insurance, or other reports may be acceptable substitutes. To be considered an equivalent form, any substitute must contain all the information asked for on this form.

According to Public Law 91-596 and 29 CFR 1904, OSHA's recordkeeping rule, you must keep this form on file for 5 years following the year to which it pertains.

If you need additional copies of this form, you may photocopy and use as many as you need.

Completed by TJ Moore
Title Controller
Phone 218.494.8600 Date 9/3/13

Information about the employee

- 1) Full name Abbas Behnam - Bakhsh
- 2) Street 31 Marwin Road
City Staten Island State NY ZIP 10309
- 3) Date of birth 04/21/58
- 4) Date hired 04/30/13
- 5) Male Female

Information about the physician or other health care professional

- 6) Name of physician or other health care professional n/a
- 7) If treatment was given away from the worksite, where was it given?
Facility n/a
Street _____
City _____ State _____ ZIP _____
- 8) Was employee treated in an emergency room?
 Yes No
- 9) Was employee hospitalized overnight as an in-patient?
 Yes No

Attention: This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes.

Information about the case

- 10) Case number from the Log 106661M (Transfer the case number from the Log after you record the case.)
- 11) Date of injury or illness 07.05.13
- 12) Time employee began work 7:00 AM PM
- 13) Time of event _____ AM / PM Check if time cannot be determined

14) What was the employee doing just before the incident occurred? Describe the activity, as well as the tools, equipment, or material the employee was using. Be specific. Example: "climbing a ladder while carrying roofing materials"; "spraying chlorine from hand sprayer"; "daily computer key-entry."
standing by a 950 wheel loader

15) What happened? Tell us how the injury occurred. Examples: "When ladder slipped on wet floor, worker fell 20 feet"; "Worker was sprayed with chlorine when gasket broke during replacement"; "Worker developed soreness in wrist over time."

As pipes were removed from the truck, the straps that held the pipes together broke.

16) What was the injury or illness? Tell us the part of the body that was affected and how it was affected; be more specific than "hurt," "pain," or "sore." Examples: "strained back"; "chemical burn, hand"; "carpal tunnel syndrome."

The pipes fatally crushed Mr. Bakhsh who was standing below those pipes.

17) What object or substance directly harmed the employee? Examples: "concrete floor"; "chlorine"; "radial arm saw." If this question does not apply to the incident, leave it blank.

Pipe 15' x 24" weighing five to six thousand pounds.

18) If the employee died, when did death occur? Date of death 07.05.13

The reporting burden for this collection of information is estimated to average 22 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Persons are not required to respond to the collection of information unless it displays a current valid OMB control number. If you have any comments about this estimate or any other aspects of this data collection, including suggestions for reducing this burden, contact: US Department of Labor, OSHA Office of Statistical Analysis, Room N-3644, 200 Constitution Avenue, NW, Washington, DC 20210. Do not send the completed forms to this office.



Summary of Work-Related Injuries and Illnesses



Y 013

U.S. Department of Labor
Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

All establishments covered by Part 1904 must complete this Summary page, even if no work-related injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete and accurate before completing this summary.

Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the Log. If you had no cases, write "0".

Employees, former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR Part 1904.35, in OSHA's recordkeeping rule, for further details on the access provisions for these forms.

Number of Cases

| Total number of deaths | Total number of cases with days away from work | Total number of cases with job transfer or restriction | Total number of other recordable cases |
|------------------------|--|--|--|
| (G) 0 | (H) 0 | (I) 0 | (J) 0 |

Number of Days

| Total number of days away from work | Total number of days of job transfer or restriction |
|-------------------------------------|---|
| (K) 0 | (L) 0 |

Injury and Illness Types

| Total number of ... | (1) Injuries | (2) Skin disorders | (3) Respiratory conditions | (4) Poisonings | (5) Hearing loss | (6) All other illnesses |
|---------------------|--------------|--------------------|----------------------------|----------------|------------------|-------------------------|
| (M) | 0 | 0 | 0 | 0 | 0 | 0 |

Post this Summary page from February 1 to April 30 of the year following the year covered by the form.

Public reporting burden for this collection of information is estimated to average 58 minutes per response, including time to review the instructions, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any other aspects of this data collection, contact: US Department of Labor, OSHA Office of Statistical Analysis, Room N-3644, 200 Constitution Avenue, NW, Washington, DC 20210. Do not send the completed forms to this office.

Establishment Information

Your establishment name Bedford Carp Construction Corp

Street 17 Bloomfield Ave

City Staten Island State NY ZIP 10314

Industry description (e.g., Manufacture of motor truck trailers)

Heavy Construction

Standard Industrial Classification (SIC), if known (e.g., 3715)

1429

OR

North American Industrial Classification (NAICS), if known (e.g., 336212)

Employment Information (If you don't have these figures, see the Worksheet on the back of this page to estimate.)

Annual average number of employees 21

Total hours worked by all employees last year 629,597

Sign here

Knowingly falsifying this document may result in a fine.

I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.

[Signature] Controller
The Date 12/20/14



Pre-Award Process

The bidder is advised that as part of the pre-award review of its bid, it may be required to submit the information described in Sections (A) through (D) below. If required, such information must be submitted by the bidder within five (5) business days following receipt of notification from DDC that it is among the low bidders. Such notification from DDC will be by facsimile or in writing and will specify the types of information must be submitted. The types of information the bidder may be required to submit are described below. In the event the bidder fails to submit the required information within the specified time frame, its bid may be rejected as nonresponsive.

- (A) **Project Reference Form:** If required, the bidder must complete and submit the Project Reference Form set forth on pages 26 through 28 of this Bid Booklet. The Project Reference Form consists of 3 parts: (1) Similar Contracts Completed by the Bidder, (2) Contracts Currently Under Construction by the Bidder, and (3) Pending Contracts Not Yet Started by the Bidder.
- (B) **Copy of License:** If required, the bidder must submit a copy of the license under which the bidder will be performing the work. Such license must clearly show the following: (1) Name of the Licensee, (2) License Number, and (3) Expiration date of the License. A copy of the license will be required from bidders for the following contracts: Plumbing Work, Electrical Work and Asbestos Abatement.
- (C) **Financial Information:** If required, the bidder must submit the financial information described below:
- (1) **Audited Financial Statements:** Financial statements (Balance Sheet and Income Statement) of the entity submitting the bid, as audited by an independent auditor licensed to practice as a certified public accountant (CPA). Audited financial statements for the three most recent fiscal years must be submitted. Each such financial statement must include the auditor's standard report.

If the bidder does not have audited financial statements, it must submit an affidavit attesting to the fact that the bidder does not have such statements. In addition, the bidder must submit the following documentation covering the three most recent fiscal years: signed federal tax returns, unaudited financial statements, and a "certified review letter" from a certified public accountant (CPA) verifying the unaudited financial statements.

Unless the most recent audited or unaudited financial statement was issued within ninety (90) days, the bidder must submit interim financial information that includes data on financial position and results of operation (income data) for the current fiscal year. Such information may be summarized on a monthly or quarterly basis or at other intervals.

- (2) **Schedule of Aged Accounts Receivable,** including portion due within ninety (90) days.

(D) **Project Specific Information:** If required, the bidder must submit the project specific information described below:

- (1) Statement indicating the number of years of experience the bidder has had and in what type of construction.
- (2) Resumes of all key personnel to be involved in the project, including the proposed project superintendent.
- (3) List of significant pieces of equipment expected to be used for the contract, and whether such equipment is owned or leased.
- (4) Description of work expected to be subcontracted, and to what firms, if known.
- (5) List of key material suppliers.
- (6) Preliminary bar chart time schedule
- (7) Contractor's expected means of financing the project. This should be based on the assumption that the contractor is required to finance 2X average monthly billings throughout the contract period.
- (8) Any other issues the contractor sees as impacting his ability to complete the project according to the contract.

In addition to the information described in Sections (A) through (D) above, the bidder shall submit such additional information as the Commissioner may require, including without limitation, an explanation or justification for specific unit price items.

The bidder is further advised that it may be required to attend a pre-award meeting with DDC representatives. If such a meeting is convened, the bidder will be advised as to any additional material to be provided.

A. PROJECT REFERENCES – SIMILAR CONTRACTS COMPLETED BY THE BIDDER

List all contracts substantially completed within the last 4 years similar to the contract being awarded, up to a maximum of 10, in descending order of date of substantial completion.

| Project & Location | Contract Type | Contract Amount (\$000) | Date Completed | Owner Reference & Tel. No. | Architect/Engineer Reference & Tel. No. if different from owner |
|--------------------|---------------|-------------------------|----------------|----------------------------|---|
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B. PROJECT REFERENCES – CONTRACTS CURRENTLY UNDER CONSTRUCTION BY THE BIDDER

List all contracts currently under construction even if they are not similar to the contract being awarded.

| Project & Location | Contract Type | Contract Amount (\$000) | Subcontracted to Others (\$000) | Uncompleted Portion (\$000) | Date Scheduled to Complete | Owner Reference & Tel. No. | Architect/Engineer Reference & Tel. No. if different from owner |
|--------------------|---------------|-------------------------|---------------------------------|-----------------------------|----------------------------|----------------------------|---|
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C. PROJECT REFERENCES – PENDING CONTRACTS NOT YET STARTED BY THE BIDDER

List all contracts awarded to or won by the bidder but not yet started.

| Project & Location | Contract Type | Contract Amount (\$000) | Date Scheduled to Start | Owner Reference & Tel. No. | Architect/Engineer Reference & Tel. No. if different from owner |
|--------------------|---------------|-------------------------|-------------------------|----------------------------|---|
| | | | | | |
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(NO TEXT ON THIS PAGE)

**OFFICE OF THE MAYOR
BUREAU OF LABOR SERVICES
CONTRACT CERTIFICATE**

To be completed if the contract is less than \$1,000,000

Contractor: _____

Address: _____

Telephone Number: _____

Name and Title of Signatory: _____

Contracting Agency or Owner: _____

Project Number: _____

Proposed Contract Amount: _____

Description and Address of Proposed Contract: _____

Names of Subcontractors in the amount of 750,000 or more on this contract (if not known at this time, so state indicating that trades will be subcontracted):

I, (fill in name of person signing) _____,
hereby affirm that I am authorized by the above-named contractor to certify that said contractor's proposed contract with the above-named owner or city agency is less than \$1,000,000. This affirmation is made in accordance with Executive Order No. 50 (1980) as amended and its implementing regulations.

Date

Signature

WILLFUL OR FRAUDULENT FALSIFICATION OF ANY DATA OR INFORMATION SUBMITTED HERewith MAY RESULT IN THE TERMINATION OF ANY CONTRACT BETWEEN THE CITY AND THE BIDDER OR CONTRACTOR AND BAR THE BIDDER OR CONTRACTOR FROM PARTICIPATION IN ANY CITY CONTRACT FOR A PERIOD OF UP TO THREE YEARS. FURTHER, SUCH FALSIFICATION MAY RESULT IN CRIMINAL PROSECUTION.

(NO TEXT ON THIS PAGE)

Certificate of No Change Form

Mayor's Office of
Contract Services

- Please submit two completed forms. Copies will not be accepted.
- Please send both copies to the agency that requested it, unless you are advised to send it directly to the Mayor's Office of Contract Services (MOCS).
- A materially false statement willfully or fraudulently made in connection with this certification, and/or the failure to conduct appropriate due diligence in verifying the information that is the subject of this certification, may result in rendering the submitting entity non-responsible for the purpose of contract award.
- A materially false statement willfully or fraudulently made in connection with this certification may subject the person making the false statement to criminal charges

I, Anthony Carjiniello, being duly sworn, state that I have read
Enter Your Name

and understand all the items contained in the vendor questionnaire and any submission of change as identified on page one of this form and certify that as of this date, these items have not changed. I further certify that, to the best of my knowledge, information and belief, those answers are full, complete, and accurate; and that, to the best of my knowledge, information, and belief, those answers continue to be full, complete, and accurate.

In addition, I further certify on behalf of the submitting vendor that the information contained in the principal questionnaire(s) and any submission of change identified on page two of this form have not changed and have been verified and continue, to the best of my knowledge, to be full, complete and accurate.

I understand that the City of New York will rely on the information supplied in this certification as additional inducement to enter into a contract with the submitting entity.

Vendor Questionnaire *This section is required.*

This refers to the vendor questionnaire(s) submitted for the vendor doing business with the City.

Name of Submitting Entity: Bedford Corp Construction Inc.

Vendor's Address: 77 Bloomfield Ave. S.I. N.Y. 10314

Vendor's EIN or TIN: 80-0951159 Requesting Agency: NYC JDC

Are you submitting this Certification for the first time? (Please circle one) Yes No

Signature date on the last full vendor questionnaire signed for the submitting vendor: 10/7/2014

Signature date on change submission for the submitting vendor: _____

Principal Questionnaire

This section refers to the most recent principal questionnaire submissions.



| | Principal Name | Date of signature on last full Principal Questionnaire | Date(s) of signature on submission of change |
|---|-------------------|--|--|
| 1 | Anthony Capriello | 10/7/2014 | |
| 2 | Donald J. Banks | 10/7/2014 | |
| 3 | John Banks | 10/7/2014 | |
| 4 | Thomas Banks | 10/7/2014 | |
| 5 | | | |
| 6 | | | |

Check if additional changes were submitted and attach a document with the date of additional submissions.

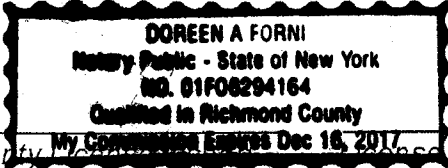
Certification This section is required.

This form must be signed and notarized. Please complete this twice. Copies will not be accepted.

Certified By:

Anthony Capriello
Name (Print)
President
Title
Bedford Corp Construction Inc.
Name of Submitting Entity
Anthony Capriello
Signature
11/17/2015
Date

Notarized By:

Doreen A. Fornì
Notary Public

County _____ Number _____

Sworn to before me on: 11/17/2015
Date

IRAN DIVESTMENT ACT COMPLIANCE RIDER

FOR NEW YORK CITY CONTRACTORS

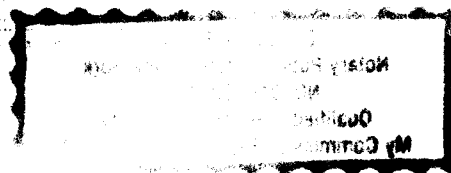
The Iran Divestment Act of 2012, effective as of April 12, 2012, is codified at State Finance Law ("SFL") §165-a and General Municipal Law ("GML") §103-g. The Iran Divestment Act, with certain exceptions, prohibits municipalities, including the City, from entering into contracts with persons engaged in investment activities in the energy sector of Iran. Pursuant to the terms set forth in SFL §165-a and GML §103-g, a person engages in investment activities in the energy sector of Iran if:

- (a) The person provides goods or services of twenty million dollars or more in the energy sector of Iran, including a person that provides oil or liquefied natural gas tankers, or products used to construct or maintain pipelines used to transport oil or liquefied natural gas, for the energy sector of Iran; or
- (b) The person is a financial institution that extends twenty million dollars or more in credit to another person, for forty-five days or more, if that person will use the credit to provide goods or services in the energy sector in Iran and is identified on a list created pursuant to paragraph (b) of subdivision three of Section 165-a of the State Finance Law and maintained by the Commissioner of the Office of General Services.

A bid or proposal shall not be considered for award nor shall any award be made where the bidder or proposer fails to submit a signed and verified bidder's certification.

Each bidder or proposer must certify that it is not on the list of entities engaged in investment activities in Iran created pursuant to paragraph (b) of subdivision 3 of Section 165-a of the State Finance Law. In any case where the bidder or proposer cannot certify that they are not on such list, the bidder or proposer shall so state and shall furnish with the bid or proposal a signed statement which sets forth in detail the reasons why such statement cannot be made. The City of New York may award a bid to a bidder who cannot make the certification on a case by case basis if:

- (1) The investment activities in Iran were made before the effective date of this section (i.e., April 12, 2012), the investment activities in Iran have not been expanded or renewed after the effective date of this section and the person has adopted, publicized and is implementing a formal plan to cease the investment activities in Iran and to refrain from engaging in any new investments in Iran; or
- (2) The City makes a determination that the goods or services are necessary for the City to perform its functions and that, absent such an exemption, the City would be unable to obtain the goods or services for which the contract is offered. Such determination shall be made in writing and shall be a public document.



**BIDDER'S CERTIFICATION OF COMPLIANCE WITH
IRAN DIVESTMENT ACT**

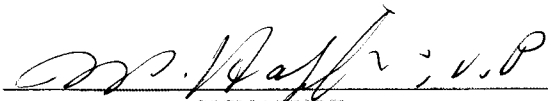
Pursuant to General Municipal Law §103-g, which generally prohibits the City from entering into contracts with persons engaged in investment activities in the energy sector of Iran, the bidder/proposer submits the following certification:

[Please Check One]

BIDDER'S CERTIFICATION

- By submission of this bid or proposal, each bidder/proposer and each person signing on behalf of any bidder/proposer certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief, that each bidder/proposer is not on the list created pursuant to paragraph (b) of subdivision 3 of Section 165-a of the State Finance Law.

- I am unable to certify that my name and the name of the bidder/proposer does not appear on the list created pursuant to paragraph (b) of subdivision 3 of Section 165-a of the State Finance Law. I have attached a signed statement setting forth in detail why I cannot so certify.



SIGNATURE

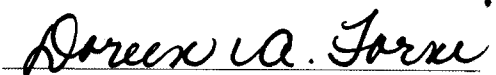
Mohammad Hajisatari

PRINTED NAME

V.P.

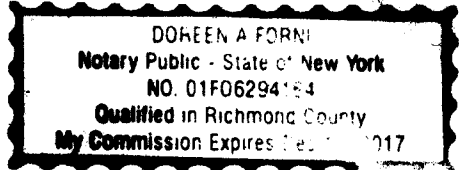
TITLE

Sworn to before me this
17th day of Nov, 2015



Notary Public

Dated:



Greg Bishop
Commissioner

215OF430

December 28, 2015

Mr. Eliecer Pertuz
Restani Construction Corporation
42-04 Berrian Blvd,
Astoria, NY 11105

Re: Department of Design & Construction; Pin No. 8502016HW0018C,
HW2CR16E; Milling existing asphaltic concrete wearing course; Boroughs of
Brooklyn, Queens, and Staten Island; Contract Value: \$11,170,000;
Continued Certificate of Approval.

Dear Mr. Pertuz:

Please be advised that Restani Construction Corporation has already received notice of its approval status for the three (3) year period indicated in the Department of Small Business Services/Division of Labor Services' (DLS) Certificate of Approval dated May 5, 2015 for File Number 215OF139.

As your organization continues to meet the equal employment opportunity requirements of the City of New York, DLS approves the awarding of the above-referenced contract. This approval does not extend the initial 3-year approval **(May 5, 2015 to May 4, 2018)** referred to above.

If you have any questions, please call Ms. Klaudia Dedaj at (212) 513-9272 or email her at KDedaj@sbs.nyc.gov.

Very truly yours,

Helen Wilson (signature)

Helen Wilson
Assistant Commissioner
Division of Labor Services

cc: Klaudia Dedaj
Victoria Ayo-Vaughan
File



**THE CITY OF NEW YORK
DEPARTMENT OF SMALL BUSINESS SERVICES
DIVISION OF LABOR SERVICES
CONTRACT COMPLIANCE UNIT
110 WILLIAMS STREET
NEW YORK, NEW YORK 10038
PHONE: (212) 513-6323
FAX: (212) 618-8879**

CONSTRUCTION

EMPLOYMENT

REPORT

(NO TEXT ON THIS PAGE)

GENERAL INFORMATION

- 1. Your contractual relationship in this contract is: Prime contractor Subcontractor
- 1a. Are MWBE goals attached to this project? Yes No
- 2. Please check one of the following if your firm would like information on how to certify with the City of New York as a:
 Minority Owned Business Enterprise Locally Based Business Enterprise
 Women Owned Business Enterprise Emerging Business Enterprise
 Disadvantaged Business Enterprise
- 2a. If you are certified as an **MBE, WBE, LBE, EBE** or **DBE**, what city/state agency are you certified with? _____ Are you DBE certified? Yes No
- 3. Please indicate if you would like assistance from SBS in identifying certified MWBEs for contracting opportunities: Yes No
- 4. Is this project subject to a project labor agreement? Yes No
- 5. Are you a Union contractor? Yes No If yes, please list which local(s) you affiliated with _____
- 6. Are you a Veteran owned company? Yes No

PART I: CONTRACTOR/SUBCONTRACTOR INFORMATION

- 7. 80-0951159 M. Hajisafaei@verizon.net
Employer Identification Number or Federal Tax I.D. Email Address
- 8. Bedford Coag Construction Inc.
Company Name
- 9. 77 Bloomsfield Ave, S.I. N.Y. 10314
Company Address and Zip Code
- 10. Anthony Gragnicello (718) 494-8600
Chief Operating Officer Telephone Number
- 11. Thomas J. Moran (718) 494-8600
Designated Equal Opportunity Compliance Officer Telephone Number
(If same as Item #10, write "same")
- 12. Same
Name of Prime Contractor and Contact Person
(If same as Item #8, write "same")

13. Number of employees in your company: 30

14. Contract information:

(a) NYC DDC
Contracting Agency (City Agency)

(b) \$ 44,444,444.44
Contract Amount

(c) 85015B0153
Procurement Identification Number (PIN)

(d) _____
Contract Registration Number (CT#)

(e) TBD
Projected Commencement Date

(f) TBD
Projected Completion Date

(g) Description and location of proposed contract:

COMISPH2B - Construction of storm and sanitary sewers and trunk water mains + appurtenances in Coney Island

15. Has your firm been reviewed by the Division of Labor Services (DLS) within the past 36 months and issued a Certificate of Approval? Yes ___ No

If yes, attach a copy of certificate.

16. Has DLS within the past month reviewed an Employment Report submission for your company and issued a Conditional Certificate of Approval? Yes ___ No

If yes, attach a copy of certificate.

NOTE: DLS WILL NOT ISSUE A CONTINUED CERTIFICATE OF APPROVAL IN CONNECTION WITH THIS CONTRACT UNLESS THE REQUIRED CORRECTIVE ACTIONS IN PRIOR CONDITIONAL CERTIFICATES OF APPROVAL HAVE BEEN TAKEN.

17. Has an Employment Report already been submitted for a different contract (not covered by this Employment Report) for which you have not yet received compliance certificate? Yes ___ No If yes,

Date submitted: _____
Agency to which submitted: _____
Name of Agency Person: _____
Contract No: _____
Telephone: _____

18. Has your company in the past 36 months been audited by the United States Department of Labor, Office of Federal Contract Compliance Programs (OFCCP)? Yes ___ No ___

If yes,

(a) Name and address of OFCCP office.

(b) Was a Certificate of Equal Employment Compliance issued within the past 36 months?
Yes ___ No

If yes, attach a copy of such certificate.

(c) Were any corrective actions required or agreed to? Yes ___ No ___

If yes, attach a copy of such requirements or agreements.

(d) Were any deficiencies found? Yes ___ No ___

If yes, attach a copy of such findings.

19. Is your company or its affiliates a member or members of an employers' trade association which is responsible for negotiating collective bargaining agreements (CBA) which affect construction site hiring? Yes ___ No

If yes, attach a list of such associations and all applicable CBA's.

PART II: DOCUMENTS REQUIRED

20. For the following policies or practices, attach the relevant documents (e.g., printed booklets, brochures, manuals, memoranda, etc.). If the policy(ies) are unwritten, attach a full explanation of the practices. See instructions.

- (a) Health benefit coverage/description(s) for all management, nonunion and union employees (whether company or union administered)
- (b) Disability, life, other insurance coverage/description
- (c) Employee Policy/Handbook
- (d) Personnel Policy/Manual
- (e) Supervisor's Policy/Manual
- (f) Pension plan or 401k coverage/description for all management, nonunion and union employees, whether company or union administered
- (g) Collective bargaining agreement(s).
- (h) Employment Application(s)
- (i) Employee evaluation policy/form(s).
- (j) Does your firm have medical and/or non-medical (i.e. education, military, personal, pregnancy, child care) leave policy?

21. To comply with the Immigration Reform and Control Act of 1986 when and of whom does your firm require the completion of an I-9 Form?

- | | | |
|--|---|--|
| (a) Prior to job offer | Yes | No <input checked="" type="checkbox"/> |
| (b) After a conditional job offer | Yes <input checked="" type="checkbox"/> | No |
| (c) After a job offer | Yes <input checked="" type="checkbox"/> | No |
| (d) Within the first three days on the job | Yes | No <input checked="" type="checkbox"/> |
| (e) To some applicants | Yes | No <input checked="" type="checkbox"/> |
| (f) To all applicants | Yes <input checked="" type="checkbox"/> | No |
| (g) To some employees | Yes | No <input checked="" type="checkbox"/> |
| (h) To all employees | Yes <input checked="" type="checkbox"/> | No |

22. Explain where and how completed I-9 Forms, with their supportive documentation, are maintained and made accessible.

At 77 Blomfield Ave S.I. N.Y. 10314

23. Does your firm or any of its collective bargaining agreements require job applicants to take a medical examination? Yes ___ No

If yes, is the medical examination given:

- | | | |
|-----------------------------------|---------|--------|
| (a) Prior to a job offer | Yes ___ | No ___ |
| (b) After a conditional job offer | Yes ___ | No ___ |
| (c) After a job offer | Yes ___ | No ___ |
| (d) To all applicants | Yes ___ | No ___ |
| (e) Only to some applicants | Yes ___ | No ___ |

If yes, list for which applicants below and attach copies of all medical examination or questionnaire forms and instructions utilized for these examinations.

24. Do you have a written equal employment opportunity (EEO) policy? Yes No ___

If yes, list the document(s) and page number(s) where these written policies are located.

See Attached.

25. Does the company have a current affirmative action plan(s) (AAP)

___ Minorities and Women

___ Individuals with handicaps

___ Other. Please specify _____

26. Does your firm or collective bargaining agreement(s) have an internal grievance procedure with respect to EEO complaints? Yes No ___

If yes, please attach a copy of this policy.

If no, attach a report detailing your firm's unwritten procedure for handling EEO complaints.

27. Has any employee, within the past three years, filed a complaint pursuant to an internal grievance procedure or with any official of your firm with respect to equal employment opportunity? Yes ___ No

If yes, attach an internal complaint log. See instructions.

28. Has your firm, within the past three years, been named as a defendant (or respondent) in any administrative or judicial action where the complainant (plaintiff) alleged violation of any anti-discrimination or affirmative action laws? Yes ___ No

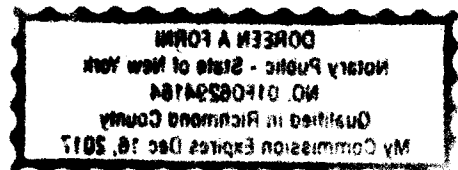
If yes, attach a log. See instructions.

29. Are there any jobs for which there are physical qualifications? Yes ___ No

If yes, list the job(s), submit a job description and state the reason(s) for the qualification(s).

30. Are there any jobs for which there are age, race, color, national origin, sex, creed, disability, marital status, sexual orientation, or citizenship qualifications? Yes ___ No

If yes, list the job(s), submit a job description and state the reason(s) for the qualification(s).



SIGNATURE PAGE

I, (print name of authorized official signing) Thomas J. Moore hereby certify that the information submitted herewith is true and complete to the best of my knowledge and belief and submitted with the understanding that compliance with New York City's equal employment requirements, as contained in Chapter 56 of the City Charter, Executive Order No. 50 (1980), as amended, and the implementing Rules and Regulations, is a contractual obligation. I also agree on behalf of the company to submit a certified copy of payroll records to the Division of Labor Services on a monthly basis.

Bedford Cary Construction Inc.

Contractor's Name

Thomas J. Moore

E.E.O.

Name of person who prepared this Employment Report

Title

Thomas J. Moore

E.E.O.

Name of official authorized to sign on behalf of the contractor

Title

718 494-8600

Telephone Number

[Signature]

Signature of authorized official

11/17/2015

Date

If contractors are found to be underutilizing minorities and females in any given trade based on Chapter 56 Section 3H, the Division of Labor Services reserves the right to request the contractor's workforce data and to implement an employment program.

Contractors who fail to comply with the above mentioned requirements or are found to be in noncompliance may be subject to the withholding of final payment.

Willful or fraudulent falsifications of any data or information submitted herewith may result in the termination of the contract between the City and the bidder or contractor and in disapproval of future contracts for a period of up to five years. Further, such falsification may result in civil and/or criminal prosecution.

To the extent permitted by law and consistent with the proper discharge of DLS' responsibilities under Charter Chapter 56 of the City Charter and Executive Order No. 50 (1980) and the implementing Rules and Regulations, all information provided by a contractor to DLS shall be confidential.

Only original signatures accepted.

Sworn to before me this 17th day of Nov 20 15

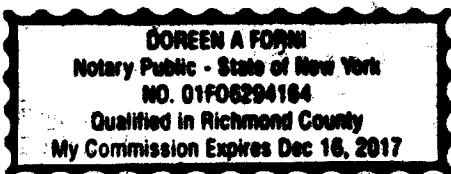
Doreen A. Forni

Notary Public

Authorized Signature

11/17/2015

Date



Bedford-Carp Construction Inc.

77 Bloomfield Ave.
Staten Island, NY 10314
Tel: (718) 494-8600
Fax: (718) 494-7666

November 17, 2015

EQUAL EMPLOYMENT OPPORTUNITY POLICY

Carp Construction Corp. is an equal employment opportunity employer and strives to comply with all applicable laws prohibiting discrimination based on race, color, creed, sex, age, national origin or ancestry, physical or mental disability, pregnancy, veteran status, marital status, alien age, citizenship, sexual orientation, as well as any other category protected by federal, state, or local laws. All such discrimination is unlawful and all persons involved in the operations of the Company are prohibited from engaging in this type of conduct.

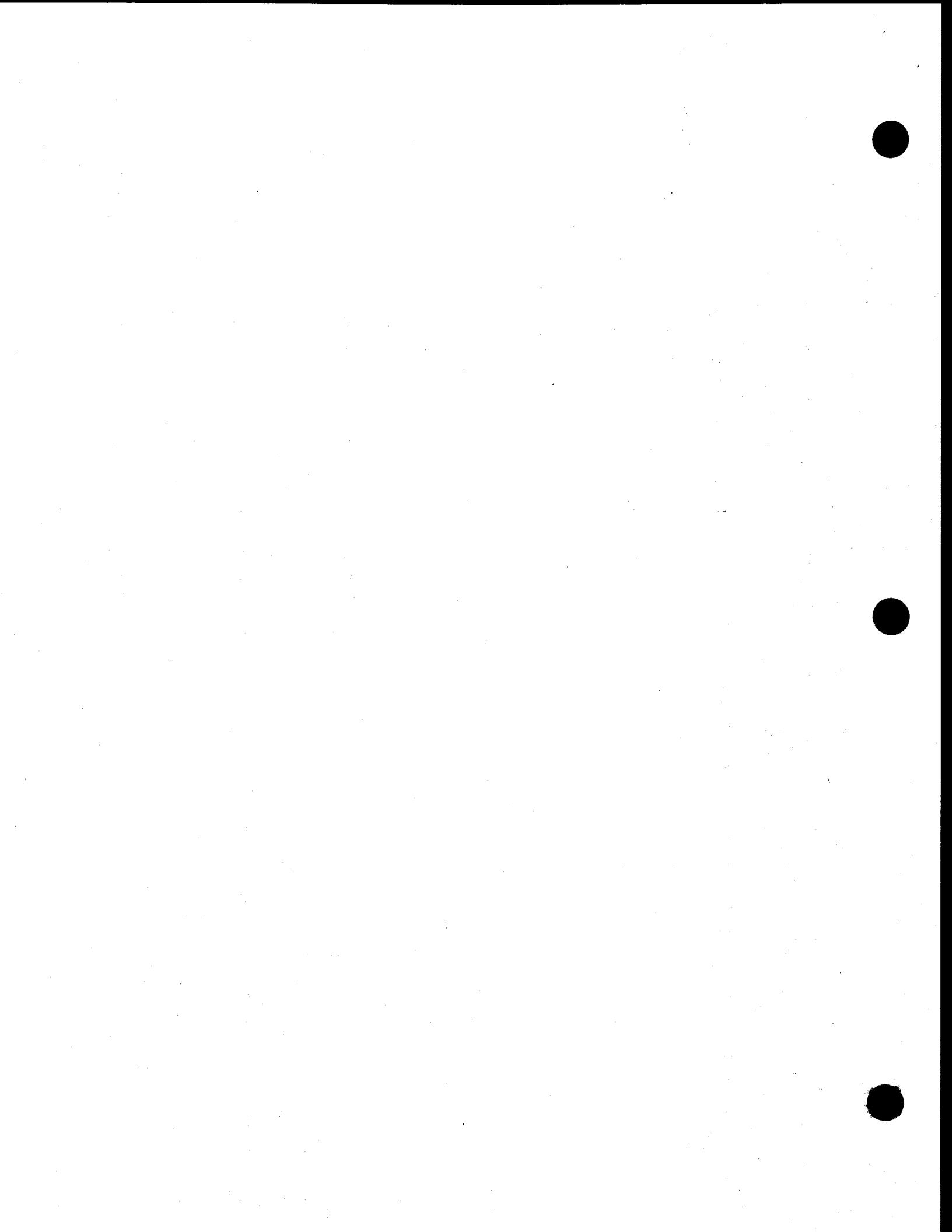
Employees should report any instance of unlawful discrimination of which you become aware to your supervisor, or any member of Senior Management, regardless of whether you or someone else is the subject of the discrimination. Detailed reports including names, descriptions, and actual events or statements made will greatly enhance the Company's ability to investigate. Any documents supporting the allegations should also be submitted. Based on your report, the Company will conduct an investigation. The Company prohibits any and all retaliation for submitting a report of unlawful discrimination and for cooperating in any investigation. Any supervisor or employee who retaliates against the accuser or those involved in the investigation will be disciplined, up to and including discharge from employment.

If the investigation determines that prohibited discrimination or other conduct that violates Company policy occurred, the Company will take disciplinary action, up to and including termination of employment, against those who engaged in the misconduct. The Company will also evaluate whether other employment practices should be added or modified in order to deter and prevent that conduct in the future. You will be informed of whatever action(s) the Company takes to resolve and remedy the situation.



TJ Moore
Controller





Summary of Work-Related Injuries and Illnesses

All establishments covered by Part 1904 must complete this Summary page, even if no injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete. Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the log. If you had no cases write "0."

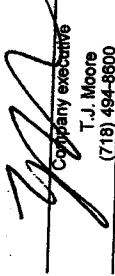
Employees former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR 1904.35, in OSHA's Recordkeeping rule, for further details on the access provisions for these forms.

| | | | |
|------------------------|--|--|--|
| Total number of deaths | Total number of cases with days away from work | Total number of cases with job transfer or restriction | Total number of other recordable cases |
| 0 (G) | 0 (H) | 0 (I) | 1 (J) |

| | |
|-------------------------------------|---|
| Total number of days away from work | Total number of days of job transfer or restriction |
| 2 (K) | 0 (L) |

| | | |
|------------------------|---------------------------|-------------------------|
| Total number of... (M) | (1) Injury | (4) Poisoning |
| | 0 | 0 |
| | (2) Skin Disorder | (5) Hearing Loss |
| | 0 | 0 |
| | (3) Respiratory Condition | (6) All Other Illnesses |
| | 0 | 0 |

Post this Summary page from February 1 to April 30 of the year following the year covered by the form. Public reporting burden for this collection of information is estimated to average 50 minutes per response, including time to review the instruction, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any aspects of this data collection, contact: US Department of Labor, OSHA Office of Statistics, Room N-3644, 200 Constitution Ave. NW, Washington, DC 20210. Do not send the completed forms to this office.

| | | | |
|---|---------------------------------|----------|--|
| Establishment information | | | |
| Your establishment name | Bedford Carp Construction, Inc. | | |
| Street | 77 Bloomfield Avenue | | |
| City | State | New York | Zip 10314 |
| Industry description (e.g., Manufacture of motor truck trailers) Heavy Construction | | | |
| Standard Industrial Classification (SIC), if known (e.g., SIC 3715) 1 6 2 9 | | | |
| OR North American Industrial Classification (NAICS), if known (e.g., 336212) | | | |
| Employment information | | | |
| Annual average number of employees | 35.5 | | |
| Total hours worked by all employees last year | 70,419.50 | | |
| Sign here | | | |
| I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete. | | | |
|  Company executive T.J. Moore (718) 494-9600 Phone | | | Controller Title 9/30/2015 Date |



Injuries and Illnesses Incident Report

Attention: This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes.



This *Injury and Illness Incident Report* is one of the related injury or illness has occurred. Together with the *Log of Work-Related Injuries and Illnesses* and the accompanying *Summary*, these forms help the employer and OSHA develop a picture of the extent and severity of work-related incidents.

Within 7 calendar days after you receive information that a recordable work-related injury or illness has occurred, you must fill out this form or an equivalent. Some state workers' compensation, insurance, or other reports may be acceptable substitutes. To be considered an equivalent form, any substitute must contain all the information

needed for use in this form.
According to Public Law 91-596 and 29 CFR 1904, OSHA's recordkeeping rule, you must keep this form on file for 5 years following the year to which it pertains.

If you need additional copies of this form, you may photocopy and use as many as you need.

Information about the employee

- 1) Full Name Daniel DeRoss
- 2) Street 182 Hope Avenue
- City Staten Island State NY Zip 10314
- 3) Date of birth 5/20/1994
- 4) Date hired 9/9/2013
- 5) Male Female

Information about the physician or other health care professional

- 6) Name of physician or other health care professional ER - Physicians of University Hospital

- 7) If treatment was given away from the worksite, where was it given?
Facility Physicians of University Hospital

Street One Edgewater Street - 8th Floor

City Staten Island State NY Zip 10305-4900

- 8) Was employee treated in an emergency room?
 Yes No

- 9) Was employee hospitalized overnight as an in-patient?
 Yes No

Completed by I.J. Moore

Title Controller

Phone (718) 494-8600 Date 9/30/2015

Information about the case

- 10) Case number from the Log 1 (Transfer the case number from the Log after you record the case.)
- 11) Date of injury or illness 3/24/2014
- 12) Time employee began work 7:00 AM AM/PM
- 13) Time of event 10:30 AM AM/PM Check if time cannot be determined

- 14) **What was the employee doing just before the incident occurred?** Describe the activity, as well as the tools, equipment or material the employee was using. Be specific. Examples: "climbing a ladder while carrying roofing materials"; "spraying chlorine from hand sprayer"; "daily computer key-entry."
Retrieving a wrench underneath a van.

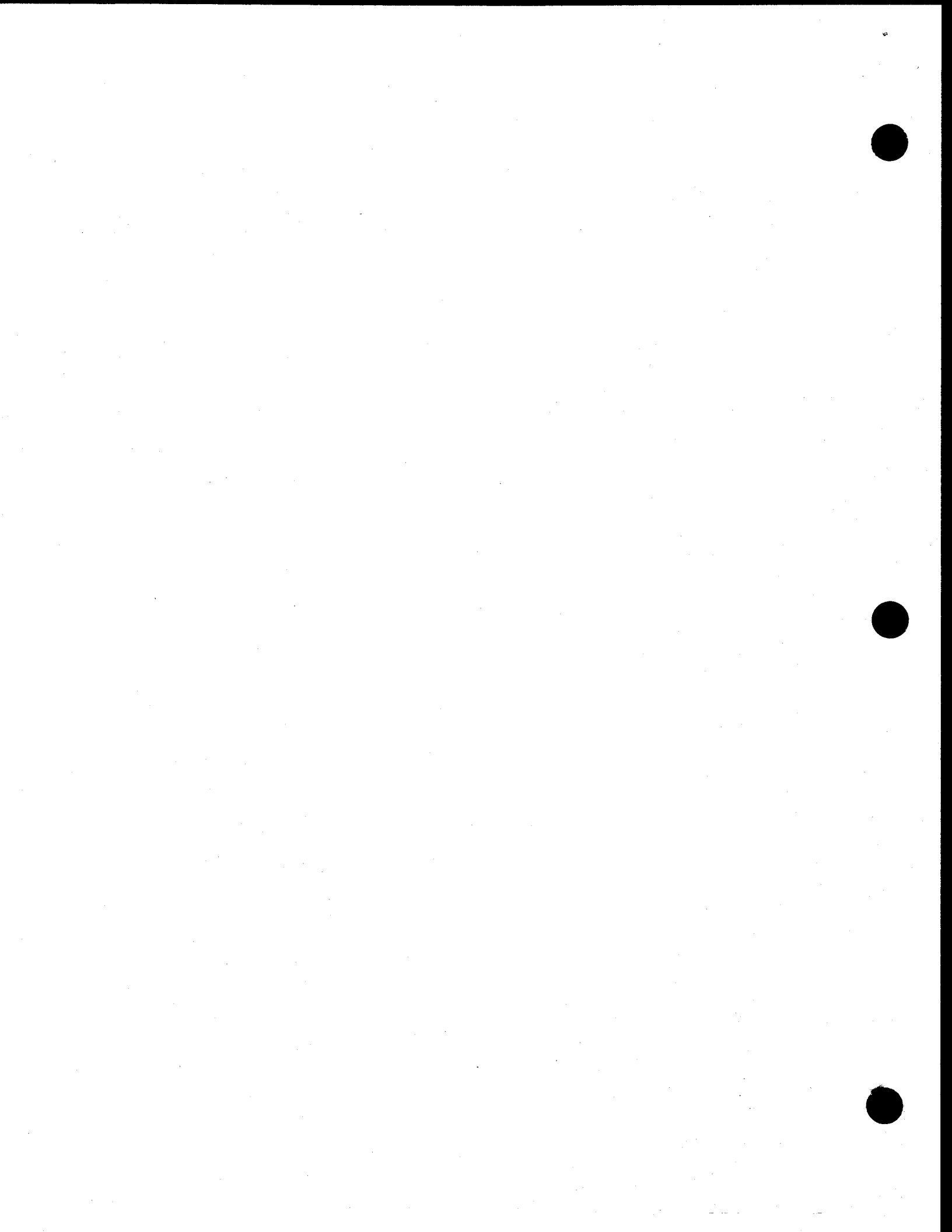
- 15) **What happened?** Tell us how the injury occurred. Examples: "When ladder slipped on wet floor, worker fell 20 feet"; "Worker was sprayed with chlorine when gasket broke during replacement"; "Worker developed soreness in wrist over time."
After retrieving the wrench, Mr. DeRoss came out from under the van before clearing undercarriage.

- 16) **What was the injury or illness?** Tell us the part of the body that was affected and how it was affected; be more specific than "hurt", "pain", or "sore." Examples: "concrete floor"; "chlorine"; "hand"; "carpal tunnel syndrome."
Cut to the back of the head.

- 17) **What object or substance directly harmed the employee?** Examples: "radial arm saw"; "chlorine"; "concrete floor"; "chlorine"; "Van."
Van.

- 18) **If the employee died, when did death occur?** Date of death N/A

Public reporting burden for this collection of information is estimated to average 22 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Persons are not required to respond to the collection of information unless it displays a current valid OMB control number. If you have any comments about this estimate or any other aspects of this data collection, including suggestions for reducing this burden, contact: US Department of Labor, OSHA, Office of Statistics, Room N-3644, 200 Constitution Ave, NW, Washington, DC 20210. Do not send the completed forms to this office.



Log of Work-Related Injuries and Illnesses

You must record information about every work-related death and about every work-related injury or illness that involves loss of consciousness, restricted work activity or job transfer, days away from work, or medical treatment beyond first aid. You must also record significant work-related injuries and illnesses that are diagnosed by a physician or licensed health care professional. You must also record work-related injuries and illnesses that meet any of the specific recording criteria listed in 29 CFR Part 1904.8 through 1904.12. Feel free to use two lines for a single case if you need to. You must complete an injury and illness incident report (OSHA Form 301) or equivalent form for each injury or illness recorded on this form. If you're not sure whether a case is recordable, call your local OSHA office for help.

Attention: This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes.

Identify the person

(A) Case no. (B) Employee's name

(C) Job title (e.g., Welder)

(D) Date of injury or onset of illness

(E) Where the event occurred (e.g., Loading dock north end)

(F) Describe the injury or illness, parts of body affected, and object/substance that directly injured or made person ill (e.g., Second degree burns on right forearm from acetylene torch)

Abbas
Uddah Behnam-Bakhsb

Engineer 07/05

Gamb's Island

Pipes fatally crushed Mr. Bakhsb

Describe the case

Classify the case
CHECK ONLY ONE box for each case based on the most serious outcome for that case:

Death (G)

Days away from work (H)

Away from work (K)

Injury (M)

Respiratory condition (N)

All other (O)

Enter the number of days the injured or ill worker was:

On job transfer or restriction (L)

Respiratory condition (P)

Respiratory condition (Q)

All other (R)

Remained at Work
Job transfer or restriction (S)

Other recordable cases (T)

Check the "injury" column or choose one type of illness

Skid loader (U)

Poisoning (V)

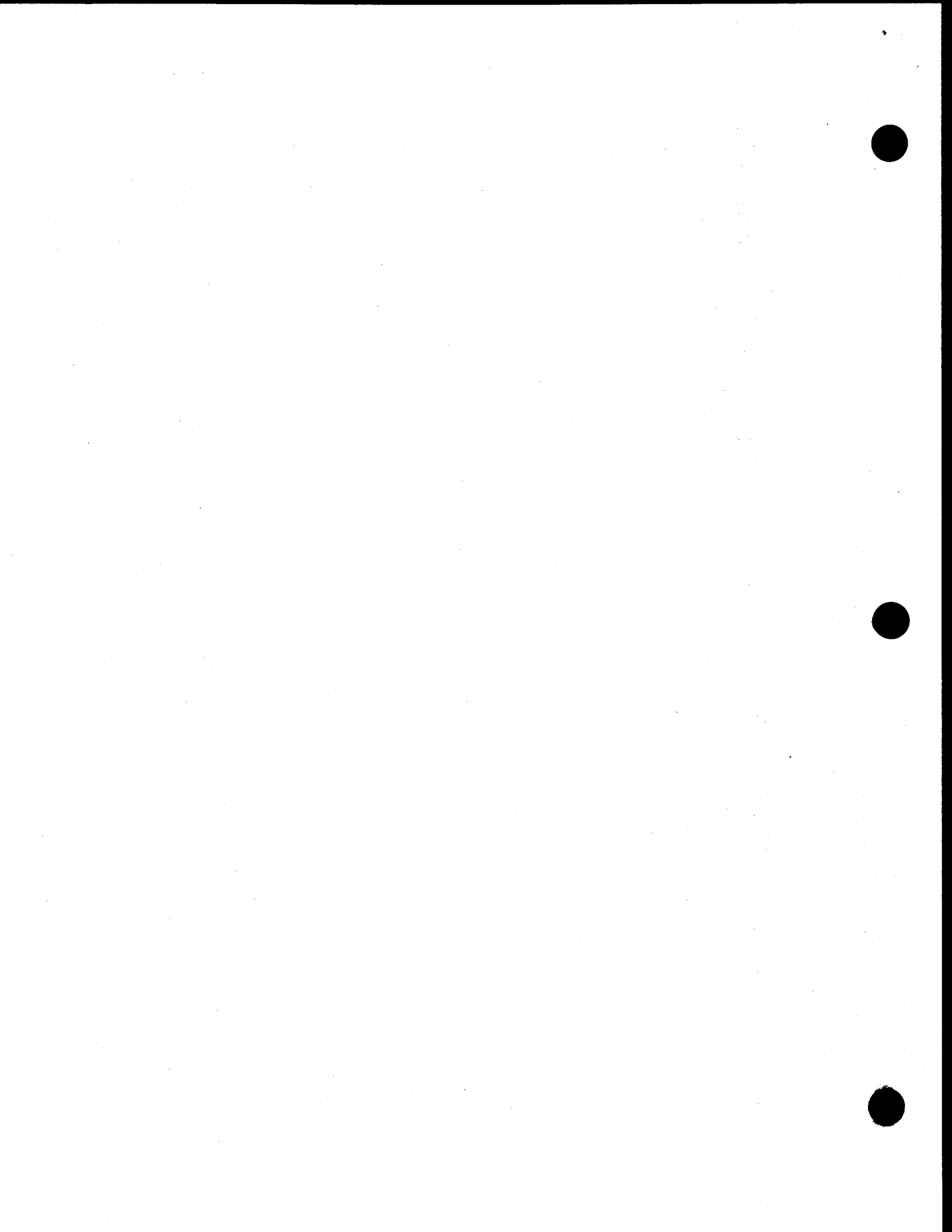
Hearing loss (W)

All other (X)

Public reporting burden for this collection of information is estimated to average 14 minutes per response, including time to review the instructions, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any other aspects of this data collection, contact US Department of Labor, OSHA Office of Statistical Analysis, Room N-3644, 200 Constitution Avenue, NW, Washington, DC 20210. Do not send the completed forms to this office.

Page totals

Be sure to transfer these totals to the Summary page (Form 3004) before you post it.



Injury and Illness Incident Report

This *Injury and Illness Incident Report* is one of the first forms you must fill out when a recordable work-related injury or illness has occurred. Together with the *Log of Work-Related Injuries and Illnesses* and the accompanying *Summary*, these forms help the employer and OSHA develop a picture of the extent and severity of work-related incidents.

Within 7 calendar days after you receive information that a recordable work-related injury or illness has occurred, you must fill out this form or an equivalent. Some state workers' compensation, insurance, or other reports may be acceptable substitutes. To be considered an equivalent form, any substitute must contain all the information asked for on this form.

According to Public Law 91-596 and 29 CFR 1904, OSHA's recordkeeping rule, you must keep this form on file for 5 years following the year to which it pertains.

If you need additional copies of this form, you may photocopy and use as many as you need.

Completed by TJ Moore
Title Controller
Phone 718,494-8600 Date 9/3/13

Information about the employee

- 1) Full name Abbas Behnam - Bakhsh
- 2) Street 31 Marwin Road
City Staten Island State NY ZIP 10309
- 3) Date of birth 04/21/58
- 4) Date hired 04/30/13
- 5) Male Female

Information about the physician or other health care professional

- 6) Name of physician or other health care professional n/a
- 7) If treatment was given away from the workplace, where was it given?
Facility n/a
Street _____
City _____ State _____ ZIP _____
- 8) Was employee treated in an emergency room?
 Yes No
- 9) Was employee hospitalized overnight as an in-patient?
 Yes No

Information about the case

- 10) Case number from the Log 106614 (Transfer the case number from the Log after you record the case.)
- 11) Date of injury or illness 07.05.13
- 12) Time employee began work 7:00 AM PM
- 13) Time of event _____ AM / PM Check if time cannot be determined

14) What was the employee doing just before the incident occurred? Describe the activity, as well as the tools, equipment, or material the employee was using. Be specific. Examples: "climbing a ladder while carrying roofing materials"; "spraying chlorine from hand sprayer"; "daily computer key-entry."
standing by a 950 wheel loader

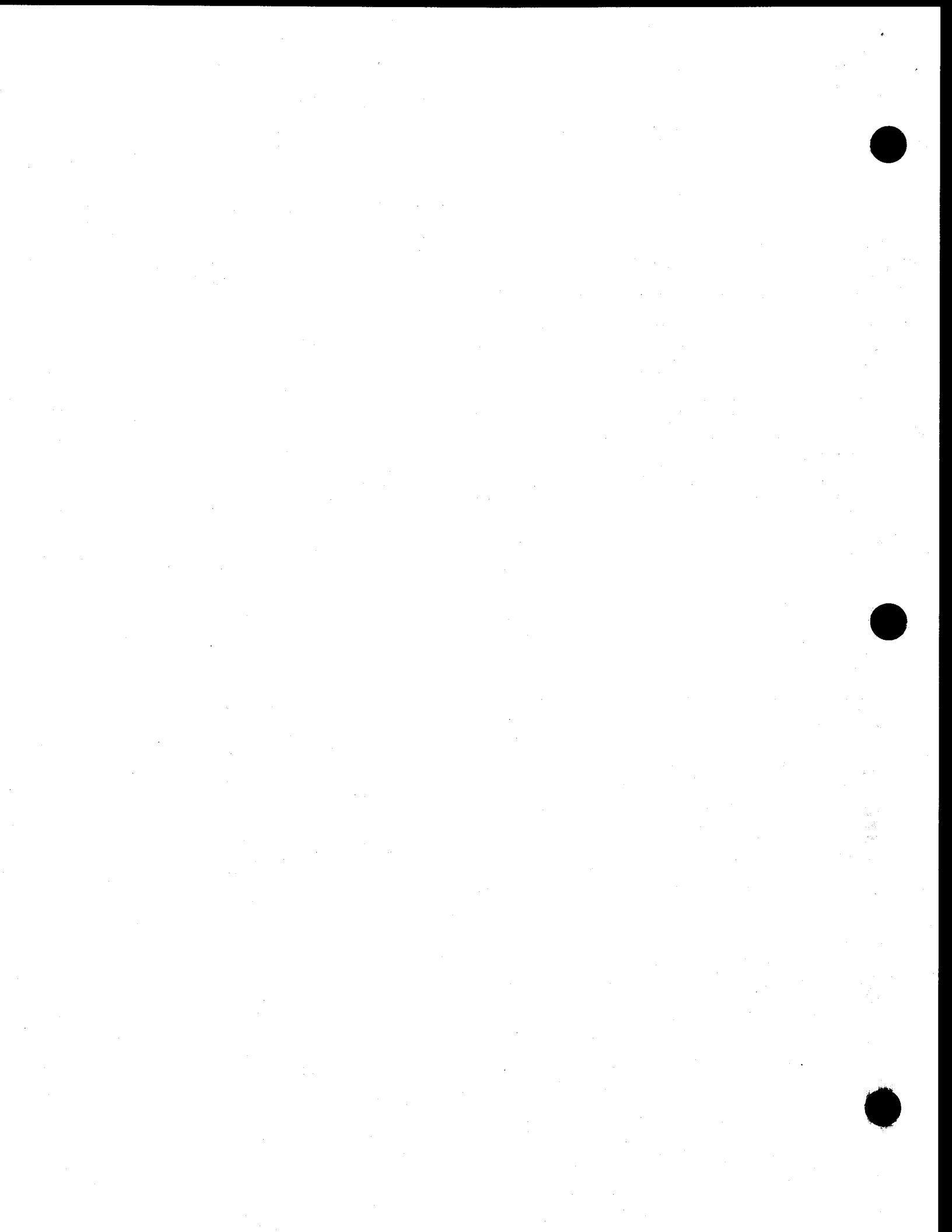
15) What happened? Tell us how the injury occurred. Examples: "When ladder slipped on wet floor, worker fell 20 feet"; "Worker was sprayed with chlorine when gasket broke during replacement"; "Worker developed soreness in wrist over time."
As pipes were removed from the truck, the straps that held the pipes together broke.

16) What was the injury or illness? Tell us the part of the body that was affected and how it was affected; be more specific than "hurt," "pain," or "sore." Examples: "strained back"; "chemical burn, hand"; "carpal tunnel syndrome."
The pipes fatally crushed Mr. Bakhsh who was standing below those pipes.

17) What object or substance directly harmed the employee? Examples: "concrete floor"; "chlorine"; "radial arm saw." If this question does not apply to the incident, leave it blank.
Pipe 15' x 24" weighing five to six thousand pounds.

18) If the employee died, when did death occur? Date of death 07.05.13





Summary of Work-Related Injuries and Illnesses



Year 2013

U.S. Department of Labor
Occupational Safety and Health Administration
Form approved OMB no. 1218-017

All establishments covered by Part 1904 must complete this Summary page, even if no work-related injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete and accurate before completing this summary.

Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the Log. If you had no cases, write "0".
Employees, former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR Part 1904.35. In OSHA's recordkeeping rule, for further details on the access provisions for these forms.

Number of Cases

| | | | |
|------------------------|--|--|--|
| Total number of deaths | Total number of cases with days away from work | Total number of cases with job transfer or restriction | Total number of other recordable cases |
| 0 | 0 | 0 | 0 |
| (G) | (H) | (I) | (J) |

Number of Days

| | |
|-------------------------------------|---|
| Total number of days away from work | Total number of days of job transfer or restriction |
| 0 | 0 |
| (K) | (L) |

Injury and Illness Types

| | | | |
|---------------------|----------------|------------------|-------------------------|
| Total number of ... | (4) Poisonings | (5) Hearing loss | (6) All other illnesses |
| 0 | 0 | 0 | 0 |
| (M) | (N) | (O) | (P) |

Post this Summary page from February 1 to April 30 of the year following the year covered by the form.

Public reporting burden for this collection of information is estimated to average 58 minutes per response, including time to review the instructions, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about this estimate or any other aspects of this data collection, contact US Department of Labor, OSHA Office of Statistical Analysis, Room N-3614, 200 Constitution Avenue, NW, Washington, DC 20210. Do not send the completed forms to this office.

Establishment Information

Your establishment name Bedford Carp Construction Corp
 Street 17 Bloomfield Ave
 City Staten Island State NY ZIP 10314
 Industry description (e.g., Manufacture of motor truck trailers)
Heavy Construction
 Standard Industrial Classification (SIC), if known (e.g., 3715)
1629
 OR
 North American Industrial Classification (NAICS), if known (e.g., 336212)

Employment Information (if you don't have these figures, see the Worksheet on the back of this page to estimate.)

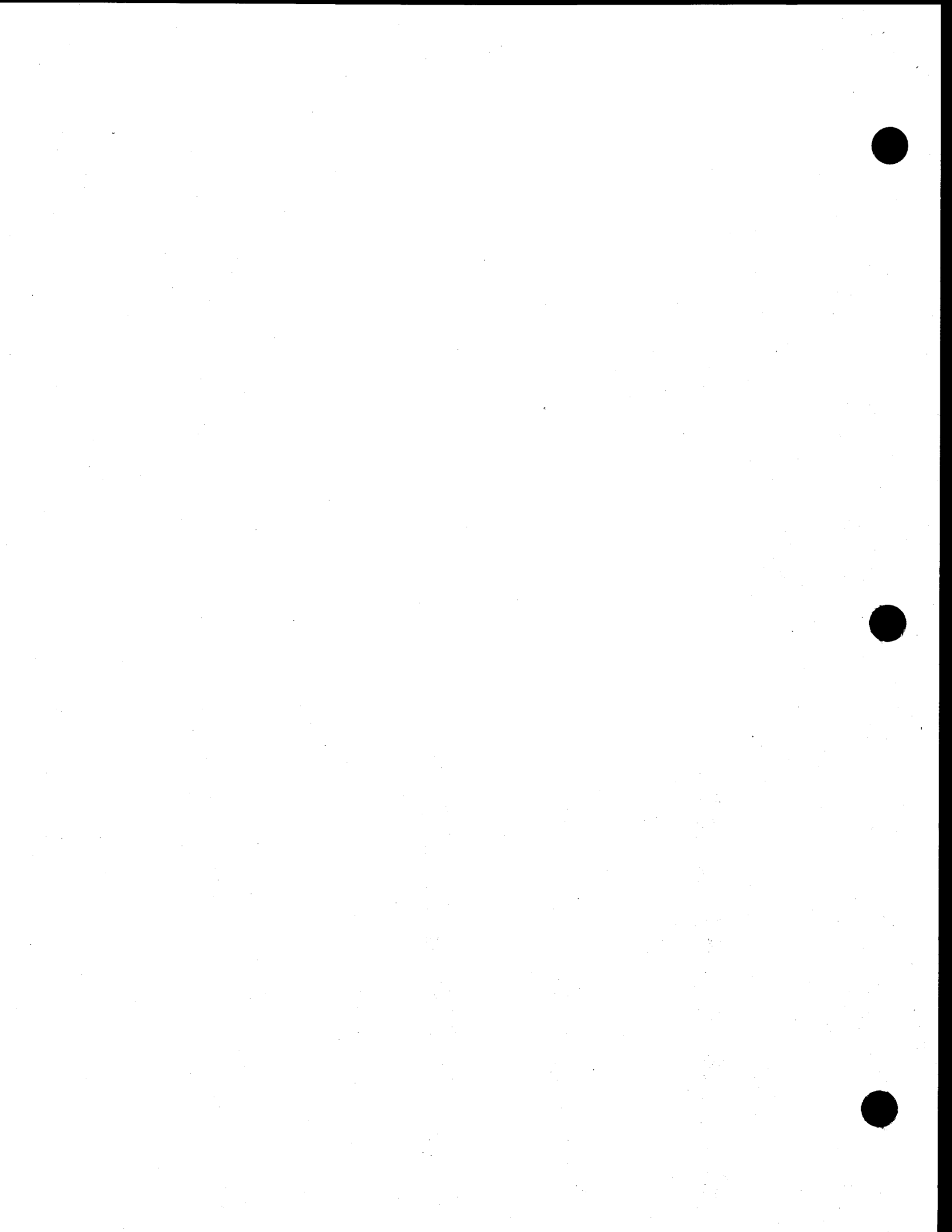
Annual average number of employees 21
 Total hours worked by all employees last year 829,597

Sign here

Knowingly falsifying this document may result in a fine.

I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.

[Signature] Controller
 Phone (718) 494-8100 Date 12/20/14



FORM A CONTRACT BID INFORMATION: USE OF SUBCONTRACTORS/TRADES

1. Do you plan to subcontractor work on this contract? Yes No
2. If yes, complete the chart below.

NOTE: All proposed subcontractors with a subcontract in excess of \$750,000 must complete an Employment Report for review and approval before the contract may be awarded and work commences.

| SUBCONTRACTOR'S NAME* | OWNERSHIP (ENTER APPROPRIATE CODE LETTERS BELOW) | WORK TO BE PERFORMED BY SUBCONTRACTOR | TRADE PROJECTED FOR USE BY SUBCONTRACTOR | PROJECTED DOLLAR VALUE OF SUBCONTRACT |
|---|--|---------------------------------------|--|---------------------------------------|
| Cape Mount Heavy Const. | | Conc work | | \$ 1,416,666.67 |
| FACO | | Piles | | \$ 1,050,000 |
| Asphalt Advanced Mill & Lay | | Asphalt | | \$ 1,250,000 |
| Aspen Landscaping | | Landscaping | | \$ 25,500 |
| Bus In Bus Out | | Pest Control | | \$ 77,000 |

*If subcontractor is presently unknown, please enter the trade (craft name).

OWNERSHIP CODES

- W: White
- B: Black
- H: Hispanic
- A: Asian
- N: Native American
- F: Female



FORM B: PROJECTED WORKFORCE

TRADE CLASSIFICATION CODES

- (J) Journeylevel Workers
- (H) Helper
- (A) Apprentice
- (TRN) Trainee
- (TOT) Total by Column

For each trade to be engaged by your company for this project, enter the projected workforce for Males and Females by trade classification on the charts below.

Trade:

Local 731 Laborers

Union Affiliation, if applicable

Total (Col. #1-10):

8

Total Minority, Male & Female (Col. #2,3,4,5,7,8,9, & 10):

4

Total Female (Col. #6-10):

4

MALES

| | (1) White Non Hisp. | | (2) Black Non Hisp. | | (3) Hisp. | | (4) Asian | | (5) Native Amer. | |
|-----|---------------------|-----------------|---------------------|-----------------|-----------|-------|-----------|--------------|------------------|--|
| | White Non Hisp. | Black Non Hisp. | White Non Hisp. | Black Non Hisp. | Hisp. | Asian | Asian | Native Amer. | Native Amer. | |
| J | 4 | | 4 | | | | | | | |
| H | | | | | | | | | | |
| A | | | | | | | | | | |
| TRN | | | | | | | | | | |
| TOT | 4 | | 4 | | | | | | | |

FEMALES

| | (6) White Non Hisp. | | (7) Black Non Hisp. | | (8) Hisp. | | (9) Asian | | (10) Native Amer. | |
|-----|---------------------|-----------------|---------------------|-----------------|-----------|-------|-----------|--------------|-------------------|--|
| | White Non Hisp. | Black Non Hisp. | White Non Hisp. | Black Non Hisp. | Hisp. | Asian | Asian | Native Amer. | Native Amer. | |
| J | | | | | | | | | | |
| H | | | | | | | | | | |
| A | | | | | | | | | | |
| TRN | | | | | | | | | | |
| TOT | | | | | | | | | | |

What are the recruitment sources for you projected hires (i.e., unions, government employment office, job tap center, community outreach)?



FORM B: PROJECTED WORKFORCE

TRADE CLASSIFICATION CODES

- (J) Journeylevel Workers
- (H) Helper
- (A) Apprentice
- (TRN) Trainee
- (TOT) Total by Column

For each trade to be engaged by your company for this project, enter the projected workforce for Males and Females by trade classification on the charts below.

Trade: 1556 Carpenters

Union Affiliation, if applicable _____

Total (Col. #1-10): 2

Total Minority, Male & Female (Col. #2,3,4,5,7,8,9, & 10): 0

Total Female (Col. #6 - 10): 0

MALES

| | (1) White Non Hisp. | | (2) Black Non Hisp. | | (3) Hisp. | | (4) Asian | | (5) Native Amer. | |
|-----|---------------------|--|---------------------|--|-----------|--|-----------|--|------------------|--|
| | | | | | | | | | | |
| J | 2 | | | | | | | | | |
| H | | | | | | | | | | |
| A | | | | | | | | | | |
| TRN | | | | | | | | | | |
| TOT | 2 | | | | | | | | | |

FEMALES

| | (6) White Non Hisp. | | (7) Black Non Hisp. | | (8) Hisp. | | (9) Asian | | (10) Native Amer. | |
|-----|---------------------|--|---------------------|--|-----------|--|-----------|--|-------------------|--|
| | | | | | | | | | | |
| J | | | | | | | | | | |
| H | | | | | | | | | | |
| A | | | | | | | | | | |
| TRN | | | | | | | | | | |
| TOT | | | | | | | | | | |

What are the recruitment sources for you projected hires (i.e., unions, government employment office, job tap center, community outreach)?



FORM B PROJECTED WORKFORCE

Trade: Local 15 Operating Engineers

Union Affiliation, if applicable _____

Total (Col. #1-10): 5

Total Minority, Male & Female (Col. #2,3,4,5,7,8,9, & 10): 4

Total Female (Col. #6-10): 1

| | MALES | | | | | FEMALES | | | | |
|-----|------------------------------|------------------------------|--------------|--------------|------------------------|------------------------------|------------------------------|--------------|--------------|-------------------------|
| | (1) White Non Hisp. | (2) Black Non Hisp. | (3) Hisp. | (4) Asian | (5) Native Amer. | (6) White Non Hisp. | (7) Black Non Hisp. | (8) Hisp. | (9) Asian | (10) Native Amer. |
| J | 5 | | | | | | | | | |
| H | | | | | | | | | | |
| A | | | | | | | | | | |
| TRN | | | | | | | | | | |
| TOT | 5 | | | | | | | | | |

What are the recruitment sources for you projected hires (i.e., unions, government employment office, job tap center, community outreach)?



FORM C: CURRENT WORKFORCE

TRADE CLASSIFICATION CODES

- (J) Journeylevel Workers
- (H) Helper
- (A) Apprentice
- (TRN) Trainee
- (TOT) Total by Column

For each trade currently engaged by your company for all work performed in New York City, enter the current workforce for Males and Females by trade classification on the charts below.

Trade: Local 731 Laborers

Union Affiliation, if applicable _____

Total (Col. #1-10): 8

Total Minority, Male & Female (Col. #2,3,4,5,7,8,9, & 10): 4

Total Female (Col. #6-10): 4

MALES

| | (1) White Non Hisp. | | (2) Black Non Hisp. | | (3) Hisp. | | (4) Asian | | (5) Native Amer. | |
|-----|---------------------|--|---------------------|--|-----------|--|-----------|--|------------------|---|
| | | | | | | | | | | |
| J | 4 | | 4 | | | | | | | |
| H | | | | | | | | | | |
| A | | | | | | | | | | |
| TRN | | | | | | | | | | |
| TOT | 4 | | | | | | | | | 4 |

FEMALES

| | (6) White Non Hisp. | | (7) Black Non Hisp. | | (8) Hisp. | | (9) Asian | | (10) Native Amer. | |
|-----|---------------------|--|---------------------|--|-----------|--|-----------|--|-------------------|--|
| | | | | | | | | | | |
| J | | | | | | | | | | |
| H | | | | | | | | | | |
| A | | | | | | | | | | |
| TRN | | | | | | | | | | |
| TOT | | | | | | | | | | |

What are the recruitment sources for you projected hires (i.e., unions, government employment office, job tap center, community outreach)?



FORM C: CURRENT WORKFORCE

TRADE CLASSIFICATION CODES

- (J) Journeylevel Workers
- (H) Helper
- (A) Apprentice
- (TRN) Trainee
- (TOT) Total by Column

For each trade currently engaged by your company for all work performed in New York City, enter the current workforce for Males and Females by trade classification on the charts below.

Trade: 1556 Carpenters

Union Affiliation, if applicable _____

Total (Col. #1-10):
27

Total Minority, Male & Female (Col. #2,3,4,5,7,8,9, & 10):
0

Total Female (Col. #6 - 10):
9

MALES

| (1) White Non Hisp. | (2) Black Non Hisp. | (3) Hisp. | (4) Asian | (5) Native Amer. |
|------------------------------|------------------------------|--------------|--------------|------------------------|
| 2 | | | | |
| | | | | |
| | | | | |
| | | | | |
| 2 | | | | |

FEMALES

| (6) White Non Hisp. | (7) Black Non Hisp. | (8) Hisp. | (9) Asian | (10) Native Amer. |
|------------------------------|------------------------------|--------------|--------------|-------------------------|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

What are the recruitment sources for you projected hires (i.e., unions, government employment office, job tap center, community outreach)?



FORM C: CURRENT WORKFORCE

Trade: Local 15 Operating Engineers

Union Affiliation, if applicable

Total (Col. #1-10): 5

Total Minority, Male & Female (Col. #2,3,4,5,7,8,9, & 10): 0

Total Female (Col. #6-10): 0

MALES

FEMALES

| | MALES | | | FEMALES | | | | | | |
|-----|------------------------------|------------------------------|--------------|-----------------|------------------------|------------------------------|------------------------------|--------------|-----------------|-------------------------|
| | (1) White Non Hisp. | (2) Black Non Hisp. | (3) Asian | (4) Hispanic | (5) Native Amer. | (6) White Non Hisp. | (7) Black Non Hisp. | (8) Asian | (9) Hispanic | (10) Native Amer. |
| J | 5 | | | | | | | | | |
| H | | | | | | | | | | |
| A | | | | | | | | | | |
| TRN | | | | | | | | | | |
| TOT | 5 | | | | | | | | | |

What are the recruitment sources for you projected hires (i.e., unions, government employment office, job tap center, community outreach)?







**Department of
Design and
Construction**

**INFRASTRUCTURE DIVISION
BUREAU OF DESIGN**

VOLUME 1 OF 3

PROJECT ID: CONISPH2B

FOR THE CONSTRUCTION OF STORM AND SANITARY SEWERS AND TRUNK WATER
MAINS AND APPURTENANCES IN CONEY ISLAND AREA PHASE 2B

INCLUDING WATER MAIN WORK

Together With All Work Incidental Thereto
BOROUGH OF BROOKLYN
CITY OF NEW YORK

Contractor

Dated _____, 20____



**Department of
Design and
Construction**

**THE CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
DIVISION OF INFRASTRUCTURE**

30-30 THOMSON AVENUE
LONG ISLAND CITY, NEW YORK 11101-3045
TELEPHONE (718) 391-1000
WEBSITE www.nyc.gov/buildnyc

VOLUME 2 OF 3

**INFORMATION FOR BIDDERS
CONTRACT
PERFORMANCE AND PAYMENT BONDS
PREVAILING WAGE SCHEDULE**

FOR FURNISHING ALL LABOR AND MATERIALS NECESSARY AND REQUIRED FOR:

PROJECT ID: CONISPH2B

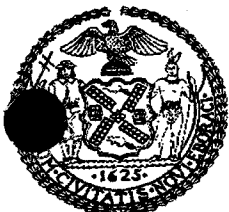
**FOR THE CONSTRUCTION OF STORM AND SANITARY SEWERS AND
TRUNK WATER MAINS AND APPURTENANCES IN CONEY ISLAND AREA
PHASE 2B**

INCLUDING WATER MAIN WORK

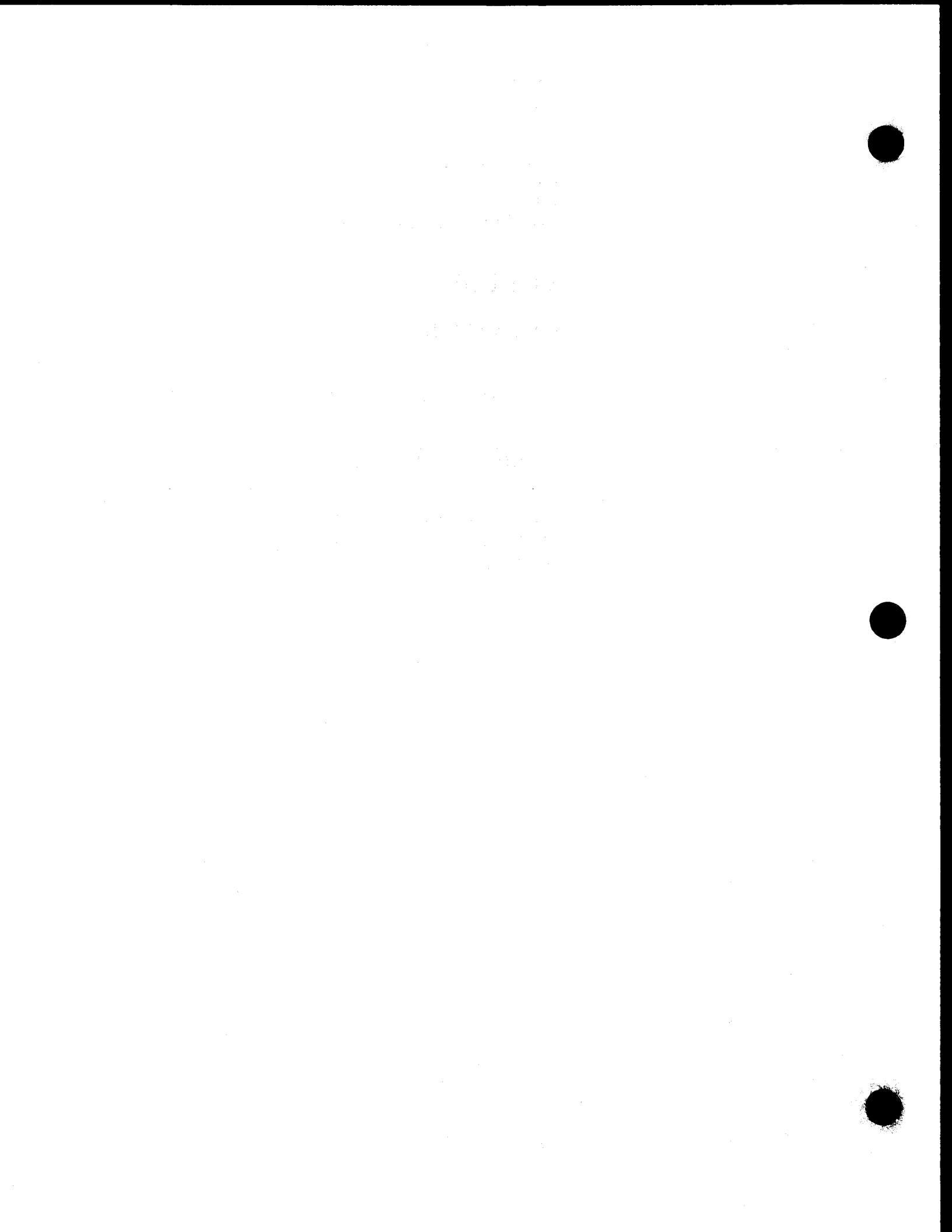
Together With All Work Incidental Thereto
**BOROUGH OF BROOKLYN
CITY OF NEW YORK**

FOR THE DEPARTMENT OF ENVIRONMENTAL PROTECTION
PREPARED BY
IN-HOUSE DESIGN

April 17, 2015



15-161





**Department of
Design and
Construction**

**THE CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
DIVISION OF INFRASTRUCTURE**

30-30 THOMSON AVENUE
LONG ISLAND CITY, NEW YORK 11101-3045
TELEPHONE (718) 391-1000
WEBSITE www.nyc.gov/buildnyc

VOLUME 2 OF 3

**INFORMATION FOR BIDDERS
CONTRACT
PERFORMANCE AND PAYMENT BONDS
PREVAILING WAGE SCHEDULE**

FOR FURNISHING ALL LABOR AND MATERIALS NECESSARY AND REQUIRED FOR:



FOR THE DEPARTMENT OF ENVIRONMENTAL PROTECTION
PREPARED BY
IN-HOUSE DESIGN

April 17, 2015

ARTICLE 26 EXTRA WORK

The percentage paid for overhead for Extra Work pursuant to Section 26.1.11 is increased from 10% to 12% and the calculation of Worker's Compensation insurance costs reimbursed for Extra Work has been clarified.

ARTICLE 37 LABOR LAW REQUIREMENTS
ARTICLE 38 PAYROLL REPORTS

The provisions governing Labor Law provisions have been tightened, including requirements the employee identification cards include a photo (unless the requirement is waived), a prohibition on cash payments to employees and subcontractors, and clear enforcement authority requirements.

ARTICLE 70 ELECTRONIC FILING

A provision is added to make mandatory the electronic filing of certain alteration permits with the Department of Buildings.

Other significant changes include the following:

ARTICLE 7 INDEMNIFICATION

Changes have been made to the indemnification provisions.

ARTICLE 14 FINAL ACCEPTANCE OF WORK
ARTICLE 44 SUBSTANTIAL COMPLETION PAYMENT

The Commissioner is no longer required to issue a substantial completion determination in addition to the already existing requirement that the Engineer issue a substantial completion determination and reach an agreement on a punch list of remaining work. Now, the Engineer, when issuing the punch list to the Contractor, must also include a proposed schedule for the completion of the punch list. The Contractor may propose an alternative schedule that is subject to the approval of the Engineer. If the Contractor fails to respond to the Engineer's proposed schedule, the Engineer's schedule is deemed accepted.

ARTICLE 15 LIQUIDATED DAMAGES

The contract is revised to match Schedule A to provide that liquidated damages are available only until substantial completion.

ARTICLE 17 SUBCONTRACTS

The requirements for prior approval of subcontractors, and for contractors to be responsible for the actions of their subcontractors, have been tightened. The requirement that the Contractor list subcontractors in the City's Payee Information Portal has been added; the provision was previously attached as a rider.

ARTICLE 19 SECURITY DEPOSIT

The provisions governing the return of bid deposits are clarified.

ARTICLE 20 PAYMENT GUARANTEE

The Payment Guaranty provisions, which apply when the City does not require the Contractor to obtain payment bonds, has been significantly revised to track the requirements of State Finance law 137.

ARTICLE 28 RECORDKEEPING FOR EXTRA OR DISPUTED WORK

The recordkeeping requirement that currently apply to payments for Time & Materials for extra work are expressly made applicable to regular work that is paid for on a T & M basis.

ARTICLE 35 EMPLOYEES

The whistleblower provisions of local law are added to the construction contract. They previously have been attached as a rider.

ARTICLE 38 PAYROLL REPORTS
ARTICLE 77 RECORDS RETENTION

Requirements that records be maintained for six years and directions on how such records must be made available.

ARTICLE 42 PARTIAL PAYMENTS

Increased flexibility has been provided for when contractors may submit invoices.

ARTICLE 62 TAX EXEMPTION

The provisions identifying the State tax exemption for municipalities are revised to more clearly describe State law.

(NO TEXT ON THIS PAGE)

CITY OF NEW YORK

**DEPARTMENT OF
DESIGN AND CONSTRUCTION
DIVISION OF INFRASTRUCTURES**

INFORMATION FOR BIDDERS

JUNE 2015

(NO TEXT ON THIS PAGE)

CITY OF NEW YORK CITY
DEPARTMENT OF DESIGN AND CONSTRUCTION
INFORMATION FOR BIDDERS

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INFORMATION FOR BIDDERS

1. Description and Location of Work

The description and location of the work for which bids are requested are specified in Attachment 1, "Bid Information". Attachment 1 is included as page A-1 of the Bid Booklet.

2. Time and Place for Receipt of Bids

Sealed bids shall be received on or before the date and hour specified in Attachment 1, at which time they will be publicly opened and read aloud in the presence of the Commissioner or his or her representative, and any bidders who may desire to be present.

3. Definitions

The definitions set forth in the Procurement Policy Board Rules shall apply to this Invitation For Bids.

4. Invitation For Bids and Contract Documents

(A) Except for titles, sub-titles, headings, running headlines, tables of contents and indices (all of which are printed herein merely for convenience) the following, except for such portions thereof as may be specifically excluded, shall be deemed to be part of the Contract and the Invitation for Bids.

- (1) All provisions required by law to be inserted in this Contract, whether actually inserted or not
- (2) The Contract Drawings and Specifications
- (3) The General Conditions, the General Requirements and the Special Conditions, if any
- (4) The Contract
- (5) The Information for Bidders; Request for Proposals; Notice of Solicitation and Proposal For Bids; Bid or Proposal, and, if used, the Bid Booklet
- (6) The Budget Director's Certificate; all Addenda issued prior to the receipt of the bids; the Notice of Award; Performance and Payment Bonds, if required; and the Notice to Proceed with the Work.

(B) For particulars as to this procurement, including quantity and quality of the purchase, extent of the work or labor to be performed, delivery and performance schedule, and any other special instructions, prospective bidders are referred to the Invitation For Bids Documents. A copy of such documents can be obtained at the location set forth in Attachment 1.

(C) Deposit for Copy of Invitation For Bids Documents: Prospective bidders may obtain a copy of the Invitation For Bids Documents by complying with the conditions set forth in the Notice of Solicitation. The deposit must be in the form of a check or money order made payable to the City of New York, and drawn upon a state or national bank or trust company, or a check of such bank or trust company signed by a duly authorized officer thereof.

(D) Return of Invitation For Bids Documents: All Invitation For Bids Documents must be returned to the Department upon request. If the bidder elects not to submit a bid thereunder, the

Invitation For Bids Documents shall be returned to the Department, along with a statement that no bid will be submitted.

(E) Return of Deposit: Such deposit will be returned within 30 days after the award of the contract or the rejection of all bids as set forth in the advertisement, provided the Invitation For Bids Documents are returned to the location specified in Attachment 1, in physical condition satisfactory to the Commissioner.

(F) Additional Copies: Additional copies of the Invitation For Bids Documents may be obtained, subject to the conditions set forth in the advertisement for bids.

5. Pre-Bid Conference

A pre-bid conference shall be held as set forth in Attachment 1. Nothing stated at the pre-bid conference shall change the terms or conditions of the Invitation For Bids Documents, unless a change is made by written amendment as provided in Section 9 below. Failure to attend a mandatory pre-bid conference shall constitute grounds for the rejection of the bid.

6. Agency Contact

Any questions or correspondence relating to this bid solicitation shall be addressed to the Agency Contact person specified in Attachment 1.

7. Bidder's Oath

(A) The bid shall be properly signed by an authorized representative of the bidder and the bid shall be verified by the written oath of the authorized representative who signed the bid, that the several matters stated and information furnished therein are in all aspects true.

(B) A materially false statement willfully or fraudulently made in connection with the bid or any of the forms completed and submitted with the bid may result in the termination of any Contract between the City and the Bidder. As a result, the Bidder may be barred from participating in future City contracts as well as be subject to possible criminal prosecution.

8. Examination and Viewing of Site

(A) Pre-Bidding (Investigation) Viewing of Site -Bidders must carefully view and examine the site of the proposed work, as well as its adjacent area, and seek other usual sources of information, for they will be conclusively presumed to have full knowledge of any and all conditions on, about or above the site relating to or affecting in any way the performance of the work to be done under the Contract which were or should have been indicated to a reasonably prudent bidder. To arrange a date for visiting the work site, bidders are to contact the Agency Contact person specified in Attachment 1.

(B) Should the contractor encounter during the progress of the work subsurface conditions at the site materially differing from any shown on the Contract Drawings or indicated in the Specifications or such subsurface conditions as could not reasonably have been anticipated by the contractor and were not anticipated by the City, which conditions will materially affect the cost of the work to be done under the

Contract, the attention of the Commissioner must be called immediately to such conditions before they are disturbed. The Commissioner shall thereupon promptly investigate the conditions. If he finds that they do so materially differ, or that they could not have been reasonably anticipated by the contractor and were not anticipated by the City, the Contract may be modified with his written approval.

9. Examination of Proposed Contract

(A) Request for Interpretation or Correction: Prospective bidders must examine the Contract Documents carefully and before bidding must request the Commissioner in writing for an interpretation or correction of every patent ambiguity, inconsistency or error therein which should have been discovered by a reasonably prudent bidder. Such interpretation or correction, as well as any additional contract provisions the Commissioner may decide to include, will be issued in writing by the Commissioner as an addendum to the Contract, which will be transmitted to each person recorded as having received a copy of the Contract Documents from the Department. Transmission of such addendum will be by mail, e-mail, facsimile or hand delivery. Such addendum will also be posted at the place where the Contract Documents are available for the inspection of prospective bidders. Upon transmission as provided for herein, such addendum shall become a part of the Contract Documents, and binding on all bidders, whether or not actual notice of such addendum is shown.

(B) Only Commissioner's Interpretation or Correction Binding: Only the written interpretation or correction so given by the Commissioner shall be binding, and prospective bidders are warned that no other officer, agent or employee of the City is authorized to give information concerning, or to explain or interpret, the Contract.

(C) Documents given to a subcontractor for the purpose of soliciting the subcontractor's bid shall include either a copy of the bid cover sheet or a separate information sheet setting forth the project name, the Contract number (if available), the contracting agency and the Project's location.

10. Form of Bid

Each bid must be submitted upon the prescribed form and must contain: a) the name, residence and place of business of the person or persons making the same; b) the names of all persons interested therein, and if no other person is so interested, such fact must be distinctly stated; c) a statement to the effect that it is made without any connection with any other person making a bid for the same purpose and that it is in all respects fair and without collusion or fraud; d) a statement that no Council member or other officer or employee or person whose salary is payable in whole or part from the City Treasury is directly or indirectly interested therein or in the supplies, materials or equipment and work or labor to which it relates, or in any portion of the profits thereof; e) a statement that the bidder is not in arrears to the City or to any agency upon a debt or contract or taxes, and is not a defaulter as surety or otherwise upon any obligation to the City to any agency thereof, except as set forth in the bid.

THE BID SHALL BE TYPEWRITTEN OR WRITTEN LEGIBLY IN INK. THE BID SHALL BE SIGNED IN INK. ERASURES OR ALTERATIONS SHALL BE INITIALED BY THE SIGNER IN INK. FAILURE TO CONFORM TO THE REQUIREMENTS OF THIS SECTION 10 SHALL RESULT IN THE REJECTION OF THE BID.

11. Irrevocability of Bid

The prices set forth in the bid cannot be revoked and shall be effective until the award of the Contract, unless the bid is withdrawn as provided for in Sections 15 and 18 below.

12. Acknowledgment of Amendments

The receipt of any amendment to the Contract Documents shall be acknowledged by the bidder in its bid submission.

13. Bid Samples and Descriptive Literature

Bid samples and descriptive literature shall not be submitted by the bidder, unless expressly requested elsewhere in the Contract or Contract Documents. Any unsolicited bid samples or descriptive literature which are submitted shall not be examined or tested and shall not be deemed to vary any of the provisions of this Contract.

14. Proprietary Information/Trade Secrets

(A) The bidder shall identify those portions of the bid which it deems to be confidential, proprietary information or trade secrets, and provide justification why such materials shall not be disclosed by the City. All such materials shall be clearly indicated by stamping the pages on which such information appears, at the top and bottom thereof with the word "Confidential". Such materials stamped "Confidential" must be easily separable from the non-confidential sections of the bid.

(B) All such materials so indicated shall be reviewed by the Agency and any decision not to honor a request for confidentiality shall be communicated in writing to the bidder. For those bids which are unsuccessful, all such confidential materials shall be returned to the bidder. Prices, makes and model or catalog numbers of the items offered, deliveries, and terms of payment shall be publicly available after bid opening, regardless of any designation of confidentiality made by the bidder.

15. Pre-Opening Modification or Withdrawal of Bids

Bids may be modified or withdrawn by written notice received in the office designated in Attachment 1, before the time and date set for the bid opening. If a bid is withdrawn in accordance with this Section, the bid security, if any, shall be returned to the bidder.

16. Bid Evaluation and Award

In accordance with the New York City Charter, the Procurement Policy Board Rules and the terms and conditions of this Invitation For Bids, this Contract shall be awarded, if at all, to the responsible bidder whose bid meets the requirements and evaluation criteria set forth in the Invitation For Bids, and whose bid price is either the most favorable bid price or, if the Invitation For Bids so states, the most favorable evaluated bid price. A bid may not be evaluated for any requirement or criterion that is not disclosed in the Invitation For Bids.

Restriction: No negotiations with any bidder shall be allowed to take place except under the circumstances and in the manner set forth in Section 21. Nothing in this Section shall be deemed to permit a contract award to a bidder submitting a higher quality item than that designated in the Invitation For Bids, if that bid is not also the most favorable bid.

17. Late Bids, Late Withdrawals and Late Modifications

Any bid received at the place designated in the solicitation after the time and date set for receipt of bids is late and shall not be considered. Any request for withdrawal or modification received at the place designated in the solicitation after the time and date set for receipt of bids is late and shall not be considered. The exception to this provision is that a late modification of a successful bid that makes the bid terms more favorable to the City shall be considered at any time it is received.

18. Withdrawal of Bids.

Except as provided for in Section 15, above, a bidder may not withdraw its bid before the expiration of forty-five (45) days after the date of the opening of bids; thereafter, a bidder may withdraw its bid only in writing and in advance of an actual award. If within sixty (60) days after the execution of the Contract, the Commissioner fails to fix the date for commencement of work by written notice to the bidder, the bidder, at his option, may ask to be relieved of his obligation to perform the work called for by written notice to the Commissioner. If such notice is given to the Commissioner, and the request to withdraw is granted, the bidder waives all claims in connection with this Contract.

19. Mistake in Bids

(A) Mistake Discovered Before Bid Opening: A bidder may correct mistakes discovered before the time and date set for bid opening by withdrawing or correcting the bid as provided in Section 15 above.

(B) Mistakes Discovered Before Award

(1) In accordance with General Municipal Law (Section 103, subdivision 11), where a unilateral error or mistake is discovered in a bid, such bid may be withdrawn upon written approval of the Agency Chief Contracting Officer if the following conditions are met:

- (a) The mistake is known or made known to the agency prior to the awarding of the Contract or within 3 days after the opening of the bid, whichever period is shorter; and
- (b) The price bid was based upon an error of such magnitude that enforcement would be unconscionable; and
- (c) The bid was submitted in good faith and the bidder submits credible evidence that the mistake was a clerical error as opposed to a judgment error; and
- (d) The error in the bid is actually due to an unintentional and substantial arithmetic error or an unintentional omission of a substantial quantity of work, labor, material or services made directly in the compilation of the bid, which unintentional arithmetic error or unintentional omission can be clearly shown by objective evidence drawn from inspection of the original work paper, documents, or materials used in the preparation of the bid sought to be withdrawn; and
- (e) It is possible to place the agency in the same position as existed prior to the bid.

(2) Unless otherwise required by law, the sole remedy for a bid mistake in accordance with this Article shall be withdrawal of the bid, and the return of the bid bond, or other security, if any, to the bidder. Thereafter, the agency may, in its discretion, award the Contract to the next lowest bidder or rebid the Contract. Any amendment to or reformation of a bid or a Contract to rectify such an error or mistake

therein is strictly prohibited.

(3) If the mistake and the intended correct bid are clearly evident on the face of the bid document, the bid shall be corrected to the intended correct bid and may not be withdrawn. Examples of mistakes that may be corrected are typographical errors, errors in extending unit prices, transposition errors and arithmetical errors.

20. Low Tie Bids

(A) When two or more low responsive bids from responsible bidders are identical in price, meeting all the requirements and criteria set forth in the Invitation For Bids, the Agency Chief Contracting Officer will break the tie in the following manner and order of priority:

- (1) Award to a certified New York City small, minority or woman-owned business entity bidder;
- (2) Award to a New York City bidder;
- (3) Award to a certified New York State small, minority or woman-owned business bidder;
- (4) Award to a New York State bidder.

(B) If two or more bidders still remain equally eligible after application of paragraph (A) above, award shall be made by a drawing by lot limited to those bidders. The bidders involved shall be invited to attend the drawing. A witness shall be present to verify the drawing and shall certify the results on the bid tabulation sheet.

21. Rejection of Bids

(A) Rejection of Individual Bids: The Agency may reject a bid if:

- (1) The bidder fails to furnish any of the information required pursuant to Section 24 or 28 hereof; or if
- (2) The bidder is determined to be not responsible pursuant to the Procurement Policy Board Rules; or if
- (3) The bid is determined to be non-responsive pursuant to the Procurement Policy Board Rules; or if
- (4) The bid, in the opinion of the Agency Chief Contracting Officer, contains unbalanced bid prices and is thus non-responsive, unless the bidder can show that the prices are not unbalanced for the probable required quantity of items, or if the imbalance is corrected pursuant to Section 15.

(B) Rejection of All Bids: The Agency, upon written approval by the Agency Chief Contracting Officer, may reject all bids and may elect to resolicit bids if in its sole opinion it shall deem it in the best interest of the City so to do.

(C) Rejection of All Bids and Negotiation With All Responsible Bidders: The Agency Head may determine that it is appropriate to cancel the Invitation For Bids after bid opening and before award and to complete the acquisition by negotiation. This determination shall be based on one of the following reasons:

- (1) All otherwise acceptable bids received are at unreasonable prices, or only one bid is received and the Agency Chief Contracting Officer cannot determine the reasonableness of the bid price, or no responsive bid has been received from a responsible bidder; or
- (2) In the judgment of the Agency Chief Contracting Officer, the bids were not independently arrived at in open competition, were collusive, or were submitted in bad faith.

(D) When the Agency has determined that the Invitation for Bids is to be canceled and that use of negotiation is appropriate to complete the acquisition, the contracting officer may negotiate and award the Contract without issuing a new solicitation, subject to the following conditions:

- (1) prior notice of the intention to negotiate and a reasonable opportunity to negotiate have been given by the contracting officer to each responsible bidder that submitted a bid in response to the Invitation for Bids;
- (2) the negotiated price is the lowest negotiated price offered by a responsible bidder; and
- (3) the negotiated price is lower than the lowest rejected bid price of a responsible bidder that submitted a bid in response to the Invitation for Bids.

22. Right to Appeal Determinations of Non-Responsiveness or Non-Responsibility and Right to Protest Solicitations and Award

The bidder has the right to appeal a determination of non-responsiveness or non-responsibility and has the right to protest a solicitation and award. For further information concerning these rights, the bidder is directed to the Procurement Policy Board Rules.

23. Affirmative Action and Equal Employment Opportunity

This Invitation For Bids is subject to applicable provisions of Federal, State and Local Laws and executive orders requiring affirmative action and equal employment opportunity.

24. VENDEX Questionnaires

(A) Requirement: Pursuant to Administrative Code Section 6-116.2 and the PPB Rules, bidders may be obligated to complete and submit VENDEX Questionnaires. Generally, if this bid is \$100,000 or more, or if this bid when added to the sum total of all contracts, concessions and franchises the bidder has received from the City and any subcontracts received from City contractors over the past twelve months, equals or exceeds \$100,000, Vendex Questionnaires must be completed. If required, Vendex Questionnaires must be completed and submitted before any award of contract may be made or before approval is given for a proposed subcontractor. Non-compliance with these submission requirements may result in the disqualification of the bid, disapproval of a subcontractor, subsequent withdrawal of approval for the use of an approved subcontractor, or the cancellation of the contract after its award.

(B) Submission: Vendex Questionnaires must be submitted directly to the Mayor's Office of Contract Services, ATTN: Vendex, 253 Broadway, 9th Floor, New York, New York 10007. In addition, the bidder must submit a Confirmation of Vendex Compliance to the agency. A form for this confirmation is set forth in the Bid Booklet.

(C) Obtaining Forms: Vendex Questionnaires, as well as detailed instructions, may be obtained at www.nyc.gov/vendex. The bidder may also obtain Vendex forms and instructions by contacting the

Agency Chief Contracting Office or the contract person for this contract.

25. Complaints About the Bid Process

The New York City Comptroller is charged with the audit of contracts in New York City. Any vendor who believes that there has been unfairness, favoritism or impropriety in the bid process should inform the Comptroller, Office of Contract Administration, One Centre Street, Room 835, New York, New York; telephone number (212)669-2797.

26. Bid, Performance and Payment Security

(A) Bid Security: Each bid must be accompanied by bid security in an amount and type specified in Attachment 1 (page A-1 of the Bid Booklet). The bid security shall assure the City of New York of the adherence of the bidder to its proposal, the execution of the Contract, and the furnishing of Performance and Payment Bonds by the bidder, if required in Attachment 1. Bid security shall be returned to the bidder as follows:

- (1) Within ten (10) days after the bid opening, the Comptroller will be notified to return the deposits of all but the three (3) lowest bidders. Within five (5) days after the award, the Comptroller will be notified to return the deposits of the remaining two unsuccessful bidders.
- (2) Within five (5) days after the execution of the Contract and acceptance of the Contractor's bonds, the Comptroller will be notified to return the bid security of the successful bidder or, if performance and payment bonds are not required, only after the sum retained under Article 21 of the Contract equals the amount of the bid security.
- (3) Where all bids are rejected, the Comptroller will be notified to return the deposit of the three (3) lowest bidders at the time of rejection.

(B) Performance and Payment Security: Performance and Payment Security must be provided in an amount and type specified in Attachment 1 (page A-1 of the Bid Booklet). The performance and payment security shall be delivered by the contractor prior to or at the time of execution of the Contract. If a contractor fails to deliver the required performance and payment security, its bid security shall be enforced, and an award of Contract may be made to the next lowest responsible and responsive bidder, or the contract may be rebid.

(C) Acceptable Types of Security: Acceptable types of security for bids, performance, and payment shall be limited to the following:

- (1) a one-time bond in a form satisfactory to the City;
- (2) a bank certified check or money order;
- (3) obligations of the City of New York; or
- (4) other financial instruments as determined by the Office of Construction in consultation with the Comptroller.

Whenever the successful bidder deposits obligations of the City of New York as performance and payment security, the Comptroller may sell and use the proceeds thereof for any purpose for which the principal or surety on such bond would be liable under the terms of the Contract. If the money is deposited with the Comptroller, the successful bidder shall not be entitled to receive interest on such money from the City.

(D) Form of Bonds: Security provided in the form of bonds must be prepared on the form of bonds authorized by the City of New York. Forms for bid, performance, and payment bonds are included in the Invitation for Bids Documents. Such bonds must have as surety thereunder such surety company or companies as are: (1) approved by the City of New York; (2) authorized to do business in the State of New York, and (3) approved by the Department of the Treasury of the United States. Premiums for any required bonds must be included in the base bid.

The bidder is advised that submission of a bid bond where the surety on such bond fails to meet the criteria set forth herein, shall result in the rejection of the bid as non-responsive.

The Department of the Treasury of the United States advises that information concerning approved surety companies may be obtained as follows: (1) from the Government Printing Office at 202-512-1800; (2) through the Internet at <http://www.fms.treas.gov/c570/index.html>, and (3) through a computerized public bulletin board, which can be accessed by using your computer modem and dialing 202-874-6887.

(E) Power of Attorney: Attorneys in fact who sign bid, performance, or payment bonds must file with each bond a certified copy of their power of attorney to sign said bonds.

27. Failure to Execute Contract

In the event of failure of the successful bidder to execute the Contract and furnish the required security within ten (10) days after notice of the award of the Contract, the deposit of the successful bidder or so much thereof as shall be applicable to the amount of the award made shall be retained by the City, and the successful bidder shall be liable for and hereby agrees to pay on demand the difference between the price bid and the price for which such Contract shall be subsequently awarded, including the cost of any required reletting and less the amount of such deposit. No plea of mistake in such accepted bid shall be available to the bidder for the recovery of the deposit or as a defense to any action based upon such accepted bid. Further, should the bidder's failure to comply with this Section cause any funding agency, body or group (Federal, State, City, Public, Private, etc.) to terminate, cancel or reduce the funding on this project, the bidder in such event shall be liable also to the City for the amount of actual funding withdrawn by such agency on this project, less the amount of the forfeited deposit.

28. Bidder Responsibilities and Qualifications

(A) Bidders must include with their bids all information necessary for a determination of bidder responsibility, as set forth in the Specifications.

(B) The Agency may require any bidder or prospective bidder to furnish all books of account, records, vouchers, statements or other information concerning the bidder's financial status for examination as may be required by the Agency to ascertain the bidder's responsibility and capability to perform the Contract. If required, a bidder must also submit a sworn statement setting forth such information as the Agency may require concerning present and proposed plant and equipment, the personnel and qualifications of his working organizations, prior experience and performance record.

(C) Oral Examination on Qualifications: In addition thereto, and when directed by the Agency, the bidder, or a responsible officer, agent or employee of the bidder, must submit to an oral examination to be conducted by the Agency in relation to his proposed tentative plan and schedule of

operations, and such other matters as the Agency may deem necessary in order to determine the bidder's ability and responsibility to perform the work in accordance with the Contract. Each person so examined must sign and verify a stenographic transcript of such examination noting thereon such corrections as such person may desire to make.

(D) If the bidder fails or refuses to supply any of the documents or information set forth in paragraph (B) hereof or fails to comply with any of the requirements thereof, the Agency may reject the bid.

29. Employment Report

In accordance with Executive Order No. 50 (1980) as modified by Executive Order 108 (1986), the filing of a completed Employment Report (ER) is a requirement of doing business with the City of New York for construction contractors with contracts of \$1,000,000 or more and subcontractors with construction subcontracts of \$750,000 or more. The required forms and information are included in the Bid Booklet.

30. Labor Law Requirements

(A) General: The successful bidder will be required to comply strictly with all Federal, State and local labor laws and regulations.

(B) New York State Labor Law: This Contract is subject to New York State Labor Law Section 220, which requires that construction workers on the site be paid prevailing wages and supplements. The Contractor is reminded that all wage provisions of this Contract will be enforced strictly and failure to comply will be considered when evaluating performance. Noncompliance may result in the contractor being debarred by the City from future contracts. Complaints filed with the Comptroller may result in decisions which may debar a contractor from bidding contracts with any state governmental entity and other political subdivisions.

(C) Records: The Contractor is expected to submit accurate payroll reports and other required documents and verify attendance and job classifications being utilized in compliance with the law, Contract provisions and agency procedures.

31. Insurance

(A) Bidders are advised that the insurance requirements contained herein are regarded as material terms of the Contract. As required by Article 22 of the Contract, the contractor must effect and maintain with companies licensed and authorized to do business in the State of New York, the types of insurance set forth therein, when required by and in the amounts set forth in Schedule A of the General Conditions. Such required insurance must be provided from the date the contractor is ordered to commence work and up to the date of final acceptance of all required work.

(B) The contractor must, within ten days of receipt of the notice of award, submit the following insurance documentation: (a) original certificate of insurance for general liability in the amount required by Schedule A of the General Conditions, and (b) original certificates of insurance or other proof of coverage for workers' compensation and disability benefits, as required by Section 57 of the New York State Workers' Compensation Law and Section 220 of the Disability Benefits Law.

32. Lump Sum Contracts

(A) Comparison of Bids: Bids on Lump Sum Contracts will be compared on the basis of the lump sum price bid, adjusted for alternate prices bid, if any.

(B) Lump Sum Bids for "General Construction Work" which include excavation shall include all necessary excavation work defined in the Specifications as being included in the lump sum bid. The bidder shall also bid a unit price for the additional cost of excavating material which is defined in the Specifications as excavation for which additional payment will be made. The total estimated additional cost of removing such material will be taken as the quantity set forth in the Engineer's Estimate multiplied by the unit price bid. This total estimated cost of additional excavation shall be added to the lump sum bid for the General Construction Work for the purpose of comparing bids to determine the low bidder.

(C) Variations from Engineer's Estimate: The Engineer's Estimate of the quantity of excavation for which additional payment will be made is approximate only and is given solely to be used as a uniform basis for the comparison of bids and such estimate is not to be considered as part of this contract. The quantities actually required to complete the contract work may be more or less than the quantities in the Engineer's Estimate and, if so, no action for damages or for loss of profits shall accrue to the contractor by reason thereof.

33. Unit Price Contracts

(A) Comparison of Bids: Bids on Unit Price Contracts will be compared on the basis of a total estimated price, arrived at by taking the sum of the estimated quantities of such items, in accordance with the Engineer's Estimate of Quantities set forth in the Bid Schedule, multiplied by the corresponding unit prices, and including any lump sum bids on individual items.

(B) Variations from Engineer's Estimate: Bidders are warned that the Engineer's Estimate of Quantities on the various items of work and materials is approximate only, given solely to be used as a uniform basis for the comparison of bids, and is not be considered part of this contract. The quantities actually required to complete the contract work may be less or more than so estimated, and if so, no action for damages or for loss of profits shall accrue to the contractor by reason thereof.

(C) Overruns: The terms and conditions applicable to overruns of unit price items are set forth in Article 26 of the Contract.

34. Excise Tax

Bidders are referred to the Specifications for information on Federal Excise Tax exemptions.

35. Licenses and Permits

The successful bidder will be required to obtain all necessary licenses and permits necessary to perform the work.

36. Multiple Prime Contractors

If more than one prime contractor will be involved on this project, all contractors are required to examine the Invitation for Bid packages for all other parts of the project.

37. Locally Based Enterprise Requirements (LBE)

This Contract is subject to the requirements of Administrative Code, Section 6-108.1, and the regulations promulgated thereunder. No construction contract will be awarded unless and until these requirements have been complied with in their entirety. The bidder is advised of the provisions set forth below, as well as the provisions with respect to the Locally Based Enterprise Program contained in Article 67 of the Contract. The contractor is advised that:

(A) If any portion of the Contract is subcontracted, not less than ten percent of the total dollar amount of the contract shall be awarded to locally based enterprises ("LBEs"); except, where less than ten percent of the total dollar amount of the Contract is subcontracted, such lesser percentage shall be so awarded.

(B) No contractor shall require performance and payment bonds from LBE subcontractors.

(C) No Contract shall be awarded unless the contractor first identifies in its bid:

- (1) the percentage, dollar amount and type of work to be subcontracted; and
- (2) the percentage, dollar amount and type of work to be subcontracted to LBEs.

(D) Within ten calendar days after notification of low bid, the apparent low bidder shall submit an "LBE Participation Schedule" to the contracting agency. If such schedule does not identify sufficient LBE subcontractors to meet the requirements of Administrative Code Section 6-108.1, the apparent low bidder shall submit documentation of its good faith efforts to meet such requirements.

(1) The "LBE Participation Schedule" shall include:

- (a) the name and address of each LBE that will be given a subcontract,
- (b) the percentage, dollar amount and type of work to be subcontracted to the LBE, and
- (c) the dates when the LBE subcontract work will commence and end.

(2) The following documents shall be attached to the "LBE Participation Schedule":

- (a) verification letters from each subcontractor listed in the "LBE Participation Schedule" stating that the LBE will enter into a formal agreement for work,
- (b) certification documents of any proposed LBE subcontractor which is not on the LBE certified list, and
- (c) copies of the certification letter of any proposed subcontractor which is an LBE.

(3) Documentation of good faith efforts to achieve the required LBE percentage shall include as appropriate but not limited to the following:

- (a) attendance at prebid meetings, when scheduled by the agency, to advise bidders of contract requirements;

- (b) advertisement where appropriate in general circulation media, trade association publications and small business media of the specific subcontracts that would be at least equal to the percentage goal for LBE utilization specified by the contractor;
- (c) written notification to association of small, minority and women contractors soliciting specific subcontractors;
- (d) written notification by certified mail to LBE firms that their interest in the contract is solicited for specific work items and their estimated values;
- (e) demonstration of efforts made to select portions of the work for performance by LBE firms in order to increase the likelihood of achieving the stated goal;
- (f) documented efforts to negotiate with LBE firms for specific subcontracts, including at a minimum:
 - (i) The names, address and telephone numbers of LBE firms that are contacted;
 - (ii) A description of the information provided to LBE firms regarding the plans and specifications for portions of the work to be performed;
 - (iii) Documentation showing that no reasonable price can be obtained from LBE firms;
 - (iv) A statement of why agreements with LBE firms were not reached;
- (g) a statement of the reason for rejecting any LBE firm which the contractor deemed to be unqualified; and
- (h) documentation of efforts made to assist the LBE firms contacted that needed assistance in obtaining required insurance.

(E) Unless otherwise waived by the Commissioner with the approval of the Office of Economic and Financial Opportunity, failure of a proposed contractor to provide the information required by paragraphs (C) and (D) above may render the bid non-responsive and the Contract may not be awarded to the bidder. If the contractor states that it will subcontract a specific portion of the work, but can demonstrate despite good faith efforts it cannot achieve its required LBE percentage for subcontracted work until after award of Contract, the Contract may be awarded, subject to a letter of compliance from the contractor stating that it will comply with Administrative Code Section 6-108.1 and subject to approval by the Commissioner. If the contractor has not met its required LBE percentage prior to award, the contractor shall demonstrate that a good faith effort has been made subsequent to award to obtain LBEs on each subcontract until it meets the required percentage.

(F) When a bidder indicates prior to award that no work will be subcontracted, no work may be subcontracted without the prior written approval of the Commissioner, which shall be granted only if the contractor in good faith seeks LBE subcontractors at least six weeks prior to the start of work.

(G) The contractor may not substitute or change any LBE which was identified prior to award of the contract without the written permission of the Commissioner. The contractor shall make a written application to the Commissioner for permission to make such substitution or change, explaining why the contractor needs to change its LBE subcontractor and how the contractor will meet its LBE subcontracting requirement. Copies of such application must be served on the originally identified LBE by certified mail return receipt requested, as well as the proposed substitute LBE. The Commissioner shall determine whether or not to grant the contractor's request for substitution.

38. Bid Submission Requirements

The following forms, all of which are contained in the Bid Booklet, are to be completed and submitted with the bid:

- (1) Bid Schedule and Bid Form, including Affirmation
- (2) Bid Security (if required, see Attachment 1 on Page A-1)
- (3) M/WBE Subcontractor Utilization Plan (if participation goals have been established)

**FAILURE TO SUBMIT ITEMS (1), (2) AND (3)
WILL RESULT IN THE DISQUALIFICATION OF THE BID.**

- (4) Safety Questionnaire
- (5) Construction Employment Report (if bid is \$1,000,000 or more)
- (6) Contract Certificate (if bid is less than \$1,000,000)
- (7) Confirmation of Vendex Compliance
- (8) Special Experience Requirements (if applicable to this contract)
- (9) Apprenticeship Program Questionnaire (if applicable)

**FAILURE TO SUBMIT ITEMS (4) THROUGH (9)
MAY RESULT IN THE DISQUALIFICATION OF THE BID.**

39. Comptroller's Certificate

This Contract shall not be binding or of any force unless it is registered by the Comptroller in accordance with Section 328 of the City Charter and the Procurement Policy Board Rules. This Contract shall continue in force only after annual appropriation of funds by the City of New York and certification as hereinabove set forth.

40. Procurement Policy Board Rules

This Invitation For Bids is subject to the Rules of the Procurement Policy Board of the City of New York. In the event of a conflict between said Rules and a provision of this Invitation For Bids, the Rules shall take precedence.

41. DDC Safety Requirements

The DDC Safety Requirements apply to the work to be performed pursuant to the Contract. The DDC Safety Requirements are set forth on the following pages.

CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
SAFETY REQUIREMENTS

June 2015

THE DDC SAFETY REQUIREMENTS INCLUDE THE FOLLOWING SECTIONS:

- I. POLICY ON SITE SAFETY
- II. PURPOSE
- III. DEFINITIONS
- IV. RESPONSIBILITIES
- V. SAFETY QUESTIONNAIRE
- VI. SAFETY PROGRAM AND SITE SAFETY PLAN
- VII. KICK-OFF/PRE-CONSTRUCTION MEETINGS AND SAFETY REVIEW
- VIII. EVALUATION DURING WORK IN PROGRESS
- IX. SAFETY PERFORMANCE EVALUATION

City of New York Department of Design and Construction: Safety Requirements
Safety and Site Support- Quality Assurance and Construction Safety

I. POLICY ON SITE SAFETY

The City of New York Department of Design and Construction (DDC) is committed to a policy of injury and illness prevention and risk management for construction work that will ensure the safety and health of the workers engaged in the projects and the protection of the general public. Therefore, it is DDC's policy that work carried out by Contractors on DDC jobsites must, at a minimum, comply with applicable federal, state and city laws, rules and regulations, including without limitation:

- U. S. Department of Labor 29 Code of Federal Regulations (CFR) Part 1926 and applicable Sub-parts of Part 1910 – U.S. Occupational Safety and Health Administration (OSHA); New York State Department of Labor Industrial Code Rule 23 – Protection in Construction, Demolition and Excavation;
- New York City Construction Codes, Title 28
- NYC Department of Transportation Title 34 Chapter 2 – Highway Rules
- New York State Department of Labor Industrial Code Rule 16 NYCRR Part 753
- Title 15 of the Rules of the City of New York, Chapter 13 Citywide Construction Dust Mitigation
- Manual on Uniform Traffic Control Devices (MUTCD)
- Title 15 of the Rules of the City of New York, Chapter 28 Citywide Construction Noise Mitigation

II. PURPOSE

The purpose of this policy is to ensure that Contractors perform their work and supervise their employees in accordance with all applicable federal, state and city rules and regulations. Further, Contractors will be expected to minimize or eliminate jobsite and public hazards, through a planning, inspection, auditing and corrective action process. The goal is to control risks so that injuries, illnesses and accidents to contractors' employees, DDC employees and the general public, as well as damage to city-owned and private property, are reduced to the lowest level feasible.

III. DEFINITIONS

Agency Chief Contracting Officer (ACCO): The ACCO shall mean the person delegated authority by the Commissioner to organize and supervise the procurement activity of subordinate Agency staff in conjunction with the CCPO.

Competent Person: As defined by OSHA, an individual who is capable of identifying existing and predictable hazards in the surroundings or working conditions that are unsanitary, hazardous, or dangerous to employees or the general public, and who has authorization to take prompt corrective measures to eliminate them.

Construction Safety Auditor: A representative of the QA&CS Construction Safety Unit who provides inspection and assessment services to enhance health and safety on all DDC construction projects. The activities of the Construction Safety Auditor include performing site surveys, reviewing health and safety plans, reviewing construction permits, and rendering technical advice and assistance to DDC Resident Engineers and Project Managers.

Construction Safety Unit: A part of QA&CS within the Division of Program Management/ Safety & Site Support that assesses contractor safety on DDC jobsites and advises responsible parties of needed corrective actions.

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Construction Superintendent: A representative of the contractor responsible for overseeing performance of the required construction work. This individual must engage in sound construction practices, and is responsible to maintain a safe work site. In the case of a project involving the demolition, alteration or new construction of buildings, the Construction Superintendent must be licensed by the NYC Department of Buildings.

Contractor: For purposes of these Safety Requirements, the term "Contractor" shall mean any person or entity that enters into a contract for the performance of construction work on a DDC project. The term "Contractor" shall include any person or entity which enters into any of the following types of contracts: (1) a prime construction contract for a specific project, (2) a prime construction contract using the Job Order Contracting System ("JOCS Contract"), and (3) a subcontract with a CM/Builder ("First Tier Subcontract").

Daily Safety Job Briefing: Daily jobsite safety meetings, giving to all jobsite personnel by contractor, with the purpose of discussing project specific safety procedures for the scheduled construction work.

Director - Quality Assurance and Construction Safety (QA&CS): Responsible for the operations of the QACS Construction Safety Unit and the DDC Site Safety management programs.

Job Hazard Analysis (JHA): A process of identifying the major job steps and any potential site-specific hazards that may be present during construction and establishing the means and methods to eliminate or control those hazards.

Qualified Person: As defined by OSHA, an individual who, by possession of a recognized degree, certificate, license or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated his or her ability to solve problems relating to the subject matter, the work, or the project. Qualified Persons are required under regulation to address issues pertaining, but without limit, to fall protection, scaffold design and trenching and shoring, among others.

Project Site: Those areas indicated in the Contract Documents where the Work is to be performed.

Project Safety Representative: The designated project safety representative shall have completed an authorized 30 hour OSHA Construction Safety Course and other safety training applicable to Contractor's/subcontractor's project work. Except in instances where a dedicated Project Safety Manager is required, a Project Safety Representative may also function as a superintendent, foreman or crew leader on the Project, but must have sufficient experience and authority to undertake corrective actions and must qualify to be a competent person. No work is to be performed on site when a Project Safety Representative is not present.

Project Safety Manager: A dedicated, full-time project safety manager may be a contractual requirement on large projects or projects deemed by DDC to be particularly high risk. This would be in addition or in lieu of a Contractor's Project Safety Representative. This individual shall not have any other assigned duties. This individual shall have received, at a minimum an authorized 30 hour OSHA Construction Safety Course. Other examples of acceptable training are OSHA Safety and Health Standards for the Construction Industry training program (OSHA 510), Certified Safety Professional (CSP), Certified Industrial Hygienist (CIH) or a degree/certificate in a safety and health from a college-level curriculum.

A Project Safety Manager shall possess the additional training, years of experience, and skills necessary to thoroughly understand the health and safety hazards and controls for large construction projects, including the full scope of the specific Work.

QA&CS - Quality Assurance and Construction Safety of the New York City Department of Design and Construction.

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Resident Engineer (RE) / Construction Project Manager (CPM): Representative of the Commissioner duly designated by the Commissioner to be his/her representative at the site of the work. (The RE/CPM may be a third-party consultant, including a Construction Management firm, retained by DDC)

Safety Program: Established by the Contractor that covers all operations of that Contractor and establishes the Contractor's overall safety policy, regulatory compliance plan and minimum safety standards. The Safety Program must be submitted prior to the commencement of work at the site and is subject to review and acceptance by the Construction Safety Unit.

Safety Questionnaire: Used by DDC to evaluate Contractor's current and past safety performance. It is required to be completed by all Contractors initially when submitting bids for Construction work, or when being pre-qualified and updated annually or as requested by the DDC.

Site Safety Manager: For certain projects, as defined in NYC Construction Codes – Title 28, the Contractor shall provide a Site Safety Manager with a Site Safety Manager License issued by the NYC Department of Building.

Site Safety Plan: A site-specific safety plan developed by the Contractor for a specific project. The Site Safety Plan must identify hazards associated with the project, and include specific safety procedures and training appropriate and necessary to complete the work. The Site Safety Plan must be submitted prior to the commencement of work at the site and is subject to review and acceptance by the Construction Safety Unit.

Unsafe or Unhealthy Condition: A condition that could be potentially hazardous to the health and safety of personnel or the public, and/or damaging to equipment, machinery, property or the environment.

Weekly Safety Meetings: Weekly documented jobsite safety meetings, given to all jobsite personnel by contractor, with the purpose of discussing general safety topics and job specific requirements encountered at the DDC work site.

Work: The construction required by the Contract Documents whether completed or partially completed, performed by the Contractor/ subcontractors. Work refers to the furnishing of labor, furnishing and incorporating materials and equipment into the construction and providing any service required by the Contract Documents to fulfill the Contractor's obligation to complete the Project.

IV. RESPONSIBILITIES

All persons who manage, perform, and provide support for construction projects shall conduct operations in compliance with the requirements identified in this Policy and all applicable governing regulatory agency requirements and guidelines pertaining to safety in construction.

A. DDC or CM Resident Engineer / Construction Project Manager

- Monitors the issuance of safety-related permits, approvals and drawings and maintains copies on site.
- Monitors construction-related work activities to confirm that they are conducted in accordance with DDC policies and all applicable regulations that pertain to construction safety.
- Maintains documentation and periodically attends weekly safety meetings and daily safety job briefings.
- Notifies the Construction Safety Unit and the ACCO's Insurance and Risk Management Unit of project-related accidents and emergencies, as per DDC's Construction Safety Emergency and Accident Notification and Response Protocol.
- Gathers facts related to all accidents and prepares DDC Construction Accident Report.

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Safety and Site Support– Quality Assurance and Construction Safety

- Notifies the Construction Safety Unit within two (2) hours of the start of an inspection by any outside regulatory agency personnel, including OSHA, NYC DOB or others and forwards a copy of the inspection report within three days of its receipt.
- Monitors the conditions at the site for conformance with the contractor's Site Safety Plan and DDC construction documents.
- Notifies the contractor and DDC in the event that any condition or activity exists that is not in compliance with the contractor's Site Safety Plan, applicable federal, state or local codes or any condition that presents a potential risk of injury to the public or workers or possible damage to property.
- Notifies DDC of any unsafe or unhealthy condition and directs the contractor to provide such labor, materials, equipment and supervision to abate such conditions.
- Escort and assist QA&CS Construction Safety Auditors during the field and record inspections.
- Reports emergency conditions to the Construction Safety Unit immediately.

B. Contractors

- Submit a completed Safety Questionnaire and other safety performance related documentation with its bid or as part of a pre-qualification package.
- Complete a written Job Hazard Analysis (JHA) that identifies safety hazards for project specific work tasks and hazard control methods. A written JHA shall be available at the site for reference and included in the Site Safety Plan submitted by the contractor.
- Submit a Site Safety Plan and Safety Program within 30 days from the Award Date or as otherwise directed. The Site Safety Plan and Safety Program are subject to review and acceptance by the Construction Safety Unit prior to the commencement of work at the site. The Site Safety Plan shall be revised and updated as necessary.
- Develop project specific safety procedures to protect general public during all construction activities for the duration of the project.
- Ensure that all employees are aware of the hazards associated with the project through documented formal and informal training and/or other communications. Conduct and document weekly safety meetings and daily job briefing sessions for the duration of the project. Documentation to be provided to the RE/CPM on a monthly basis.
- Name the Project Safety Representative and Project Safety Manager, if required. The Contractor will be required to identify the Project Safety Representative and Project Safety Manager in the Site Safety Plan. Resumes, outlining the qualification and experience for the Project Safety Representative and Project Safety Manager, shall be available upon request. DDC reserves the right to request that the Contractor replace any Project Safety Representative or Project Safety Manager for any reason at any time during the project.
- Name a Competent Person(s), The Contractor will be required to identify a Competent Person(s) in the Site Safety Plan.
- Comply with all mandated federal, state and local safety and health rules and regulations.
- Comply with all provisions of the Site Safety Plan.
- Conduct applicable safety training prior to the commencement of work at the site. All training records (OSHA 10-hour, flagger, scaffold, fall protection, confined space entry, etc.) shall be provided to the RE/CPM prior to mobilization, included in the Site Safety Plan, kept current during the course of the project, and available for review. Prior to performing any work on DDC project all employees shall have successfully completed, within the previous five calendar years, a 10 Hour OSHA construction safety course.
- As part of the Site Safety Plan, prepare a site specific programs and plans, such as MPT plan, steel erection plan, confined space program, fall protection plan, demolition plan, etc. (if not otherwise provided in the contract documents) and comply with all of its provisions.
- Conduct and document site-specific safety orientation for Contractor personnel to review the hazards associated with the project as identified in the Site Safety Plan and the specific safety procedures and

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controls that will be used to protect workers, the general public and property. The Project Safety Representative and/or Project Safety Manager will conduct this training prior to mobilization and provide documentation to the RE/CPM.

- Provide, replace and adequately maintain at or around the project site, suitable and sufficient signage, lights, barricades and enclosures (fences, sidewalk sheds, netting, bracing, etc.).
- Report unsafe or unhealthy conditions to the RE/CPM as soon as practical, but no more than 24 hours after discovery, and take prompt actions to remove or abate such conditions.
- Report any accidents involving injuries to workers or the general public, as well as property damage, to the RE/CPM within one (1) hour.
- Following an accident, the Contractor shall not remove or alter any equipment, structure, material, or evidence related to the accident. Exception: Immediate emergency procedures taken to secure structures, temporary construction, operations, or equipment that pose a continued imminent danger or facilitate assistance for persons who are trapped or who have sustained bodily injury.
- Notify the RE/CPM within one (1) hour of the start of an inspection by any outside regulatory agency personnel, including OSHA, NYC DOB or others.
- Maintain all records pertaining to all required compliance documents and accident and injury reports.
- Address DDC recommendations on safety, which shall in no way relieve the Contractor of its responsibilities for safety on the project. The Contractor has sole responsibility for safety.

V. SAFETY QUESTIONNAIRE

DDC requires that all Contractors provide information regarding their current and past safety performance and programs. This will be accomplished by the use of the DDC Safety Questionnaire. As a part of the bid submittal package, the contractor must submit a completed DDC Safety Questionnaire listing company workers' compensation experience modification rating and OSHA Incident Rates for the three (3) years prior to the date of the bid opening. DDC may request a Contractor to update its Questionnaire at any time or to provide more detailed information. The Contractor must provide the requested information within 15 days.

The following criteria will be used by DDC in reviewing the Contractor's responsibility, which will be based on the information provided on the questionnaire:

- Criteria 1: OSHA Injury and Illness Rates (I&IR) are no greater than the average for the industry (based on the most current Bureau of Labor Statistics data for the Contractors SIC code); and
- Criteria 2: Insurance workers compensation Experience Modification Rate (EMR) equal to or less than 1.0; and
- Criteria 3: Any willful violations issued by OSHA or NYC DOB within the last three (3) years; and
- Criteria 4: A fatality (worker or member of public) and injuries, requiring OSHA notification, experienced on or near Contractor's worksite within the last three (3) years; and
- Criteria 5: Past safety performance on DDC projects (accidents; status of safety program and site safety plan submittals; etc.)
- Criteria 6: OSHA violation history for the last three (3) years;
- Criteria 7: Contractor shall provide OSHA Injury and Illness Records (currently OSHA 300 and 300A Logs) for the last three (3) years.

If the Contractor fails to meet the basic criteria listed above, the Construction Safety Unit may request, through the ACCO, more details concerning the Contractor's safety experience. DDC may request the Contractor to provide copies of, among other things, accident investigation reports, OSHA records, OSHA and NYC DOB citations, EPA citations and written corrective action plan.

City of New York Department of Design and Construction: Safety Requirements
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VI. SAFETY PROGRAM AND SITE SAFETY PLAN

Within thirty (30) days from the Award Date, or as otherwise directed, the Contractor shall submit the following: (1) Safety Program, and (2) Site Safety Plan. The Safety Program shall set forth the Contractor's overall safety policy, regulatory compliance plan and minimum safety standards. The Site Safety Plan shall identify project work scope, safety hazards associated with the project tasks, and include specific safety procedures and training appropriate and necessary to complete the work. The Safety Program and the Site Safety Plan are subject to review and acceptance by the Construction Safety Unit prior to the commencement of work at the site. Failure by the Contractor to submit an acceptable Site Safety Plan and Safety Program shall be grounds for default.

Safety Program: Corporate Safety Program established by the Contractor that includes the Contractor's overall safety policy, regulatory compliance plan and basic safety procedures covering all aspects of construction operations, performed by the Contractor. The Safety Program shall be a written document with a separate section describing each element of the Safety Program. The Safety Program shall have at minimum the following elements applicable to the Contractor's operations:

- Responsibility and Organization – Contractor's company organization chart, including titles, names, contact information, roles and responsibilities for key personnel, etc.
- Safety Training Program – Contractor's corporate training program.
- Hazard Corrective Actions – Criteria for safety inspections, identification of safety non-compliances, implementation and verification of corrective actions, forms to document safety inspections results, etc.
- Accident/Exposure Investigation
- Recordkeeping and Reporting Injuries – Responsible staff; reporting and recording criteria; OSHA 300 and 300A form completion, etc.
- Fire Protection and Prevention Program
- Housekeeping
- Illumination
- Sanitation
- Personal Protective Equipment (PPE) – Company policy for the use of head protection, foot protection, hearing protection, eye and face protection, protective clothing, and any additional protective equipment based on work tasks; PPE inspection and replacement policy.
- Hazard Communication Program
- Employee Emergency Action Plan
- Protection of Underground Facilities and Utilities
- Ionizing/Nonionizing Radiation
- Material Handling, Storage, Use and Disposal
- Tools – Hand and Power
- Signs, Signals, and Barricades
- Scaffold – Local Law 52 requirements, installation, use, inspection, dismantling, training and general safety requirements.
- Welding and Cutting
- Electrical Safety
- Fall Protection
- Cranes, Derrick, Hoists, Elevators, Conveyors
- Excavation Safety
- Concrete and Masonry Construction
- Maintenance and Protection of Traffic
- Steel Erection
- Demolition
- Blasting and the Use of Explosives
- Stairways and Ladders

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- Toxic and Hazardous Substances
- Alcohol and Drug Abuse Policy
- Rodents and Vermin
- Occupational Noise Exposure
- Confined Space Program – General confined Space Program: training requirements, confined space hazard evaluation procedure, atmospheric testing procedure, confined space classification, permit-required procedure, communication procedure, rescue procedure, forms, etc.
- Construction Vehicles/Heavy Equipment
- Dust Control Procedures

Site Safety Plan: The Site Safety Plan shall be a written document and shall apply to all project specific Contractor and subcontractor operations, and shall have at a minimum, the following elements with each element described in a separate section (It may be necessary to modify the basic format for certain unique or high-risk projects, such as tunnels or high-rise construction):

- Project Work Scope – Detailed information regarding work tasks that will be performed by contractor and subcontractors under the project.
- Responsibility and Organization – Contractor's organization chart with responsible staff for the project, including titles, names, contact information, roles and responsibilities.
- Safety Training and Education – OSHA 10 Hours training, requirements for daily safety briefings and weekly safety meetings, any work task specific training, responsible staff for implementation of training program for the project.
- Job Hazard Analysis (JHA) – Project specific Job Hazard Analysis including work tasks, identified hazards, hazard control methods (administrative, engineering, PPE), contractor's name, project id, location, name and signature of a certifying person, hazard assessment date.
- Protection of Public
- Hazard Corrective Actions – Responsible staff, forms, frequency of safety inspections and implementation of corrective actions.
- Accident/Exposure Investigation – Accident/incident notification procedure of DDC project staff. Project specific procedures for accident investigation and implementation of corrective actions.
- First Aid and Medical Attention – Responsible staff, location and inspection of First Aid kit, directions to local hospitals; emergency telephone numbers.
- Project Specific Fire Protection and Prevention Program.
- Project Specific Illumination Procedure.
- Project Specific Sanitation Procedure.
- Personal Protective Equipment (PPE)
- Hazard Communication Program – Responsible staff; training; SDS records, project specific list of chemical; location of the program and SDS records.
- Means of Egress – Information regarding free and unobstructed egress from all parts of the building or structure; exit marking; maintenance of means of egress, etc.
- Employee Emergency Action Plan – Project specific: responsible staff, emergency alarm system, evacuation procedure, procedure to account for employees after evacuation, etc.
- Evacuation Plan – Project specific evacuation plan (drawing/scheme) with exists and evacuation routes.
- Protection of Underground Facilities and Utilities, including responsible staff.
- Ionizing/Nonionizing Radiation – Competent person, license and qualification requirements, type of radiation, employees exposure and protection, etc.
- Material Handling, Storage, Use and Disposal – Project specific information regarding material storage and disposal.
- Signs, Signals, and Barricades – Use of danger/warning signs, sidewalk closure, safety instruction signs, pedestrian fencing and barricades, etc.
- Scaffold – Project specific scaffold types, training, scaffold drawings, competent person, criteria for project specific scaffold, falling object protection.

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- Welding and Cutting – project specific procedure for welding and cutting, including all necessary safety requirements such as fire prevention, personal protective equipment, hot work permits, FDNY certificate requirements.
- Fall Protection – Project specific information regarding selected fall protection systems, fall protection plan.
- Cranes, Derrick, Hoists, Elevators, Conveyors – project specific equipment information including type, rated load capacity, manufacture specification requirements, competent person, exposure to falling load, inspection, recordkeeping, clearance requirements, communication procedure, ground lines, permits.
- Excavation Safety – Competent person, project specific protective system.
- Maintenance and Protection of Traffic Plan – Project specific MPT plan, flagmen training.
- Steel Erection – Site specific erection plan, requirements for applicable written notifications, competent person.
- Demolition – Engineering survey, including written evidence, disconnection of all effected utilities, identification of all hazardous chemicals, materials, gases, etc., floor openings, chutes, inspection and maintenance of all stairs/passageways, removal of materials/debris/structural elements, lock out/tag out, competent person.
- Blasting and the Use of Explosives – Project specific safety procedures, warning signs, training/qualification, transportation, storage and use of explosives, inspection.
- Toxic and Hazardous Substances – Safety procedures for substances to be used on project.
- Noise Mitigation Plan – Completed project specific Noise Mitigation Plan.
- Confined Space Program – Project specific Confined Space Program, responsible staff, training records, equipment information, rescue procedure, list of project specific confined spaces, forms.
- Construction Vehicles/Heavy Equipment – Type of construction vehicles/heavy equipment to be used on site.
- Dust Mitigation Plan – Completed project specific Dust Mitigation Plan.

The most critical component of the Site Safety Plan is the Job Hazard Analysis (JHA) section. The JHA form is a written document prepared by the contractor. The contractor must conduct a site and task assessment JHA to identify the major job steps and any potential safety or environmental hazards related to performance of the work, eliminate or implement controls for the potential hazards, and identify proper personal protective equipment for the task. The JHA shall be communicated to all contractor/subcontractor personnel on site.

The initial Job Hazard Assessment form shall be included in the contractor's Site Safety Plan and the current form shall be available at the construction site for reference.

Certain DDC programs, such as Job Order Contracting System (JOCS), may not necessarily require Site Safety Plans. The JOCS contractor shall submit a Safety Program. The Site Safety Plan requirement for the JOCS contractor will be determined by QA&CS based on a project work scope, construction activities and project location. In addition, certain DDC Operating Units may establish client-specific program or safety requirements. The contractor's Site Safety Plan must address such client-specific program or safety requirements.

VII. KICK-OFF MEETINGS/PRE-CONSTRUCTION AND SAFETY REVIEW

RE/CPM shall invite QA&CS Construction Safety Unit to the construction kick-off meeting. A QA&CS representative will participate in this meeting with the Contractor and RE/CPM prior to the start of the project for the purpose of:

- A. Reviewing the safety issues detailed in the contract.
- B. Reviewing the Site Safety Plan.
- C. Reviewing any new issues or information that was not previously addressed.
- D. Discussing planned inspections and audits of the site by QA&CS personnel.

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VIII. EVALUATION DURING WORK IN PROGRESS

The Contractor's adherence to these Safety Requirements will be monitored throughout the project. This will be accomplished by the following:

- A. Use of a safety checklist by a representative of the Construction Safety Unit or other designated DDC representative or Consultant during regular, unannounced inspections of the job site. Field Exit Conferences will be held with the RE/CPM, Contractor Project Safety Representatives.
- B. The RE/CPM will continually monitor the safety and environmental performance of the contractor's employees and work methods. Deficiencies shall be brought to the attention of the contractor's representative on site for immediate correction. The DDC representative will maintain a written record of these deficiencies and have these records available upon request. Any critical deficiencies shall be immediately reported to QA&CS phone# (718) 391-1624 or (718) 391-1911.
- C. If the Contractor's safety performance during the project is not up to DDC standards (safety performance measure, accident/incident rate, etc.) the Director – QA&CS, or his/her designee will meet with the Contractor's Project Safety Representative and or Project Safety Manager, the DDC Project Manager, the RE/CPM, and the DDC Environmental Specialist (if environmental issues are involved). The purpose of this meeting is to 1) determine the level of non-compliance; 2) explain and clarify the safety/environmental provisions; 3) agree on a future course of action to correct the deficiencies.
- D. If the deficiencies continue to occur with inadequate attention by the contractor, this shall, among other remedies available, be grounds for default.
- E. The contractor shall within 1 hour inform the RE/CPM/CM of all accidents/incidents including all fatalities, any injuries to employees or members of the general public, and property damage (e.g., structural damage, equipment rollovers, utility damage, loads dropped from crane). The RE/CPM shall notify the Construction Safety Unit as per DDC's Construction Safety Emergency and Accident Notification and Response Protocol and shall maintain a record of all contractor accidents/incidents for the project.
- F. The Construction Safety Unit shall be notified within two (2) hours of the start of any NYS-DOL/ NYC-COSH/ OSHA/ EPA inspections.

IX. SAFETY PERFORMANCE EVALUATION

The contractor's safety record, including accident/incident history and DDC safety inspection results, will be considered as part of the Contractor's performance evaluation at the conclusion of the project. Poor safety performance during the course of the project shall be a reason to rate a Contractor unsatisfactory which may be reflected in the City's Vendex system and will be considered for future procurement actions as set forth in the City's Procurement Policy Board Rules.

**NEW YORK CITY STANDARD CONSTRUCTION CONTRACT (DEC. 2013)
INSURANCE RIDER**

The following provisions supersede the corresponding provisions in the December 2013 version of the New York City Standard Construction Contract:

1. Section 22.1.1(c) provides as follows:

22.1.1(c) If the **Work** requires a permit from the Department of Buildings pursuant to 1 RCNY Section 101-08, the **Contractor** shall provide Commercial General Liability Insurance with limits of at least those required by 1 RCNY section 101-08 or greater limits provided by the Agency in Schedule A. If the Work does not require such a permit, the minimum limits shall be those provided for in Schedule A.

2. Section 22.3.3 provides as follows:

22.3.3 For policies provided pursuant to all of Article 22.1 other than Article 22.1.2, the **Contractor** shall submit one or more Certificates of Insurance on forms acceptable to the **Commissioner**. All such Certificates of Insurance shall certify (a) the issuance and effectiveness of such policies of insurance, each with the specified minimum limits (b) for insurance secured pursuant to Article 22.1.1 that the **City** and any other entity specified in Schedule A is an Additional Insured thereunder; (c) in the event insurance is required pursuant to Article 22.1.6 and/or Article 22.1.7, that the **City** is an Additional Insured thereunder; and (d) the company code issued to the insurance company by the National Association of Insurance Commissioners (the NAIC number). All such Certificates of Insurance shall be accompanied by the required additional insured endorsements and either a duly executed "Certification by Insurance Broker or Agent" in the form contained in Part III of Schedule A or copies of all policies referenced in such Certificate of Insurance as certified by an authorized representative of the issuing insurance carrier. If any policy is not available at the time of submission, certified binders may be submitted until such time as the policy is available, at which time a certified copy of the policy shall be submitted.

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STANDARD CONSTRUCTION CONTRACT**

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WITNESSETH:

The parties, in consideration of the mutual agreements contained herein, agree as follows:

**CHAPTER I
THE CONTRACT AND DEFINITIONS**

ARTICLE 1. THE CONTRACT

1.1 Except for titles, subtitles, headings, running headlines, tables of contents and indices (all of which are printed herein merely for convenience), the following, except for such portions thereof as may be specifically excluded, shall be deemed to be part of this Contract:

1.1.1 All provisions required by law to be inserted in this Contract, whether actually inserted or not;

1.1.2 The Contract Drawings and Specifications;

1.1.3 The General Conditions and Special Conditions, if any;

1.1.4 The Contract;

1.1.5 The Information for Bidders; Request for Proposals; Notice of Solicitation and Proposal For Bids; Bid or Proposal, and, if used, the Bid Booklet;

1.1.6 All Addenda issued prior to the receipt of the bids; the Notice of Award; Performance and Payment Bonds, if required; and the Notice to Proceed or the Order to Work.

1.2 Should any conflict occur in or between the Drawings and Specifications, the Contractor shall be deemed to have estimated the most expensive way of doing the Work, unless the Contractor shall have asked for and obtained a decision in writing from the Commissioner of the Agency that is entering into this Contract, before the submission of its bid, as to what shall govern.

ARTICLE 2. DEFINITIONS

2.1 The following words and expressions, or pronouns used in their stead, shall, wherever they appear in this Contract, be construed as follows, unless a different meaning is clear from the context:

2.1.1 "**Addendum**" or "**Addenda**" shall mean the additional Contract provisions and/or technical clarifications issued in writing by the Commissioner prior to the receipt of bids.

2.1.2 "**Agency**" shall mean a city, county, borough or other office, position, department, division, bureau, board or commission, or a corporation, institution or agency of government, the expenses of which are paid in whole or in part from the City treasury.

2.1.3 "**Agency Chief Contracting Officer**" (**ACCO**) shall mean a person delegated authority by the Commissioner to organize and supervise the procurement activity of subordinate Agency staff in conjunction with the CCPO, or his/her duly authorized representative.

2.1.4 "**Allowance**" shall mean a sum of money which the Agency may include in the total amount of the Contract for such specific contingencies as the Agency believes may be necessary to complete the Work, *e.g.*, lead or asbestos remediation, and for which the Contractor will be paid on the basis of stipulated unit prices or a formula set forth in the Contract or negotiated between the parties provided, however, that if the Contractor is not directed to use the Allowance, the Contractor shall have no right to such money and it shall be deducted from the total amount of the Contract.

2.1.5 "**City**" shall mean the City of New York.

2.1.6 "**City Chief Procurement Officer**" (**CCPO**) shall mean a person delegated authority by the Mayor to coordinate and oversee the procurement activity of Mayoral agency staff, including the ACCO and any offices which have oversight responsibility for the procurement of construction, or his/her duly authorized representative.

2.1.7 "**Commissioner**" shall mean the head of the Agency that has entered into this Contract, or his/her duly authorized representative.

2.1.8 "**Comptroller**" shall mean the Comptroller of the City of New York.

2.1.9 "**Contract**" or "**Contract Documents**" shall mean each of the various parts of the contract referred to in Article 1 hereof, both as a whole and severally.

2.1.10 "**Contract Drawings**" shall mean only those drawings specifically entitled as such and listed in the Specifications or in any Addendum, or any drawings furnished by the Commissioner, pertaining or supplemental thereto.

2.1.11 "**Contract Work**" shall mean everything required to be furnished and done by the Contractor by any one or more of the parts of the Contract referred to in Article 1, except Extra Work as hereinafter defined.

2.1.12 "**Contractor**" shall mean the entity which executed this Contract, whether a corporation, firm, partnership, joint venture, individual, or any combination thereof, and its, their, his/her successors, personal representatives, executors, administrators, and assigns, and any person, firm, partnership, joint venture, individual, or corporation which shall at any time be substituted in the place of the Contractor under this Contract.

2.1.13 "**Days**" shall mean calendar days, except where otherwise specified.

2.1.14 "**Engineer**" or "**Architect**" or "**Project Manager**" shall mean the person so designated in writing by the Commissioner in the Notice to Proceed or the Order to Work to act as such in relation to this Contract, including a private Architect or Engineer or Project Manager, as the case may be. Subject to written approval by the Commissioner, the Engineer, Architect or Project Manager may designate an authorized representative.

2.1.15 "**Engineering Audit Officer**" (**EAO**) shall mean the person so designated by the Commissioner to perform responsible auditing functions hereunder.

2.1.16 "**Extra Work**" shall mean Work other than that required by the Contract at the time of award which is authorized by the Commissioner pursuant to Chapter VI of this Contract.

2.1.17 "**Federal-Aid Contract**" shall mean a contract in which the United States (federal) Government provides financial funding as so designated in the Information for Bidders.

2.1.18 **"Final Acceptance"** shall mean final written acceptance of all the Work by the Commissioner, a copy of which shall be sent to the Contractor.

2.1.19 **"Final Approved Punch List"** shall mean a list, approved pursuant to Article 14.2.2, specifying those items of Work to be completed by the Contractor after Substantial Completion and dates for the completion of each item of Work.

2.1.20 **"Law" or "Laws"** shall mean the Constitution of the State of New York, the New York City Charter, the New York City Administrative Code, a statute of the United States or of the State of New York, a local law of the City of New York, any ordinance, rule or regulation having the force of law, or common law.

2.1.21 **"Materialman"** shall mean any corporation, firm, partnership, joint venture, or individual, other than employees of the Contractor, who or which contracts with the Contractor or any Subcontractor, to fabricate or deliver, or who actually fabricates or delivers, plant, materials or equipment to be incorporated in the Work.

2.1.22 **"Means and Methods of Construction"** shall mean the labor, materials, temporary structures, tools, plant, and construction equipment, and the manner and time of their use, necessary to accomplish the result intended by this Contract.

2.1.23 **"Notice to Proceed" or "Order to Work"** shall mean the written notice issued by the Commissioner specifying the time for commencement of the Work and the Engineer, Architect or Project Manager.

2.1.24 **"Other Contractor(s)"** shall mean any contractor (other than the entity which executed this Contract or its Subcontractors) who or which has a contract with the City for work on or adjacent to the building or Site of the Work.

2.1.25 **"Payroll Taxes"** shall mean State Unemployment Insurance (SUI), Federal Unemployment Insurance (FUI), and payments pursuant to the Federal Insurance Contributions Act (FICA).

2.1.26 **"Project"** shall mean the public improvement to which this Contract relates.

2.1.27 **"Procurement Policy Board" (PPB)** shall mean the Agency of the City of New York whose function is to establish comprehensive and consistent procurement policies and rules which shall have broad application throughout the City.

2.1.28 **"Required Quantity"** in a unit price Contract shall mean the actual quantity of any item of Work or materials which is required to be performed or furnished in order to comply with the Contract.

2.1.29 **"Resident Engineer"** shall mean the representative of the Commissioner duly designated by the Commissioner to be his/her representative at the site of the Work.

2.1.30 **"Site"** shall mean the area upon or in which the Contractor's operations are carried on, and such other areas adjacent thereto as may be designated as such by the Engineer.

2.1.31 **"Small Tools"** shall mean items that are ordinarily required for a worker's job function, including but not limited to, equipment that ordinarily has no licensing, insurance

or substantive storage costs associated with it; such as circular and chain saws, impact drills, threaders, benders, wrenches, socket tools, etc.

2.1.32 "**Specifications**" shall mean all of the directions, requirements, and standards of performance applying to the Work as hereinafter detailed and designated under the Specifications.

2.1.33 "**Subcontractor**" shall mean any person, firm or corporation, other than employees of the Contractor, who or which contracts with the Contractor or with its subcontractors to furnish, or actually furnishes labor, or labor and materials, or labor and equipment, or superintendence, supervision and/or management at the Site. Wherever the word Subcontractor appears, it shall also mean sub-Subcontractor.

2.1.34 "**Substantial Completion**" shall mean the written determination by the Engineer that the Work required under this Contract is substantially, but not entirely, complete and the approval of the **Final Approved Punch List**.

2.1.35 "**Work**" shall mean all services required to complete the Project in accordance with the Contract Documents, including without limitation, labor, material, superintendence, management, administration, equipment, and incidentals, and obtaining any and all permits, certifications and licenses as may be necessary and required to complete the Work, and shall include both Contract Work and Extra Work.

CHAPTER II THE WORK AND ITS PERFORMANCE

ARTICLE 3. CHARACTER OF THE WORK

3.1 Unless otherwise expressly provided in the **Contract Drawings, Specifications, and Addenda**, the **Work** shall be performed in accordance with the best modern practice, utilizing, unless otherwise specified in writing, new and unused materials of standard first grade quality and workmanship and design of the highest quality, to the satisfaction of the **Commissioner**.

ARTICLE 4. MEANS AND METHODS OF CONSTRUCTION

4.1 Unless otherwise expressly provided in the **Contract Drawings, Specifications, and Addenda**, the **Means and Methods of Construction** shall be such as the **Contractor** may choose; subject, however, to the **Engineer's** right to reject the **Means and Methods of Construction** proposed by the **Contractor** which in the opinion of the **Engineer**:

4.1.1 Will constitute or create a hazard to the **Work**, or to persons or property; or

4.1.2 Will not produce finished **Work** in accordance with the terms of the **Contract**; or

4.1.3 Will be detrimental to the overall progress of the **Project**.

4.2 The **Engineer's** approval of the **Contractor's Means and Methods of Construction**, or his/her failure to exercise his/her right to reject such means or methods, shall not relieve the **Contractor** of its obligation to complete the **Work** as provided in this **Contract**; nor shall the exercise of such right to reject create a cause of action for damages.

ARTICLE 5. COMPLIANCE WITH LAWS

5.1 The **Contractor** shall comply with all **Laws** applicable to this **Contract** and to the **Work** to be done hereunder.

5.2 Procurement Policy Board Rules: This **Contract** is subject to the Rules of the **PPB** ("**PPB Rules**") in effect at the time of the bid opening for this **Contract**. In the event of a conflict between the **PPB Rules** and a provision of this **Contract**, the **PPB Rules** shall take precedence.

5.3 Noise Control Code provisions.

5.3.1 In accordance with the provisions of Section 24-216(b) of the Administrative Code of the **City** ("**Administrative Code**"), Noise Abatement Contract Compliance, devices and activities which will be operated, conducted, constructed or manufactured pursuant to this **Contract** and which are subject to the provisions of the **City** Noise Control Code shall be operated, conducted, constructed, or manufactured without causing a violation of the Administrative Code. Such devices and activities shall incorporate advances in the art of noise control development for the kind and level of noise emitted or produced by such devices and activities, in accordance with regulations issued by the **Commissioner** of the **City** Department of Environmental Protection.

5.3.2 The **Contractor** agrees to comply with Section 24-219 of the Administrative Code and implementing rules codified at 15 Rules of the City of New York ("**RCNY**") Section 28-100 *et seq.* In accordance with such provisions, the **Contractor**, if the **Contractor** is the responsible party under such regulations, shall prepare and post a Construction Noise Mitigation Plan at each **Site**, in which the **Contractor** shall certify that all construction tools and equipment have been maintained so that they operate at normal manufacturers operating specifications. If the **Contractor** cannot make this certification, it must have in place an Alternative Noise Mitigation Plan approved by the **City** Department of Environmental Protection. In addition, the **Contractor's** certified Construction Noise Mitigation Plan is subject inspection by the **City** Department of Environmental Protection in accordance with Section 28-101 of Title 15 of RCNY. No **Contract Work** may take place at a **Site** unless there is a Construction Noise Mitigation Plan or approved Alternative Noise Mitigation Plan in place. In addition, the **Contractor** shall create and implement a noise mitigation training program. Failure to comply with these requirements may result in fines and other penalties pursuant to the applicable provisions of the Administrative Code and RCNY.

5.4 Ultra Low Sulfur Diesel Fuel: In accordance with the provisions of Section 24-163.3 of the Administrative Code, the **Contractor** specifically agrees as follows:

5.4.1 Definitions. For purposes of this Article 5.4, the following definitions apply:

5.4.1(a) "**Contractor**" means any person or entity that enters into a Public Works Contract with a **City Agency**, or any person or entity that enters into an agreement with such person or entity, to perform work or provide labor or services related to such Public Works Contract.

5.4.1(b) "**Motor Vehicle**" means any self-propelled vehicle designed for transporting persons or property on a street or highway.

5.4.1(c) "**Nonroad Engine**" means an internal combustion engine (including the fuel system) that is not used in a Motor Vehicle or a vehicle used solely for competition, or that is not subject to standards promulgated under Section 7411 or Section 7521 of

Title 42 of the United States Code, except that this term shall apply to internal combustion engines used to power generators, compressors or similar equipment used in any construction program or project.

5.4.1(d) "Nonroad Vehicle" means a vehicle that is powered by a Nonroad Engine, fifty (50) horsepower and greater, and that is not a Motor Vehicle or a vehicle used solely for competition, which shall include, but not be limited to, excavators, backhoes, cranes, compressors, generators, bulldozers, and similar equipment, except that this term shall not apply to horticultural maintenance vehicles used for landscaping purposes that are powered by a Nonroad Engine of sixty-five (65) horsepower or less and that are not used in any construction program or project.

5.4.1(e) "Public Works Contract" means a contract with a **City Agency** for a construction program or project involving the construction, demolition, restoration, rehabilitation, repair, renovation, or abatement of any building, structure, tunnel, excavation, roadway, park or bridge; a contract with a **City Agency** for the preparation for any construction program or project involving the construction, demolition, restoration, rehabilitation, repair, renovation, or abatement of any building, structure, tunnel, excavation, roadway, park or bridge; or a contract with a **City Agency** for any final work involved in the completion of any construction program or project involving the construction, demolition, restoration, rehabilitation, repair, renovation, or abatement of any building, structure, tunnel, excavation, roadway, park or bridge.

5.4.1(f) "Ultra Low Sulfur Diesel Fuel" means diesel fuel that has a sulfur content of no more than fifteen parts per million (15 ppm).

5.4.2 Ultra Low Sulfur Diesel Fuel

5.4.2(a) All **Contractors** shall use Ultra Low Sulfur Diesel Fuel in diesel-powered Nonroad Vehicles in the performance of this **Contract**.

5.4.2(b) Notwithstanding the requirements of Article 5.4.2(a), **Contractors** may use diesel fuel that has a sulfur content of no more than thirty parts per million (30 ppm) to fulfill the requirements of this Article 5.4.2, where the Commissioner of the **City** Department of Environmental Protection ("DEP Commissioner") has issued a determination that a sufficient quantity of Ultra Low Sulfur Diesel Fuel is not available to meet the needs of **Agencies** and **Contractors**. Any such determination shall expire after six (6) months unless renewed.

5.4.2(c) **Contractors** shall not be required to comply with this Article 5.4.2 where the **City Agency** letting this **Contract** makes a written finding, which is approved, in writing, by the DEP Commissioner, that a sufficient quantity of Ultra Low Sulfur Diesel Fuel, or diesel fuel that has a sulfur content of no more than thirty parts per million (30 ppm) is not available to meet the requirements of Section 24-163.3 of the Administrative Code, provided that such **Contractor** in its fulfillment of the requirements of this **Contract**, to the extent practicable, shall use whatever quantity of Ultra Low Sulfur Diesel Fuel or diesel fuel that has a sulfur content of no more than thirty parts per million (30 ppm) is available. Any finding made pursuant to this Article 5.4.2(c) shall expire after sixty (60) **Days**, at which time the requirements of this Article 5.4.2 shall be in full force and effect unless the **City Agency** renews the finding in writing and such renewal is approved by the DEP Commissioner.

5.4.2(d) **Contractors** may check on determinations and approvals issued by the DEP Commissioner pursuant to Section 24-163.3 of the Administrative Code, if any, at www.dep.nyc.gov or by contacting the **City Agency** letting this **Contract**.

5.4.2(e) The requirements of this Article 5.4.2 do not apply where they are precluded by federal or State funding requirements or where the **Contract** is an emergency procurement.

5.4.3 Best Available Technology

5.4.3(a) All **Contractors** shall utilize the best available technology for reducing the emission of pollutants for diesel-powered Nonroad Vehicles in the performance of this **Contract**. For determinations of best available technology for each type of diesel-powered Nonroad Vehicle, **Contractors** shall comply with the regulations of the **City Department of Environmental Protection**, as and when adopted, Chapter 14 of Title 15 of the Rules of the City of New York (RCNY). The **Contractor** shall fully document all steps in the best available technology selection process and shall furnish such documentation to the **City Agency** or the DEP Commissioner upon request. The **Contractor** shall retain all documentation generated in the best available technology selection process for as long as the selected best available technology is in use.

5.4.3(b) No **Contractor** shall be required to replace best available technology for reducing the emission of pollutants or other authorized technology utilized for a diesel-powered Nonroad Vehicle in accordance with the provisions of this Article 5.4.3 within three (3) years of having first utilized such technology for such vehicle.

5.4.3(c) This Article 5.4.3 shall not apply to any vehicle used to satisfy the requirements of a specific Public Works Contract for fewer than twenty (20) **Days**.

5.4.3(d) The **Contractor** shall not be required to comply with this Article 5.4.3 with respect to a diesel-powered Nonroad Vehicle under the following circumstances:

5.4.3(d)(i) Where the **City Agency** makes a written finding, which is approved, in writing, by the DEP Commissioner, that the best available technology for reducing the emission of pollutants as required by this Article 5.4.3 is unavailable for such vehicle, the **Contractor** shall use whatever technology for reducing the emission of pollutants, if any, is available and appropriate for such vehicle.

5.4.3(d)(ii) Where the DEP Commissioner has issued a written waiver based upon the **Contractor** having demonstrated to the DEP Commissioner that the use of the best available technology for reducing the emission of pollutants might endanger the operator of such vehicle or those working near such vehicle, due to engine malfunction, the **Contractor** shall use whatever technology for reducing the emission of pollutants, if any, is available and appropriate for such vehicle, which would not endanger the operator of such vehicle or those working near such vehicle.

5.4.3(d)(iii) In determining which technology to use for the purposes of Articles 5.4.3(d)(i) and 5.4.3(d)(ii) above, the **Contractor** shall primarily consider the reduction in emissions of particulate matter and secondarily consider the reduction in emissions of nitrogen oxides associated with the use of such

technology, which shall in no event result in an increase in the emissions of either such pollutant.

5.4.3(d)(iv) The **Contractor** shall submit requests for a finding or a waiver pursuant to this Article 5.4.3(d) in writing to the DEP Commissioner, with a copy to the **ACCO** of the **City Agency** letting this **Contract**. Any finding or waiver made or issued pursuant to Articles 5.4.3(d)(i) and 5.4.3(d)(ii) above shall expire after one hundred eighty (180) **Days**, at which time the requirements of Article 5.4.3(a) shall be in full force and effect unless the **City Agency** renews the finding, in writing, and the DEP Commissioner approves such finding, in writing, or the DEP Commissioner renews the waiver, in writing.

5.4.3(e) The requirements of this Article 5.4.3 do not apply where they are precluded by federal or State funding requirements or where the **Contract** is an emergency procurement.

5.4.4 Section 24-163 of the Administrative Code. The **Contractor** shall comply with Section 24-163 of the Administrative Code related to the idling of the engines of motor vehicles while parking.

5.4.5 Compliance

5.4.5(a) The **Contractor's** compliance with Article 5.4 may be independently monitored. If it is determined that the **Contractor** has failed to comply with any provision of Article 5.4, any costs associated with any independent monitoring incurred by the **City** shall be reimbursed by the **Contractor**.

5.4.5(b) Any **Contractor** who violates any provision of Article 5.4, except as provided in Article 5.4.5(c) below, shall be liable for a civil penalty between the amounts of one thousand (\$1,000) and ten thousand (\$10,000) dollars, in addition to twice the amount of money saved by such **Contractor** for failure to comply with Article 5.4.

5.4.5(c) No **Contractor** shall make a false claim with respect to the provisions of Article 5.4 to a **City Agency**. Where a **Contractor** has been found to have done so, such **Contractor** shall be liable for a civil penalty of twenty thousand (\$20,000) dollars, in addition to twice the amount of money saved by such **Contractor** in association with having made such false claim.

5.4.6 Reporting

5.4.6(a) For all Public Works Contracts covered by this Article 5.4, the **Contractor** shall report to the **City Agency** the following information:

5.4.6(a)(i) The total number of diesel-powered Nonroad Vehicles used to fulfill the requirements of this Public Works Contract;

5.4.6(a)(ii) The number of such Nonroad Vehicles that were powered by Ultra Low Sulfur Diesel Fuel;

5.4.6(a)(iii) The number of such Nonroad Vehicles that utilized the best available technology for reducing the emission of pollutants, including a breakdown by vehicle model and the type of technology;

5.4.6(a)(iv) The number of such Nonroad Vehicles that utilized such other authorized technology in accordance with Article 5.4.3, including a breakdown by vehicle model and the type of technology used for each such vehicle;

5.4.6(a)(v) The locations where such Nonroad Vehicles were used; and

5.4.6(a)(vi) Where a determination is in effect pursuant to Article 5.4.2(b) or 5.4.2(c), detailed information concerning the **Contractor's** efforts to obtain Ultra Low Sulfur Diesel Fuel or diesel fuel that has a sulfur content of no more than thirty parts per million (30 ppm).

5.4.6(b) The **Contractor** shall submit the information required by Article 5.4.6(a) at the completion of **Work** under the Public Works Contract and on a yearly basis no later than August 1 throughout the term of the Public Works Contract. The yearly report shall cover **Work** performed during the preceding fiscal year (July 1 - June 30).

5.5 Ultra Low Sulfur Diesel Fuel. In accordance with the Coordinated Construction Act for Lower Manhattan, as amended:

5.5.1 Definitions. For purposes of this Article 5.5, the following definitions apply:

5.5.1(a) "Lower Manhattan" means the area to the south of and within the following lines: a line beginning at a point where the United States pierhead line in the Hudson River as it exists now or may be extended would intersect with the southerly line of West Houston Street in the Borough of Manhattan extended, thence easterly along the southerly side of West Houston Street to the southerly side of Houston Street, thence easterly along the southerly side of Houston Street to the southerly side of East Houston Street, thence northeasterly along the southerly side of East Houston Street to the point where it would intersect with the United States pierhead line in the East River as it exists now or may be extended, including tax lots within or immediately adjacent thereto.

5.5.1(b) "Lower Manhattan Redevelopment Project" means any project in Lower Manhattan that is funded in whole or in part with federal or State funding, or any project intended to improve transportation between Lower Manhattan and the two air terminals in the **City** known as LaGuardia Airport and John F. Kennedy International Airport, or between Lower Manhattan and the air terminal in Newark known as Newark Liberty International Airport, and that is funded in whole or in part with federal funding.

5.5.1(c) "Nonroad Engine" means an internal combustion engine (including the fuel system) that is not used in a Motor Vehicle or a vehicle used solely for competition, or that is not subject to standards promulgated under Section 7411 or Section 7521 of Title 42 of the United States Code, except that this term shall apply to internal combustion engines used to power generators, compressors or similar equipment used in any construction program or project.

5.5.1(d) "Nonroad Vehicle" means a vehicle that is powered by a Nonroad Engine, fifty (50) horsepower (HP) and greater, and that is not a Motor Vehicle or a vehicle used solely for competition, which shall include, but not be limited to, excavators, backhoes, cranes, compressors, generators, bulldozers, and similar equipment, except

that this terms shall not apply to horticultural maintenance vehicles used for landscaping purposes that are powered by a Nonroad Engine of sixty-five (65) HP or less and that are not used in any construction program or project.

5.5.1(e) "Ultra Low Sulfur Diesel Fuel" means diesel fuel that has a sulfur content of no more than fifteen parts per million (15 ppm).

5.5.2 Requirements. **Contractors and Subcontractors** are required to use only Ultra Low Sulfur Diesel Fuel to power the diesel-powered Nonroad Vehicles with engine HP rating of fifty (50) HP and above used on a Lower Manhattan Redevelopment Project and, where practicable, to reduce the emission of pollutants by retrofitting such Nonroad Vehicles with oxidation catalysts, particulate filters, or technology that achieves lowest particulate matter emissions.

5.6 Pesticides. In accordance with Section 17-1209 of the Administrative Code, to the extent that the **Contractor** or any **Subcontractor** applies pesticides to any property owned or leased by the **City**, the **Contractor**, and any **Subcontractor** shall comply with Chapter 12 of the Administrative Code.

5.7 Waste Treatment, Storage, and Disposal Facilities and Transporters. In connection with the **Work**, the **Contractor** and any **Subcontractor** shall use only those waste treatment, storage, and disposal facilities and waste transporters that possess the requisite license, permit or other governmental approval necessary to treat, store, dispose, or transport the waste, materials or hazardous substances.

5.8 Environmentally Preferable Purchasing. The **Contractor** shall ensure that products purchased or leased by the **Contractor** or any **Subcontractor** for the **Work** that are not specified by the **City** or are submitted as equivalents to a product specified by the **City** comply with the requirements of the New York City Environmentally Preferable Purchasing Program contained in Chapter 11 of Title 43 of the RCNY, pursuant to Chapter 3 of Title 6 of the Administrative Code.

ARTICLE 6. INSPECTION

6.1 During the progress of the **Work** and up to the date of **Final Acceptance**, the **Contractor** shall at all times afford the representatives of the **City** every reasonable, safe, and proper facility for inspecting all **Work** done or being done at the **Site** and also for inspecting the manufacture or preparation of materials and equipment at the place of such manufacture or preparation.

6.2 The **Contractor's** obligation hereunder shall include the uncovering or taking down of finished **Work** and its restoration thereafter; provided, however, that the order to uncover, take down and restore shall be in writing, and further provided that if **Work** thus exposed proves satisfactory, and if the **Contractor** has complied with Article 6.1, such uncovering or taking down and restoration shall be considered an item of **Extra Work** to be paid for in accordance with the provisions of Article 26. If the **Work** thus exposed proves unsatisfactory, the **City** has no obligation to compensate the **Contractor** for the uncovering, taking down or restoration.

6.3 Inspection and approval by the **Commissioner**, the **Engineer**, **Project Manager**, or **Resident Engineer**, of finished **Work** or of **Work** being performed, or of materials and equipment at the place of manufacture or preparation, shall not relieve the **Contractor** of its obligation to perform the **Work** in strict accordance with the **Contract**. Finished or unfinished **Work** not found to be in strict accordance with the **Contract** shall be replaced as directed by the **Engineer**, even though such **Work** may have been previously approved and paid for. Such corrective **Work** is **Contract Work** and shall not be deemed **Extra Work**.

6.4 Rejected **Work** and materials shall be promptly taken down and removed from the **Site**, which must at all times be kept in a reasonably clean and neat condition.

**ARTICLE 7. PROTECTION OF WORK AND OF PERSONS
AND PROPERTY; NOTICES AND INDEMNIFICATION**

7.1 During the performance of the **Work** and up to the date of **Final Acceptance**, the **Contractor** shall be under an absolute obligation to protect the finished and unfinished **Work** against any damage, loss, injury, theft and/or vandalism and in the event of such damage, loss, injury, theft and/or vandalism, it shall promptly replace and/or repair such **Work** at the **Contractor's** sole cost and expense, as directed by the **Resident Engineer**. The obligation to deliver finished **Work** in strict accordance with the **Contract** prior to **Final Acceptance** shall be absolute and shall not be affected by the **Resident Engineer's** approval of, or failure to prohibit, the **Means and Methods of Construction** used by the **Contractor**.

7.2 During the performance of the **Work** and up to the date of **Final Acceptance**, the **Contractor** shall take all reasonable precautions to protect all persons and the property of the **City** and of others from damage, loss or injury resulting from the **Contractor's**, and/or its **Subcontractors'** operations under this **Contract**. The **Contractor's** obligation to protect shall include the duty to provide, place or replace, and adequately maintain at or about the **Site** suitable and sufficient protection such as lights, barricades, and enclosures.

7.3 The **Contractor** shall comply with the notification requirements set forth below in the event of any loss, damage or injury to **Work**, persons or property, or any accidents arising out of the operations of the **Contractor** and/or its **Subcontractors** under this **Contract**.

7.3.1 The **Contractor** shall make a full and complete report in writing to the **Resident Engineer** within three (3) **Days** after the occurrence.

7.3.2 The **Contractor** shall also send written notice of any such event to all insurance carriers that issued potentially responsive policies (including commercial general liability insurance carriers for events relating to the **Contractor's** own employees) no later than twenty (20) days after such event and again no later than twenty (20) days after the initiation of any claim and/or action resulting therefrom. Such notice shall contain the following information: the number of the insurance policy, the name of the Named Insured, the date and location of the incident, and the identity of the persons injured or property damaged. For any policy on which the **City** and/or the **Engineer, Architect, or Project Manager** are Additional Insureds, such notice shall expressly specify that "this notice is being given on behalf of the City of New York as Additional Insured, such other Additional Insureds, as well as the Named Insured."

7.3.2(a) Whenever such notice is sent under a policy on which the **City** is an Additional Insured, the **Contractor** shall provide copies of the notice to the **Comptroller, the Commissioner** and the **City Corporation Counsel**. The copy to the **Comptroller** shall be sent to the Insurance Unit, NYC Comptroller's Office, 1 Centre Street – Room 1222, New York, New York, 10007. The copy to the **Commissioner** shall be sent to the address set forth in Schedule A of the General Conditions. The copy to the **City Corporation Counsel** shall be sent to Insurance Claims Specialist, Affirmative Litigation Division, New York City Law Department, 100 Church Street, New York, New York 10007.

7.3.2(b) If the **Contractor** fails to provide any of the foregoing notices to any appropriate insurance carrier(s) in a timely and complete manner, the **Contractor** shall indemnify the **City** for all losses, judgments, settlements, and expenses, including reasonable attorneys' fees, arising from an insurer's disclaimer of coverage citing late notice by or on behalf of the **City**.

7.4 To the fullest extent permitted by law, the **Contractor** shall defend, indemnify, and hold the **City**, its employees, and officials (the "Indemnitees") harmless against any and all claims (including but not limited to claims asserted by any employee of the **Contractor** and/or its **Subcontractors**) and costs and expenses of whatever kind (including but not limited to payment or reimbursement of attorneys' fees and disbursements) allegedly arising out of or in any way related to the operations of the **Contractor** and/or its **Subcontractors** in the performance of this **Contract** or from the **Contractor's** and/or its **Subcontractors'** failure to comply with any of the provisions of this **Contract** or of the **Law**. Such costs and expenses shall include all those incurred in defending the underlying claim and those incurred in connection with the enforcement of this Article 7.4 by way of cross-claim, third-party claim, declaratory action or otherwise. The parties expressly agree that the indemnification obligation hereunder contemplates (1) full indemnity in the event of liability imposed against the Indemnitees without negligence and solely by reason of statute, operation of **Law** or otherwise; and (2) partial indemnity in the event of any actual negligence on the part of the Indemnitees either causing or contributing to the underlying claim (in which case, indemnification will be limited to any liability imposed over and above that percentage attributable to actual fault whether by statute, by operation of **Law**, or otherwise). Where partial indemnity is provided hereunder, all costs and expenses shall be indemnified on a pro rata basis.

7.4.1 Indemnification under Article 7.4 or any other provision of the **Contract** shall operate whether or not **Contractor** or its **Subcontractors** have placed and maintained the insurance specified under Article 22.

7.5 The provisions of this Article 7 shall not be deemed to create any new right of action in favor of third parties against the **Contractor** or the **City**.

CHAPTER III TIME PROVISIONS

ARTICLE 8. COMMENCEMENT AND PROSECUTION OF THE WORK

8.1 The **Contractor** shall commence the **Work** on the date specified in the **Notice to Proceed** or the **Order to Work**. The time for performance of the **Work** under the **Contract** shall be computed from the date specified in the **Notice to Proceed** or the **Order to Work**. **TIME BEING OF THE ESSENCE** to the **City**, the **Contractor** shall thereafter prosecute the **Work** diligently, using such **Means and Methods of Construction** as are in accord with Article 4 herein and as will assure its completion not later than the date specified in this **Contract**, or on the date to which the time for completion may be extended.

ARTICLE 9. PROGRESS SCHEDULES

9.1 To enable the **Work** to be performed in an orderly and expeditious manner, the **Contractor**, within fifteen (15) **Days** after the **Notice to Proceed** or **Order to Work**, unless otherwise directed by the **Engineer**, shall submit to the **Engineer** a proposed progress schedule based on the Critical Path Method in the form of a bar graph or in such other form as specified by the **Engineer**, and monthly cash flow requirements, showing:

9.1.1 The anticipated time of commencement and completion of each of the various operations to be performed under this **Contract**; and

9.1.2 The sequence and interrelation of each of these operations with the others and with those of other related contracts; and

9.1.3 The estimated time required for fabrication or delivery, or both, of all materials and equipment required for the **Work**, including the anticipated time for obtaining required approvals pursuant to Article 10; and

9.1.4 The estimated amount in dollars the **Contractor** will claim on a monthly basis.

9.2 The proposed schedule shall be revised as directed by the **Engineer**, until finally approved by the **Engineer**, and after such approval, subject to the provisions of Article 11, shall be strictly adhered to by the **Contractor**.

9.3 If the **Contractor** shall fail to adhere to the approved progress schedule, or to the schedule as revised pursuant to Article 11, it shall promptly adopt such other or additional **Means and Methods of Construction**, at its sole cost and expense, as will make up for the time lost and will assure completion in accordance with the approved progress schedule. The approval by the **City** of a progress schedule which is shorter than the time allotted under the **Contract** shall not create any liability for the **City** if the approved progress schedule is not met.

9.4 The **Contractor** will not receive any payments until the proposed progress schedule is submitted.

ARTICLE 10. REQUESTS FOR INFORMATION OR APPROVAL

10.1 From time to time as the **Work** progresses and in the sequence indicated by the approved progress schedule, the **Contractor** shall submit to the **Engineer** a specific request in writing for each item of information or approval required by the **Contractor**. These requests shall state the latest date upon which the information or approval is actually required by the **Contractor**, and shall be submitted in a reasonable time in advance thereof to provide the **Engineer** a sufficient time to act upon such submissions, or any necessary re-submissions thereof.

10.2 The **Contractor** shall not have any right to an extension of time on account of delays due to the **Contractor's** failure to submit requests for the required information or the required approval in accordance with the above requirements.

ARTICLE 11. NOTICE OF CONDITIONS CAUSING DELAY AND DOCUMENTATION OF DAMAGES CAUSED BY DELAY

11.1 After the commencement of any condition which is causing or may cause a delay in completion of the **Work**, including conditions for which the **Contractor** may be entitled to an extension of time, the following notifications and submittals are required:

11.1.1 Within seven (7) **Days** after the commencement of such condition, the **Contractor** must notify the **Engineer** in writing of the existence, nature and effect of such condition upon the approved progress schedule and the **Work**, and must state why and in what respects, if any, the condition is causing or may cause a delay.

11.1.2 If the **Contractor** shall claim to be sustaining damages for delay as provided for in this Article 11, within forty-five (45) **Days** from the time such damages are first incurred, and every thirty (30) **Days** thereafter for as long as such damages are being incurred, the **Contractor** shall submit to the **Commissioner** verified written statements of the details and the amounts of such damages, together with documentary evidence of such damages, ("statement of delay damages") as further detailed in Article 11.6. The **Contractor** may submit any of the above statements within such additional time as may be granted by the **Commissioner** in writing upon written request therefor. On failure of the **Contractor** to strictly comply with all of the foregoing provisions, such claims shall be deemed waived and no right to recover on such claims shall exist. Damages that the **Contractor** may claim in any action arising under or by reason of this **Contract** shall not be different from or in excess of the statements made and documentation provided pursuant to this Article 11.

11.1.3 Within 60 days of submission of the final verified statement of claims pursuant to Article 44, the **Commissioner** shall make a determination as to whether a compensable delay has occurred and, if so, the amount of compensation due the **Contractor**. Notwithstanding the above, the **Commissioner** may make a determination as to whether a compensable delay has occurred at any time after the **Contractor's** first submission of a statement of delay damages provided, however, that the amount of compensation due to the **Contractor** will not be determined until the **Commissioner** determines that the **Work** is delayed after the date set for substantial completion.

11.2 Failure of the **Contractor** to strictly comply with the requirements of Article 11.1.1 may, in the discretion of the **Commissioner**, be deemed sufficient cause to deny any extension of time on account of delay arising out of such condition. Failure of the **Contractor** to strictly comply with the requirements of Articles 11.1.1 and 11.1.2 shall be deemed a conclusive waiver by the **Contractor** of any and all claims for damages for delay arising from such condition and no right to recover on such claims shall exist.

11.3 When appropriate and directed by the **Engineer**, the progress schedule shall be revised by the **Contractor** until finally approved by the **Engineer**. The revised progress schedule must be strictly adhered to by the **Contractor**.

11.4 Compensable Delays

11.4.1 The **Contractor** agrees to make claim only for additional costs attributable to delay in the performance of this **Contract** necessarily extending the time for completion of the **Work** or resulting from acceleration directed by the **Commissioner** and required to maintain the **Project** schedule, occasioned solely by any act or omission to act of the **City** listed below. The **Contractor** also agrees that delay from any other cause shall be compensated, if at all, solely by an extension of time to complete the performance of the **Work**.

11.4.1.1 The failure of the **City** to take reasonable measures to coordinate and progress the **Work**, except that the **City** shall not be responsible for the **Contractor's** obligation to coordinate and progress the **Work** of its **Subcontractors**.

11.4.1.2 Extended delays attributable to the **City** in the review or issuance of change orders, in shop drawing reviews and approvals or as a result of the cumulative impact of multiple change orders, which have a verifiable impact on **Project** costs.

11.4.1.3 The unavailability of the **Site** for an extended period of time that significantly affects the scheduled completion of the **Contract**.

- 11.4.1.4 The issuance by the **Engineer** of a stop work order relative to a substantial portion of the **Work** for a period exceeding thirty (30) **Days**, that was not brought about through any action or omission of the **Contractor**.
- 11.4.1.5 Differing site conditions that were neither known nor reasonably ascertainable on a pre-bid inspection of the **Site** or review of the bid documents or other publicly available sources, and that are not ordinarily encountered in the **Project's** geographical area or neighborhood or in the type of **Work** to be performed.
- 11.4.1.6 Delays caused by the **City's** bad faith or its willful, malicious, or grossly negligent conduct;
- 11.4.1.7 Delays not contemplated by the parties;
- 11.4.1.8 Delays so unreasonable that they constitute an intentional abandonment of the **Contract** by the **City**; and
- 11.4.1.9 Delays resulting from the **City's** breach of a fundamental obligation of the **Contract**.

11.4.2 No claim may be made for any alleged delay in **Substantial Completion** of the **Work** by a date earlier than the date of **Substantial Completion** provided for in Schedule A unless there is a provision in the **Contract** providing for additional compensation for early completion. No claim may be made for any alleged delay in **Substantial Completion** of the **Work** if the work is substantially completed by the date of **Substantial Completion** provided for in Schedule A unless acceleration has been directed by the **Commissioner** to meet the date of **Substantial Completion** set forth in Schedule A.

11.4.3 The provisions of this Article 11 apply only to claims for additional costs attributable to delay and do not preclude determinations by the **Commissioner** allowing reimbursements for additional costs for **Extra Work** pursuant to Articles 25 and 26 of this **Contract**. To the extent that any cost attributable to delay is reimbursed as part of a change order, no additional claim for compensation under this Article 11 shall be allowed.

11.5 Non-Compensable Delays. The **Contractor** agrees to make no claim for, and is deemed to have included in its bid prices for the various items of the **Contract**, the extra/additional costs attributable to any delays caused by or attributable to the items set forth below. For such items, the **Contractor** shall be compensated, if at all, solely by an extension of time to complete the performance of the **Work**, in accordance with the provisions of Article 13. Such extensions of time will be granted, if at all, pursuant to the grounds set forth in Article 13.3.

11.5.1 The acts or omissions of any third parties, including but not limited to **Other Contractors**, public/ governmental bodies (other than **City Agencies**), utilities or private enterprises, who are disclosed in the **Contract Documents** or are ordinarily encountered or generally recognized as related to the **Work**;

11.5.2 Any situation which was within the contemplation of the parties at the time of entering into the **Contract**, including any delay indicated or disclosed in the **Contract Documents** or generally recognized as related to the nature of the **Work**, and/or the existence of any facility or appurtenance owned, operated or maintained by any third party, as indicated or disclosed in the **Contract Documents** or ordinarily encountered or generally recognized as related to the nature of the **Work**;

11.5.3 Restraining orders, injunctions or judgments issued by a court which were caused by a Contractor's submission, action or inaction or by a Contractor's **Means and Methods of**

Construction, or by third parties, unless such order, injunction or judgment was the result of an action or omission by the **City**;

11.5.4 Any labor boycott, strike, picketing, lockout or similar situation;

11.5.5 Any shortages of supplies or materials, or unavailability of equipment, required by the **Contract Work**;

11.5.6 Climatic conditions, storms, floods, droughts, tidal waves, fires, hurricanes, earthquakes, landslides or other catastrophes or acts of God, or acts of war or of the public enemy or terrorist acts, including the **City's** reasonable responses thereto; and

11.5.7 **Extra Work** which does not significantly affect the overall completion of the **Contract**, reasonable delays in the review or issuance of change orders or field orders and/or in shop drawing reviews or approvals.

11.6 Required Content of Submission of Statement of Delay Damages

11.6.1 In the verified written statement of delay damages required by Article 11.1.2, the following information shall be provided by the **Contractor**:

11.6.1.1 For each delay, the start and end dates of the claimed periods of delay and, in addition, a description of the operations that were delayed, an explanation of how they were delayed, and the reasons for the delay, including identifying the applicable act or omission of the **City** listed in Article 11.4.

11.6.1.2 A detailed factual statement of the claim providing all necessary dates, locations and items of **Work** affected by the claim.

11.6.1.3 The amount of additional compensation sought and a breakdown of that amount into categories as described in Article 26.2, subject to the limitations set forth in Article 11.7.

11.6.1.4 Any additional information requested by the **Commissioner**.

11.7 Recoverable Costs

11.7.1 Delay damages may be recoverable for the following costs actually and necessarily incurred in the performance of the **Work**:

11.7.1.1 Direct labor, including payroll taxes (subject to statutory wage caps) and supplemental benefits, based on time and materials records;

11.7.1.2 Necessary materials (including transportation to the **Site**), based on time and material records;

11.7.1.3 Reasonable rental value of necessary plant and equipment other than small tools, plus fuel/energy costs according to the applicable formula set forth in Articles 26.2.4 and/or 26.2.8, based on time and material records;

11.7.1.4 Insurance and bond costs;

11.7.1.5 Extended field office costs;

11.7.1.6 Extended **Site** overhead; and

11.7.1.7 Extended home office overhead.

11.7.2 Recoverable Subcontractor Costs. When the **Work** is performed by a **Subcontractor**, the **Contractor** may be paid the actual and necessary costs of such subcontracted **Work** as outlined above in Articles 11.7.1.1 through 11.7.1.6, and an

additional overhead of five (5%) percent of the costs outlined in Articles 11.7.1.1 through 11.7.1.3.

11.7.3 Non-Recoverable Costs. The parties agree that the **City** will have no liability for the following items and the **Contractor** agrees it shall make no claim for the following items:

11.7.3.1 Profit, or loss of anticipated or unanticipated profit;

11.7.3.2 Consequential damages, including but not limited to interest on monies in dispute, including interest which is paid on such monies, loss of bonding capacity, bidding opportunities, or interest in investment, or any resulting insolvency;

11.7.3.3 Indirect costs or expenses of any nature;

11.7.3.4 Direct or indirect costs attributable to performance of **Work** where the **Contractor**, because of situations or conditions within its control, has not progressed the **Work** in a satisfactory manner; and

11.7.3.5 Attorneys' fees and dispute and claims preparation expenses.

11.8 Determinations under this Article 11 are not subject to the jurisdiction of the Contract Dispute Resolution Board pursuant to the dispute resolution process set forth in Article 27.

11.9 If the parties agree, pursuant to Article 11.1.3 above, that a compensable delay has occurred and agree on the amount of compensation, payment may be made pursuant to a written change order. Payment pursuant to such change order is subject to pre-audit by the **Engineering Audit Officer**, and may be post-audited by the **Comptroller** and/or the **Agency**.

ARTICLE 12. COORDINATION WITH OTHER CONTRACTORS

12.1 During the progress of the **Work**, **Other Contractors** may be engaged in performing other work or may be awarded other contracts for additional work on this **Project**. In that event, the **Contractor** shall coordinate the **Work** to be done hereunder with the work of such **Other Contractors** and the **Contractor** shall fully cooperate with such **Other Contractors** and carefully fit its own **Work** to that provided under other contracts as may be directed by the **Engineer**. The **Contractor** shall not commit or permit any act which will interfere with the performance of work by any **Other Contractors**.

12.2 If the **Engineer** determines that the **Contractor** is failing to coordinate its **Work** with the work of **Other Contractors** as the **Engineer** has directed, then the **Commissioner** shall have the right to withhold any payments otherwise due hereunder until the **Contractor** completely complies with the **Engineer's** directions.

12.3 The **Contractor** shall notify the **Engineer** in writing if any **Other Contractor** on this **Project** is failing to coordinate its work with the **Work** of this **Contract**. If the **Engineer** finds such charges to be true, the **Engineer** shall promptly issue such directions to the **Other Contractor** with respect thereto as the situation may require. The **City** shall not, however, be liable for any damages suffered by any **Other Contractor's** failure to coordinate its work with the **Work** of this **Contract** or by reason of the **Other Contractor's** failure to promptly comply with the directions so issued by the **Engineer**, or by reason of any **Other Contractor's** default in performance, it being understood that the **City** does not guarantee the responsibility or continued efficiency of any contractor. The **Contractor** agrees to make no claim against

the **City** for any damages relating to or arising out of any directions issued by the **Engineer** pursuant to this Article 12 (including but not limited to the failure of any **Other Contractor** to comply or promptly comply with such directions), or the failure of the **Engineer** to issue any directions, or the failure of any **Other Contractor** to coordinate its work, or the default in performance of any **Other Contractor**.

12.4 The **Contractor** shall indemnify and hold the **City** harmless from any and all claims or judgments for damages and from costs and expenses to which the **City** may be subjected or which it may suffer or incur by reason of the **Contractor's** failure to comply with the **Engineer's** directions promptly; and the **Comptroller** shall have the right to exercise the powers reserved in Article 23 with respect to any claims which may be made for damages due to the **Contractor's** failure to comply with the **Engineer's** directions promptly. Insofar as the facts and **Law** relating to any claim would preclude the **City** from being completely indemnified by the **Contractor**, the **City** shall be partially indemnified by the **Contractor** to the fullest extent provided by **Law**.

12.5 Should the **Contractor** sustain any damage through any act or omission of any **Other Contractor** having a contract with the **City** for the performance of work upon the **Site** or of work which may be necessary to be performed for the proper prosecution of the **Work** to be performed hereunder, or through any act or omission of a subcontractor of such **Other Contractor**, the **Contractor** shall have no claim against the **City** for such damage, but shall have a right to recover such damage from the **Other Contractor** under the provision similar to the following provisions which apply to this **Contract** and have been or will be inserted in the contracts with such **Other Contractors**:

12.5.1 Should any **Other Contractor** having or who shall hereafter have a contract with the **City** for the performance of work upon the **Site** sustain any damage through any act or omission of the **Contractor** hereunder or through any act or omission of any **Subcontractor** of the **Contractor**, the **Contractor** agrees to reimburse such **Other Contractor** for all such damages and to defend at its own expense any action based upon such claim and if any judgment or claim (even if the allegations of the action are without merit) against the **City** shall be allowed the **Contractor** shall pay or satisfy such judgment or claim and pay all costs and expenses in connection therewith and agrees to indemnify and hold the **City** harmless from all such claims. Insofar as the facts and **Law** relating to any claim would preclude the **City** from being completely indemnified by the **Contractor**, the **City** shall be partially indemnified by the **Contractor** to the fullest extent provided by **Law**.

12.6 The **City's** right to indemnification hereunder shall in no way be diminished, waived or discharged by its recourse to assessment of liquidated damages as provided in Article 15, or by the exercise of any other remedy provided for by **Contract** or by **Law**.

ARTICLE 13. EXTENSION OF TIME FOR PERFORMANCE

13.1 If performance by the **Contractor** is delayed for a reason set forth in Article 13.3, the **Contractor** may be allowed a reasonable extension of time in conformance with this Article 13 and the **PPB Rules**.

13.2 Any extension of time may be granted only by the **ACCO** or by the Board for the Extension of Time (hereafter "**Board**") (as set forth below) upon written application by the **Contractor**.

13.3 Grounds for Extension: If such application is made, the **Contractor** shall be entitled to an extension of time for delay in completion of the **Work** caused solely:

13.3.1 By the acts or omissions of the **City**, its officials, agents or employees; or

13.3.2 By the act or omissions of **Other Contractors** on this **Project**; or

13.3.3 By supervening conditions entirely beyond the control of either party hereto (such as, but not limited to, acts of God or the public enemy, excessive inclement weather, war or other national emergency making performance temporarily impossible or illegal, or strikes or labor disputes not brought about by any act or omission of the **Contractor**).

13.3.4 The **Contractor** shall, however, be entitled to an extension of time for such causes only for the number of **Days** of delay which the **ACCO** or the Board may determine to be due solely to such causes, and then only if the **Contractor** shall have strictly complied with all of the requirements of Articles 9 and 10.

13.4 The **Contractor** shall not be entitled to receive a separate extension of time for each of several causes of delay operating concurrently, but, if at all, only for the actual period of delay in completion of the **Work** as determined by the **ACCO** or the Board, irrespective of the number of causes contributing to produce such delay. If one of several causes of delay operating concurrently results from any act, fault or omission of the **Contractor** or of its **Subcontractors** or **Materialmen**, and would of itself (irrespective of the concurrent causes) have delayed the **Work**, no extension of time will be allowed for the period of delay resulting from such act, fault or omission.

13.5 The determination made by the **ACCO** or the Board on an application for an extension of time shall be binding and conclusive on the **Contractor**.

13.6 The **ACCO** or the Board acting entirely within their discretion may grant an application for an extension of time for causes of delay other than those herein referred.

13.7 Permitting the **Contractor** to continue with the **Work** after the time fixed for its completion has expired, or after the time to which such completion may have been extended has expired, or the making of any payment to the **Contractor** after such time, shall in no way operate as a waiver on the part of the **City** of any of its rights under this **Contract**.

13.8 Application for Extension of Time:

13.8.1 Before the **Contractor's** time extension request will be considered, the **Contractor** shall notify the **ACCO** of the condition which allegedly has caused or is causing the delay, and shall submit a written application to the **ACCO** identifying:

13.8.1(a) The **Contractor**; the registration number; and **Project** description;

13.8.1(b) Liquidated damage assessment rate, as specified in the **Contract**;

13.8.1(c) Original total bid price;

13.8.1(d) The original **Contract** start date and completion date;

13.8.1(e) Any previous time extensions granted (number and duration); and

13.8.1(f) The extension of time requested.

13.8.2 In addition, the application for extension of time shall set forth in detail:

13.8.2(a) The nature of each alleged cause of delay in completing the **Work**;

13.8.2(b) The date upon which each such cause of delay began and ended and the number of **Days** attributable to each such cause;

13.8.2(c) A statement that the **Contractor** waives all claims except for those delineated in the application, and the particulars of any claims which the **Contractor** does not agree to waive. For time extensions for **Substantial Completion** and final completion payments, the application shall include a detailed statement of the dollar amounts of each element of claim item reserved; and

13.8.2(d) A statement indicating the **Contractor's** understanding that the time extension is granted only for purposes of permitting continuation of **Contract** performance and payment for **Work** performed and that the **City** retains its right to conduct an investigation and assess liquidated damages as appropriate in the future.

13.9 Analysis and Approval of Time Extensions:

13.9.1 For time extensions for partial payments, a written determination shall be made by the **ACCO** who may, for good and sufficient cause, extend the time for the performance of the **Contract** as follows:

13.9.1(a) If the **Work** is to be completed within six (6) months, the time for performance may be extended for sixty (60) **Days**;

13.9.1(b) If the **Work** is to be completed within less than one (1) year but more than six (6) months, an extension of ninety (90) **Days** may be granted;

13.9.1(c) If the **Contract** period exceeds one (1) year, besides the extension granted in Article 13.9.1(b), an additional thirty (30) **Days** may be granted for each multiple of six (6) months involved beyond the one (1) year period; or

13.9.1(d) If exceptional circumstances exist, the **ACCO** may extend the time for performance beyond the extensions in Articles 13.9.1(a), 13.9.1(b), and 13.9.1(c). In that event, the **ACCO** shall file with the Mayor's Office of Contract Services a written explanation of the exceptional circumstances.

13.9.2 For extensions of time for **Substantial Completion** and final completion payments, the **Engineer**, in consultation with the **ACCO**, shall prepare a written analysis of the delay (including a preliminary determination of the causes of delay, the beginning and end dates for each such cause of delay, and whether the delays are excusable under the terms of this **Contract**). The report shall be subject to review by and approval of the Board, which shall have authority to question its analysis and determinations and request additional facts or documentation. The report as reviewed and made final by the Board shall be made a part of the **Agency** contract file. Neither the report itself nor anything contained therein shall operate as a waiver or release of any claim the **City** may have against the **Contractor** for either actual or liquidated damages.

13.9.3 Approval Mechanism for Time Extensions for **Substantial Completion** or Final Completion Payments: An extension shall be granted only with the approval of the Board which is comprised of the **ACCO** of the **Agency**, the **City** Corporation Counsel, and the **Comptroller**, or their authorized representatives.

13.9.4 Neither the granting of any application for an extension of time to the **Contractor** or any **Other Contractor** on this **Project** nor the papers, records or reports related to any application for or grant of an extension of time or determination related thereto shall be referred to or offered in evidence by the **Contractor** or its attorneys in any action or proceeding.

13.10 No Damage for Delay: The **Contractor** agrees to make no claim for damages for delay in the performance of this **Contract** occasioned by any act or omission to act of the **City** or any of its representatives, except as provided for in Article 11.

ARTICLE 14. COMPLETION AND FINAL ACCEPTANCE OF THE WORK

14.1 Date for **Substantial Completion**: The **Contractor** shall substantially complete the **Work** within the time fixed in Schedule A of the General Conditions, or within the time to which such **Substantial Completion** may be extended.

14.2 Determining the Date of **Substantial Completion**: The **Work** will be deemed to be substantially complete when the two conditions set forth below have been met.

14.2.1 Inspection: The **Engineer** has inspected the **Work** and has made a written determination that it is substantially complete.

14.2.2 Approval of **Final Approved Punch List** and Date for **Final Acceptance**: Following inspection of the **Work**, the **Engineer** shall furnish the **Contractor** with a final punch list, specifying all items of **Work** to be completed and proposing dates for the completion of each specified item of **Work**. The **Contractor** shall then submit in writing to the **Engineer** within ten (10) **Days** of the **Engineer** furnishing the final punch list either acceptance of the dates or proposed alternative dates for the completion of each specified item of **Work**. If the **Contractor** proposes alternative dates, then, within a reasonable time after receipt, the **Engineer**, in a written notification to the **Contractor**, shall approve the **Contractor's** completion dates or, if they are unable to agree, the **Engineer** shall establish dates for the completion of each item of **Work**. If the **Contractor** neither accepts the dates nor proposes alternative dates within ten (10) **Days**, the schedule proposed by the **Engineer** shall be deemed accepted. The latest completion date specified shall be the date for **Final Acceptance** of the **Work**.

14.3 Date of **Substantial Completion**. The date of approval of the **Final Approved Punch List**, shall be the date of **Substantial Completion**. The date of approval of the **Final Approved Punch List** shall be either (a) if the **Contractor** approves the final punch list and proposed dates for completion furnished by the **Engineer**, the date of the **Contractor's** approval; or (b) if the **Contractor** neither accepts the dates nor proposes alternative dates, ten (10) **Days** after the **Engineer** furnishes the **Contractor** with a final punch list and proposed dates for completion; or (c) if the **Contractor** proposes alternative dates, the date that the **Engineer** sends written notification to the **Contractor** either approving the **Contractor's** proposed alternative dates or establishing dates for the completion for each item of **Work**.

14.4 Determining the Date of **Final Acceptance**: The **Work** will be accepted as final and complete as of the date of the **Engineer's** inspection if, upon such inspection, the **Engineer** finds that all items on the **Final Approved Punch List** are complete and no further **Work** remains to be done. The **Commissioner** will then issue a written determination of **Final Acceptance**.

14.5 Request for Inspection: Inspection of the **Work** by the **Engineer** for the purpose of **Substantial Completion** or **Final Acceptance** shall be made within ten (10) **Days** after receipt of the **Contractor's** written request therefor.

14.6 Request for Re-inspection: If upon inspection for the purpose of **Substantial Completion** or **Final Acceptance**, the **Engineer** determines that there are items of **Work** still to be performed, the **Contractor** shall promptly perform them and then request a re-inspection. If upon re-inspection, the **Engineer** determines that the **Work** is substantially complete or finally accepted, the date of such re-inspection shall be the date of **Substantial Completion** or **Final Acceptance**. Re-inspection by the **Engineer** shall be made within ten (10) **Days** after receipt of the **Contractor's** written request therefor.

14.7 Initiation of Inspection by the **Engineer**: If the **Contractor** does not request inspection or re-inspection of the **Work** for the purpose of **Substantial Completion** or **Final Acceptance**, the **Engineer** may initiate such inspection or re-inspection.

ARTICLE 15. LIQUIDATED DAMAGES

15.1 In the event the **Contractor** fails to substantially complete the **Work** within the time fixed for such **Substantial Completion** in Schedule A of the General Conditions, plus authorized time extensions, or if the **Contractor**, in the sole determination of the **Commissioner**, has abandoned the **Work**, the **Contractor** shall pay to the **City** the sum fixed in Schedule A of the General Conditions, for each and every **Day** that the time consumed in substantially completing the **Work** exceeds the time allowed therefor; which said sum, in view of the difficulty of accurately ascertaining the loss which the **City** will suffer by reason of delay in the **Substantial Completion** of the **Work** hereunder, is hereby fixed and agreed as the liquidated damages that the **City** will suffer by reason of such delay, and not as a penalty. This Article 15 shall also apply to the **Contractor** whether or not the **Contractor** is defaulted pursuant to Chapter X of this **Contract**. Neither the failure to assess liquidated damages nor the granting of any time extension shall operate as a waiver or release of any claim the **City** may have against the **Contractor** for either actual or liquidated damages.

15.2 Liquidated damages received hereunder are not intended to be nor shall they be treated as either a partial or full waiver or discharge of the **City's** right to indemnification, or the **Contractor's** obligation to indemnify the **City**, or to any other remedy provided for in this **Contract** or by **Law**.

15.3 The **Commissioner** may deduct and retain out of the monies which may become due hereunder, the amount of any such liquidated damages; and in case the amount which may become due hereunder shall be less than the amount of liquidated damages suffered by the **City**, the **Contractor** shall be liable to pay the difference.

ARTICLE 16. OCCUPATION OR USE PRIOR TO COMPLETION

16.1 Unless otherwise provided for in the **Specifications**, the **Commissioner** may take over, use, occupy or operate any part of the **Work** at any time prior to **Final Acceptance**, upon written notification to the **Contractor**. The **Engineer** shall inspect the part of the **Work** to be taken over, used, occupied, or operated, and will furnish the **Contractor** with a written statement of the **Work**, if any, which remains to be performed on such part. The **Contractor** shall not object to, nor interfere with, the **Commissioner's** decision to exercise the rights granted by Article 16. In the event the **Commissioner** takes over, uses, occupies, or operates any part of the **Work**:

16.1.1 the **Engineer** shall issue a written determination of **Substantial Completion** with respect to such part of the **Work**;

16.1.2 the **Contractor** shall be relieved of its absolute obligation to protect such part of the unfinished **Work** in accordance with Article 7;

16.1.3 the **Contractor's** guarantee on such part of the **Work** shall begin on the date of such use by the **City**; and;

16.1.4 the **Contractor** shall be entitled to a return of so much of the amount retained in accordance with Article 21 as it relates to such part of the **Work**, except so much thereof as may be retained under Articles 24 and 44.

CHAPTER IV SUBCONTRACTS AND ASSIGNMENTS

ARTICLE 17. SUBCONTRACTS

17.1 The **Contractor** shall not make subcontracts totaling an amount more than the percentage of the total **Contract** price fixed in Schedule A of the General Conditions, without prior written permission from the **Commissioner**. All subcontracts made by the **Contractor** shall be in writing. No **Work** may be performed by a **Subcontractor** prior to the **Contractor** entering into a written subcontract with the **Subcontractor** and complying with the provisions of this Article 17.

17.2 Before making any subcontracts, the **Contractor** shall submit a written statement to the **Commissioner** giving the name and address of the proposed **Subcontractor**; the portion of the **Work** and materials which it is to perform and furnish; the cost of the subcontract; the VENDEX questionnaire if required; the proposed subcontract if requested by the **Commissioner**; and any other information tending to prove that the proposed **Subcontractor** has the necessary facilities, skill, integrity, past experience, and financial resources to perform the **Work** in accordance with the terms and conditions of this **Contract**.

17.3 In addition to the requirements in Article 17.2, **Contractor** is required to list the **Subcontractor** in the web based Subcontractor Reporting System through the City's Payee Information Portal (PIP), available at www.nyc.gov/pip.¹ For each **Subcontractor** listed, **Contractor** is required to provide the following information: maximum contract value, description of **Subcontractor's** Work, start and end date of the subcontract and identification of the **Subcontractor's** industry. Thereafter, **Contractor** will be required to report in the system the payments made to each **Subcontractor** within 30 days of making the payment. If any of the required information changes throughout the Term of the **Contract**, **Contractor** will be required to revise the information in the system.

Failure of the **Contractor** to list a **Subcontractor** and/or to report **Subcontractor** payments in a timely fashion may result in the **Commissioner** declaring the **Contractor** in default of the **Contract** and will subject **Contractor** to liquidated damages in the amount of \$100 per day for each day that the **Contractor** fails to identify a **Subcontractor** along with the required information about the **Subcontractor** and/or fails to report payments to a **Subcontractor**, beyond the time frames set forth herein or in the notice from the **City**. Article 15 shall govern the issue of liquidated damages.

¹ In order to use the new system, a PIP account will be required. Detailed instructions on creating a PIP account and using the new system are also available at www.nyc.gov/pip. Additional assistance with PIP may be obtained by emailing the Financial Information Services Agency Help Desk at pip@fisa.nyc.gov.

17.4 If an approved **Subcontractor** elects to subcontract any portion of its subcontract, the proposed sub-subcontract shall be submitted in the same manner as directed above.

17.5 The **Commissioner** will notify the **Contractor** in writing whether the proposed **Subcontractor** is approved. If the proposed **Subcontractor** is not approved, the **Contractor** may submit another proposed **Subcontractor** unless the **Contractor** decides to do the **Work**. No **Subcontractor** shall be permitted to enter or perform any work on the **Site** unless approved.

17.6 Before entering into any subcontract hereunder, the **Contractor** shall provide the proposed **Subcontractor** with a complete copy of this document and inform the proposed **Subcontractor** fully and completely of all provisions and requirements of this **Contract** relating either directly or indirectly to the **Work** to be performed and the materials to be furnished under such subcontract, and every such **Subcontractor** shall expressly stipulate that all labor performed and materials furnished by the **Subcontractor** shall strictly comply with the requirements of this **Contract**.

17.7 Documents given to a prospective **Subcontractor** for the purpose of soliciting the **Subcontractor's** bid shall include either a copy of the bid cover or a separate information sheet setting forth the **Project** name, the **Contract** number (if available), the **Agency** (as noted in Article 2.1.6), and the **Project's** location.

17.8 The **Commissioner's** approval of a **Subcontractor** shall not relieve the **Contractor** of any of its responsibilities, duties, and liabilities hereunder. The **Contractor** shall be solely responsible to the **City** for the acts or defaults of its **Subcontractor** and of such **Subcontractor's** officers, agents, and employees, each of whom shall, for this purpose, be deemed to be the agent or employee of the **Contractor** to the extent of its subcontract.

17.9 If the **Subcontractor** fails to maintain the necessary facilities, skill, integrity, past experience, and financial resources (other than due to the **Contractor's** failure to make payments where required) to perform the **Work** in accordance with the terms and conditions of this **Contract**, the **Contractor** shall promptly notify the **Commissioner** and replace such **Subcontractor** with a newly approved **Subcontractor** in accordance with this Article 17.

17.10 The **Contractor** shall be responsible for ensuring that all **Subcontractors** performing **Work** at the **Site** maintain all insurance required by **Law**.

17.11 The **Contractor** shall promptly, upon request, file with the **Engineer** a conformed copy of the subcontract and its cost. The subcontract shall provide the following:

17.11.1 **Payment to Subcontractors:** The agreement between the **Contractor** and its **Subcontractor** shall contain the same terms and conditions as to method of payment for **Work**, labor, and materials, and as to retained percentages, as are contained in this **Contract**.

17.11.2 **Prevailing Rate of Wages:** The agreement between the **Contractor** and its **Subcontractor** shall include the prevailing wage rates and supplemental benefits to be paid in accordance with Labor Law Section 220.

17.11.3 **Section 6-123 of the Administrative Code:** Pursuant to the requirements of Section 6-123 of the Administrative Code, every agreement between the **Contractor** and a **Subcontractor** in excess of fifty thousand (\$50,000) dollars shall include a provision that the **Subcontractor** shall not engage in any unlawful discriminatory practice as defined in Title VIII of the Administrative Code (Section 8-101 *et seq.*).

17.11.4 All requirements required pursuant to federal and/or state grant agreement(s), if applicable to the **Work**.

17.12 The **Commissioner** may deduct from the amounts certified under this **Contract** to be due to the **Contractor**, the sum or sums due and owing from the **Contractor** to the **Subcontractors** according to the terms of the said subcontracts, and in case of dispute between the **Contractor** and its **Subcontractor**, or **Subcontractors**, as to the amount due and owing, the **Commissioner** may deduct and withhold from the amounts certified under this **Contract** to be due to the **Contractor** such sum or sums as may be claimed by such **Subcontractor**, or **Subcontractors**, in a sworn affidavit, to be due and owing until such time as such claim or claims shall have been finally resolved.

17.13 On contracts where performance bonds and payment bonds are executed, the **Contractor** shall include on each requisition for payment the following data: **Subcontractor's** name, value of the subcontract, total amount previously paid to **Subcontractor** for **Work** previously requisitioned, and the amount, including retainage, to be paid to the **Subcontractor** for **Work** included in the requisition.

17.14 On **Contracts** where performance bonds and payment bonds are not executed, the **Contractor** shall include with each requisition for payment submitted hereunder, a signed statement from each and every **Subcontractor** and/or **Materialman** for whom payment is requested in such requisition. Such signed statement shall be on the letterhead of the **Subcontractor** and/or **Materialman** for whom payment is requested and shall (i) verify that such **Subcontractor** and/or **Materialman** has been paid in full for all **Work** performed and/or material supplied to date, exclusive of any amount retained and any amount included on the current requisition, and (ii) state the total amount of retainage to date, exclusive of any amount retained on the current requisition.

ARTICLE 18. ASSIGNMENTS

18.1 The **Contractor** shall not assign, transfer, convey or otherwise dispose of this **Contract**, or the right to execute it, or the right, title or interest in or to it or any part thereof, or assign, by power of attorney or otherwise any of the monies due or to become due under this **Contract**, unless the previous written consent of the **Commissioner** shall first be obtained thereto, and the giving of any such consent to a particular assignment shall not dispense with the necessity of such consent to any further or other assignments.

18.2 Such assignment, transfer, conveyance or other disposition of this **Contract** shall not be valid until filed in the office of the **Commissioner** and the **Comptroller**, with the written consent of the **Commissioner** endorsed thereon or attached thereto.

18.3 Failure to obtain the previous written consent of the **Commissioner** to such an assignment, transfer, conveyance or other disposition, may result in the revocation and annulment of this **Contract**. The **City** shall thereupon be relieved and discharged from any further liability to the **Contractor**, its assignees, transferees or sublessees, who shall forfeit and lose all monies therefor earned under the **Contract**, except so much as may be required to pay the **Contractor's** employees.

18.4 The provisions of this clause shall not hinder, prevent, or affect an assignment by the **Contractor** for the benefit of its creditors made pursuant to the **Laws** of the State of New York.

18.5 This **Contract** may be assigned by the **City** to any corporation, agency or instrumentality having authority to accept such assignment.

**CHAPTER V
CONTRACTOR'S SECURITY AND GUARANTEE**

ARTICLE 19. SECURITY DEPOSIT

19.1 If performance and payment bonds are required, the **City** shall retain the bid security to ensure that the successful bidder executes the **Contract** and furnishes the required payment and performance security within ten (10) **Days** after notice of the award of the **Contract**. If the successful bidder fails to execute the **Contract** and furnish the required payment and performance security, the **City** shall retain such bid security as set forth in the Information for Bidders. If the successful bidder executes the **Contract** and furnishes the required payment and performance security, the **City** shall return the bid security within a reasonable time after the furnishing of such bonds and execution of the **Contract** by the **City**.

19.2 If performance and payment bonds are not required, the bid security shall be retained by the **City** as security for the **Contractor's** faithful performance of the **Contract**. If partial payments are provided, the bid security will be returned to the **Contractor** after the sum retained under Article 21 equals the amount of the bid security, subject to other provisions of this **Contract**. If partial payments are not provided, the bid security will be released when final payment is certified by the **City** for payment.

19.3 If the **Contractor** is declared in default under Article 48 prior to the return of the deposit, or if any claim is made such as referred to in Article 23, the amount of such deposit, or so much thereof as the **Comptroller** may deem necessary, may be retained and then applied by the **Comptroller**:

19.3.1 To compensate the **City** for any expense, loss or damage suffered or incurred by reason of or resulting from such default, including the cost of re-letting and liquidated damages; or

19.3.2 To indemnify the **City** against any and all claims.

ARTICLE 20. PAYMENT GUARANTEE

20.1 On **Contracts** where one hundred (100%) percent performance bonds and payment bonds are executed, this Article 20 does not apply.

20.2 In the event the terms of this **Contract** do not require the **Contractor** to provide a payment bond or where the **Contract** does not require a payment bond for one hundred (100%) percent of the **Contract** price, the **City** shall, in accordance with the terms of this Article 20, guarantee payment of all lawful claims for:

20.2.1 Wages and compensation for labor performed and/or services rendered; and

20.2.2 Materials, equipment, and supplies provided, whether incorporated into the **Work** or not, when demands have been filed with the **City** as provided hereinafter by any person, firm, or corporation which furnished labor, material, equipment, supplies, or any combination thereof, in connection with the **Work** performed hereunder (hereinafter referred to as the "beneficiary") at the direction of the **City** or the **Contractor**.

20.3 The provisions of Article 20.2 are subject to the following limitations and conditions:

20.3.1 If the **Contractor** provides a payment bond for a value that is less than one hundred (100%) percent of the value of the **Contract Work**, the payment bond provided by the **Contractor** shall be primary (and non-contributing) to the payment guarantee provided under this Article 20.

20.3.2 The guarantee is made for the benefit of all beneficiaries as defined in Article 20.2 provided that those beneficiaries strictly adhere to the terms and conditions of Article 20.3.4 and 20.3.5.

20.3.3 Nothing in this Article 20 shall prevent a beneficiary providing labor, services or material for the **Work** from suing the **Contractor** for any amounts due and owing the beneficiary by the **Contractor**.

20.3.4 Every person who has furnished labor or material, to the **Contractor** or to a **Subcontractor** of the **Contractor**, in the prosecution of the **Work** and who has not been paid in full therefor before the expiration of a period of ninety (90) **Days** after the date on which the last of the labor was performed or material was furnished by him/her for which the claim is made, shall have the right to sue on this payment guarantee in his/her own name for the amount, or the balance thereof, unpaid at the time of commencement of the action; provided, however, that a person having a direct contractual relationship with a **Subcontractor** of the **Contractor** but no contractual relationship express or implied with the **Contractor** shall not have a right of action upon the guarantee unless he/she shall have given written notice to the **Contractor** within one hundred twenty (120) **Days** from the date on which the last of the labor was performed or the last of the material was furnished, for which his/her claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the material was furnished or for whom the labor was performed. The notice shall be served by delivering the same personally to the **Contractor** or by mailing the same by registered mail, postage prepaid, in an envelope addressed to the **Contractor** at any place where it maintains an office or conducts its business; provided, however, that where such notice is actually received by the **Contractor** by other means, such notice shall be deemed sufficient.

20.3.5 Except as provided in Labor Law Section 220-g, no action on this payment guarantee shall be commenced after the expiration of the one-year limitations period set forth in Section 137(4)(b) of the State Finance Law.

20.3.6 The **Contractor** shall promptly forward to the **City** any notice or demand received pursuant to Article 20.3.4. The **Contractor** shall inform the **City** of any defenses to the notice or demand and shall forward to the **City** any documents the **City** requests concerning the notice or demand.

20.3.7 All demands made against the **City** by a beneficiary of this payment guarantee shall be presented to the **Engineer** along with all written documentation concerning the demand which the **Engineer** deems reasonably appropriate or necessary, which may include, but shall not be limited to: the subcontract; any invoices presented to the **Contractor** for payment; the notarized statement of the beneficiary that the demand is due and payable, that a request for payment has been made of the **Contractor** and that the demand has not been paid by the **Contractor** within the time allowed for such payment by the subcontract; and copies of any correspondence between the beneficiary and the **Contractor** concerning such demand. The **City** shall notify the **Contractor** that a demand has been made. The **Contractor** shall inform the **City** of any defenses to the demand and shall forward to the **City** any documents the **City** requests concerning the demand.

20.3.8 The City shall make payment only if, after considering all defenses presented by the Contractor, it determines that the payment is due and owing to the beneficiary making the demand.

20.3.9 No beneficiary shall be entitled to interest from the City, or to any other costs, including, but not limited to, attorneys' fees, except to the extent required by State Finance Law Section 137.

20.4 Upon the receipt by the City of a demand pursuant to this Article 20, the City may withhold from any payment otherwise due and owing to the Contractor under this Contract an amount sufficient to satisfy the demand.

20.4.1 In the event the City determines that the demand is valid, the City shall notify the Contractor of such determination and the amount thereof and direct the Contractor to immediately pay such amount to the beneficiary. In the event the Contractor, within seven (7) Days of receipt of such notification from the City, fails to pay the beneficiary, such failure shall constitute an automatic and irrevocable assignment of payment by the Contractor to the beneficiary for the amount of the demand determined by the City to be valid. The Contractor, without further notification or other process, hereby gives its unconditional consent to such assignment of payment to the beneficiary and authorizes the City, on its behalf, to take all necessary actions to implement such assignment of payment, including without limitation the execution of any instrument or documentation necessary to effectuate such assignment.

20.4.2 In the event that the amount otherwise due and owing to the Contractor by the City is insufficient to satisfy such demand, the City may, at its option, require payment from the Contractor of an amount sufficient to cover such demand and exercise any other right to require or recover payment which the City may have under Law or Contract.

20.4.3 In the event the City determines that the demand is invalid, any amount withheld pending the City's review of such demand shall be paid to the Contractor; provided, however, no lien has been filed. In the event a claim or an action has been filed, the terms and conditions set forth in Article 23 shall apply. In the event a lien has been filed, the parties will be governed by the provisions of the Lien Law of the State of New York.

20.5 The provisions of this Article 20 shall not prevent the City and the Contractor from resolving disputes in accordance with the PPB Rules, where applicable.

20.6 In the event the City determines that the beneficiary is entitled to payment pursuant to this Article 20, such determination and any defenses and counterclaims raised by the Contractor shall be taken into account in evaluating the Contractor's performance.

20.7 Nothing in this Article 20 shall relieve the Contractor of the obligation to pay the claims of all persons with valid and lawful claims against the Contractor relating to the Work.

20.8 The Contractor shall not require any performance, payment or other bonds of any Subcontractor if this Contract does not require such bonds of the Contractor.

20.9 The payment guarantee made pursuant to this Article 20 shall be construed in a manner consistent with Section 137 of the State Finance Law and shall afford to persons furnishing labor or materials to the Contractor or its Subcontractors in the prosecution of the Work under this Contract all of the rights and remedies afforded to such persons by such section, including but not limited to, the right

to commence an action against the City on the payment guarantee provided by this Article 20 within the one-year limitations period set forth in Section 137(4)(b).

ARTICLE 21. RETAINED PERCENTAGE

21.1 If this **Contract** requires one hundred (100%) percent performance and payment security, then as further security for the faithful performance of this **Contract**, the **Commissioner** shall deduct, and retain until the substantial completion of the **Work**, five (5%) percent of the value of **Work** certified for payment in each partial payment voucher.

21.2 If this **Contract** does not require one hundred (100%) percent performance and payment security and if the price for which this **Contract** was awarded does not exceed one million (\$1,000,000) dollars, then as further security for the faithful performance of this **Contract**, the **Commissioner** shall deduct, and retain until the substantial completion of the **Work**, five (5%) percent of the value of **Work** certified for payment in each partial payment voucher.

21.3 If this **Contract** does not require one hundred (100%) percent performance and payment security and if the price for which this **Contract** was awarded exceeds one million (\$1,000,000) dollars, then as further security for the faithful performance of this **Contract**, the **Commissioner** shall deduct, and retain until the substantial completion of the **Work**, up to ten (10%) percent of the value of **Work** certified for payment in each partial payment voucher. The percentage to be retained is set forth in Schedule A of the General Conditions.

ARTICLE 22. INSURANCE

22.1 Types of Insurance: The **Contractor** shall procure and maintain the following types of insurance if, and as indicated, in Schedule A of the General Conditions (with the minimum limits and special conditions specified in Schedule A). Such insurance shall be maintained from the date the **Contractor** is required to provide Proof of Insurance pursuant to Article 22.3.1 through the date of completion of all required **Work** (including punch list work as certified in writing by the **Resident Engineer**), except for insurance required pursuant to Article 22.1.4, which may terminate upon **Substantial Completion** of the **Contract**. All insurance shall meet the requirements set forth in this Article 22. Wherever this Article requires that insurance coverage be "at least as broad" as a specified form (including all ISO forms), there is no obligation that the form itself be used, provided that the **Contractor** can demonstrate that the alternative form or endorsement contained in its policy provides coverage at least as broad as the specified form.

22.1.1 Commercial General Liability Insurance: The **Contractor** shall provide Commercial General Liability Insurance covering claims for property damage and/or bodily injury, including death, which may arise from any of the operations under this **Contract**. Coverage under this insurance shall be at least as broad as that provided by the latest edition of Insurance Services Office ("ISO") Form CG 0001. Such insurance shall be "occurrence" based rather than "claims-made" and include, without limitation, the following types of coverage: premises operations; products and completed operations; contractual liability (including the tort liability of another assumed in a contract); broad form property damage; independent contractors; explosion, collapse and underground (XCU); construction means and methods; and incidental malpractice. Such insurance shall contain a "per project" aggregate limit, as specified in Schedule A, that applies separately to operations under this **Contract**.

22.1.1(a) Such Commercial General Liability Insurance shall name the **City** as an Additional Insured. Coverage for the **City** shall specifically include the **City's** officials and employees, be at least as broad as the latest edition of ISO Form CG 20 10 and provide completed operations coverage at least as broad as the latest edition of ISO Form CG 20 37.

22.1.1(b) Such Commercial General Liability Insurance shall name all other entities designated as additional insureds in Schedule A but only for claims arising from the **Contractor's** operations under this **Contract**, with coverage at least as broad as the latest edition of ISO Form CG 20 26.

22.1.1(c) If the **Work** requires a permit from the Department of Buildings pursuant to 1 RCNY Section 101-08, at http://www.nyc.gov/html/dob/downloads/rules/1_RCNY_101-08.pdf, the **Contractor** shall provide Commercial General Liability Insurance with limits of at least those required by 1 RCNY section 101-08. If the **Work** does not require such a permit, the minimum limits shall be those provided for in Schedule A.

22.1.1(d) If any of the **Work** includes repair of a waterborne vessel owned by or to be delivered to the **City**, such Commercial General Liability shall include, or be endorsed to include, Ship Repairer's Legal Liability Coverage to protect against, without limitation, liability arising from navigation of such vessels prior to delivery to and acceptance by the **City**.

22.1.2 Workers' Compensation Insurance, Employers' Liability Insurance, and Disability Benefits Insurance: The **Contractor** shall provide, and shall cause its **Subcontractors** to provide, Workers Compensation Insurance, Employers' Liability Insurance, and Disability Benefits Insurance in accordance with the **Laws** of the State of New York on behalf of all employees providing services under this **Contract** (except for those employees, if any, for which the **Laws** require insurance only pursuant to Article 22.1.3).

22.1.3 United States Longshoremen's and Harbor Workers Act and/or Jones Act Insurance: If specified in Schedule A of the General Conditions or if required by **Law**, the **Contractor** shall provide insurance in accordance with the United States Longshoremen's and Harbor Workers Act and/or the Jones Act, on behalf of all qualifying employees providing services under this **Contract**.

22.1.4 Builders Risk Insurance: If specified in Schedule A of the General Conditions, the **Contractor** shall provide Builders Risk Insurance on a completed value form for the total value of the **Work** through **Substantial Completion** of the **Work** in its entirety. Such insurance shall be provided on an All Risk basis and include coverage, without limitation, for windstorm (including named windstorm), storm surge, flood and earth movement. Unless waived by the **Commissioner**, it shall include coverage for ordinance and law, demolition and increased costs of construction, debris removal, pollutant clean up and removal, and expediting costs. Such insurance shall cover, without limitation, (a) all buildings and/or structures involved in the **Work**, as well as temporary structures at the **Site**, and (b) any property that is intended to become a permanent part of such building or structure, whether such property is on the **Site**, in transit or in temporary storage. Policies shall name the **Contractor** as Named Insured and list the **City** as both an Additional Insured and a Loss Payee as its interest may appear.

22.1.4(a) Policies of such insurance shall specify that, in the event a loss occurs at an occupied facility, occupancy of such facility is permitted without the consent of the issuing insurance company.

22.1.4(b) Such insurance may be provided through an Installation Floater, at the **Contractor's** option, if it otherwise conforms with the requirements of this Article 22.1.4.

22.1.5 Commercial Automobile Liability Insurance: The **Contractor** shall provide Commercial Automobile Liability Insurance for liability arising out of ownership, maintenance or use of any owned (if any), non-owned and hired vehicles to be used in connection with this **Contract**. Coverage shall be at least as broad as the latest edition of ISO Form CA0001. If vehicles are used for transporting hazardous materials, the Automobile Liability Insurance shall be endorsed to provide pollution liability broadened coverage for covered vehicles (endorsement CA 99 48) as well as proof of MCS 90.

22.1.6 Contractors Pollution Liability Insurance: If specified in Schedule A of the General Conditions, the **Contractor** shall maintain, or cause the **Subcontractor** doing such **Work** to maintain, Contractors Pollution Liability Insurance covering bodily injury and property damage. Such insurance shall provide coverage for actual, alleged or threatened emission, discharge, dispersal, seepage, release or escape of pollutants (including asbestos), including any loss, cost or expense incurred as a result of any cleanup of pollutants (including asbestos) or in the investigation, settlement or defense of any claim, action, or proceedings arising from the operations under this **Contract**. Such insurance shall be in the **Contractor's** name and list the **City** as an Additional Insured and any other entity specified in Schedule A. Coverage shall include, without limitation, (a) loss of use of damaged property or of property that has not been physically injured, (b) transportation, and (c) non-owned disposal sites.

22.1.6(a) Coverage for the **City** as Additional Insured shall specifically include the **City's** officials and employees and be at least as broad as provided to the **Contractor** for this **Project**.

22.1.6(b) If such insurance is written on a claims-made policy, such policy shall have a retroactive date on or before the effective date of this **Contract**, and continuous coverage shall be maintained, or an extended discovery period exercised, for a period of not less than three (3) years from the time the **Work** under this **Contract** is completed.

22.1.7 Marine Insurance:

22.1.7(a) Marine Protection and Indemnity Insurance: If specified in Schedule A of the General Conditions or if the **Contractor** engages in marine operations in the execution of any part of the **Work**, the **Contractor** shall maintain, or cause the **Subcontractor** doing such **Work** to maintain, Marine Protection and Indemnity Insurance with coverage at least as broad as Form SP-23. The insurance shall provide coverage for the **Contractor** or **Subcontractor** (whichever is doing this **Work**) and for the **City** (together with its officials and employees) and any other entity specified in Schedule A as an Additional Insured for bodily injury and property damage arising from marine operations under this **Contract**. Coverage shall include, without limitation, injury or death of crew members (if not fully provided through other insurance), removal of wreck, damage to piers, wharves and other fixed or floating objects and loss of or damage to any other vessel or craft, or to property on such other vessel or craft.

22.1.7(b) Hull and Machinery Insurance: If specified in Schedule A of the General Conditions or if the **Contractor** engages in marine operations in the execution of any part of the **Work**, the **Contractor** shall maintain, or cause the **Subcontractor** doing such **Work** to maintain, Hull and Machinery Insurance with coverage for the **Contractor** or **Subcontractor** (whichever is doing this **Work**) and for the **City** (together with its officials and employees) as Additional Insured at least as broad as the latest edition of American Institute Tug Form for all tugs used under this **Contract** and Collision Liability at least as broad as the latest edition of American Institute Hull Clauses.

22.1.7(c) Marine Pollution Liability Insurance: If specified in Schedule A of the General Conditions or if the **Contractor** engages in marine operations in the execution of any part of the **Work**, the **Contractor** shall maintain, or cause the **Subcontractor** doing such **Work** to maintain, Marine Pollution Liability Insurance covering itself (or the **Subcontractor** doing such **Work**) as Named Insured and the **City** (together with its officials and employees) and any other entity specified in Schedule A as an Additional Insured. Coverage shall be at least as broad as that provided by the latest edition of Water Quality Insurance Syndicate Form and include, without limitation, liability arising from the discharge or substantial threat of a discharge of oil, or from the release or threatened release of a hazardous substance including injury to, or economic losses resulting from, the destruction of or damage to real property, personal property or natural resources.

22.1.8 The **Contractor** shall provide such other types of insurance, at such minimum limits and with such conditions, as are specified in Schedule A of the General Conditions.

22.2 General Requirements for Insurance Coverage and Policies:

22.2.1 All required insurance policies shall be maintained with companies that may lawfully issue the required policy and have an A.M. Best rating of at least A-/VII or a Standard and Poor's rating of at least A, unless prior written approval is obtained from the **City** Corporation Counsel.

22.2.2 The **Contractor** shall be solely responsible for the payment of all premiums for all required policies and all deductibles and self-insured retentions to which such policies are subject, whether or not the **City** is an insured under the policy.

22.2.3 In his/her sole discretion, the **Commissioner** may, subject to the approval of the **Comptroller** and the **City** Corporation Counsel, accept Letters of Credit and/or custodial accounts in lieu of required insurance.

22.2.4 The **City's** limits of coverage for all types of insurance required pursuant to Schedule A of the General Conditions shall be the greater of (i) the minimum limits set forth in Schedule A or (ii) the limits provided to the **Contractor** as Named Insured under all primary, excess, and umbrella policies of that type of coverage.

22.2.5 The **Contractor** may satisfy its insurance obligations under this Article 22 through primary policies or a combination of primary and excess/umbrella policies, so long as all policies provide the scope of coverage required herein.

22.2.6 Policies of insurance provided pursuant to this Article 22 shall be primary and non-contributing to any insurance or self-insurance maintained by the **City**.

22.3 Proof of Insurance:

22.3.1 For all types of insurance required by Article 22.1 and Schedule A, except for insurance required by Articles 22.1.4 and 22.1.7, the **Contractor** shall file proof of insurance in accordance with this Article 22.3 within ten (10) **Days** of award. For insurance provided pursuant to Articles 22.1.4 and 22.1.7, proof shall be filed by a date specified by the **Commissioner** or ten (10) **Days** prior to the commencement of the portion of the **Work** covered by such policy, whichever is earlier.

22.3.2 For Workers' Compensation Insurance provided pursuant to Article 22.1.2, the **Contractor** shall submit one of the following forms: C-105.2 Certificate of Workers' Compensation Insurance; U-26.3 - State Insurance Fund Certificate of Workers' Compensation Insurance; Request for WC/DB Exemption (Form CE-200); equivalent or successor forms used by the New York State Workers' Compensation Board; or other proof of insurance in a form acceptable to the **Commissioner**. For Disability Benefits Insurance provided pursuant to Article 22.1.2, the Contractor shall submit DB-120.1 - Certificate Of Insurance Coverage Under The NYS Disability Benefits Law, Request for WC/DB Exemption (Form CE-200); equivalent or successor forms used by the New York State Workers' Compensation Board; or other proof of insurance in a form acceptable to the **Commissioner**. ACORD forms are not acceptable.

22.3.3 For policies provided pursuant to all of Article 22.1 other than Article 22.1.2, the **Contractor** shall submit one or more Certificates of Insurance on forms acceptable to the **Commissioner**. All such Certificates of Insurance shall certify (a) the issuance and effectiveness of such policies of insurance, each with the specified minimum limits (b) for insurance secured pursuant to Article 22.1.1 that the **City** and any other entity specified in Schedule A is an Additional Insured with coverage at least as broad as the most recent edition of ISO Forms CG 20 10, CG 20 37, and CG 20 26, as applicable; (c) in the event insurance is required pursuant to Article 22.1.6 and/or Article 22.1.7, that the **City** is an Additional Insured thereunder; (d) the company code issued to the insurance company by the National Association of Insurance Commissioners (the NAIC number); and (e) the number assigned to the **Contract** by the **City**. All such Certificates of Insurance shall be accompanied by either a duly executed "Certification by Broker" in the form contained in Part III of Schedule A or copies of all policies referenced in such Certificate of Insurance as certified by an authorized representative of the issuing insurance carrier. If any policy is not available at the time of submission, certified binders may be submitted until such time as the policy is available, at which time a certified copy of the policy shall be submitted.

22.3.4 Documentation confirming renewals of insurance shall be submitted to the **Commissioner** prior to the expiration date of coverage of policies required under this **Contract**. Such proofs of insurance shall comply with the requirements of Articles 22.3.2 and 22.3.3.

22.3.5 The **Contractor** shall be obligated to provide the **City** with a copy of any policy of insurance provided pursuant to this Article 22 upon the demand for such policy by the **Commissioner** or the **City** Corporation Counsel.

22.4 Operations of the Contractor:

22.4.1 The **Contractor** shall not commence the **Work** unless and until all required certificates have been submitted to and accepted by the **Commissioner**. Acceptance by the **Commissioner** of a certificate does not excuse the **Contractor** from securing insurance

consistent with all provisions of this Article 22 or of any liability arising from its failure to do so.

22.4.2 The **Contractor** shall be responsible for providing continuous insurance coverage in the manner, form, and limits required by this **Contract** and shall be authorized to perform **Work** only during the effective period of all required coverage.

22.4.3 In the event that any of the required insurance policies lapse, are revoked, suspended or otherwise terminated, for whatever cause, the **Contractor** shall immediately stop all **Work**, and shall not recommence **Work** until authorized in writing to do so by the **Commissioner**. Upon quitting the **Site**, except as otherwise directed by the **Commissioner**, the **Contractor** shall leave all plant, materials, equipment, tools, and supplies on the **Site**. **Contract** time shall continue to run during such periods and no extensions of time will be granted. The **Commissioner** may also declare the **Contractor** in default for failure to maintain required insurance.

22.4.4 In the event the **Contractor** receives notice, from an insurance company or other person, that any insurance policy required under this Article 22 shall be cancelled or terminated (or has been cancelled or terminated) for any reason, the **Contractor** shall immediately forward a copy of such notice to both the **Commissioner** and the New York City Comptroller, attn: Office of Contract Administration, Municipal Building, One Centre Street, room 1005, New York, New York 10007. Notwithstanding the foregoing, the **Contractor** shall ensure that there is no interruption in any of the insurance coverage required under this Article 22.

22.4.5 Where notice of loss, damage, occurrence, accident, claim or suit is required under an insurance policy maintained in accordance with this Article 22, the **Contractor** shall notify in writing all insurance carriers that issued potentially responsive policies of any such event relating to any operations under this **Contract** (including notice to Commercial General Liability insurance carriers for events relating to the **Contractor**'s own employees) no later than 20 days after such event. For any policy where the **City** is an Additional Insured, such notice shall expressly specify that "this notice is being given on behalf of the City of New York as Insured as well as the Named Insured." Such notice shall also contain the following information: the number of the insurance policy, the name of the named insured, the date and location of the damage, occurrence, or accident, and the identity of the persons or things injured, damaged or lost. The **Contractor** shall simultaneously send a copy of such notice to the City of New York c/o Insurance Claims Specialist, Affirmative Litigation Division, New York City Law Department, 100 Church Street, New York, New York 10007.

22.4.6 In the event of any loss, accident, claim, action, or other event that does or can give rise to a claim under any insurance policy required under this Article 22, the **Contractor** shall at all times fully cooperate with the **City** with regard to such potential or actual claim.

22.5 **Subcontractor Insurance:** In the event the **Contractor** requires any **Subcontractor** to procure insurance with regard to any operations under this **Contract** and requires such **Subcontractor** to name the **Contractor** as an **Additional Insured** thereunder, the **Contractor** shall ensure that the **Subcontractor** name the **City**, including its officials and employees, as an Additional Insured with coverage at least as broad as the most recent edition of ISO Form CG 20 26.

22.6 Wherever reference is made in Article 7 or this Article 22 to documents to be sent to the **Commissioner** (e.g., notices, filings, or submissions), such documents shall be sent to the address set forth in Schedule A of the General Conditions. In the event no address is set forth in Schedule A, such documents are to be sent to the **Commissioner**'s address as provided elsewhere in this **Contract**.

22.7 Apart from damages or losses covered by insurance provided pursuant to Articles 22.1.2, 22.1.3, or 22.1.5, the **Contractor** waives all rights against the **City**, including its officials and employees, for any damages or losses that are covered under any insurance required under this Article 22 (whether or not such insurance is actually procured or claims are paid thereunder) or any other insurance applicable to the operations of the **Contractor** and/or its employees, agents, or **Subcontractors**.

22.8 In the event the **Contractor** utilizes a self-insurance program to satisfy any of the requirements of this Article 22, the **Contractor** shall ensure that any such self-insurance program provides the **City** with all rights that would be provided by traditional insurance under this Article 22, including but not limited to the defense and indemnification obligations that insurers are required to undertake in liability policies.

22.9 Materiality/Non-Waiver: The **Contractor's** failure to secure policies in complete conformity with this Article 22, or to give an insurance company timely notice of any sort required in this **Contract** or to do anything else required by this Article 22 shall constitute a material breach of this **Contract**. Such breach shall not be waived or otherwise excused by any action or inaction by the **City** at any time.

22.10 Pursuant to General Municipal Law Section 108, this **Contract** shall be void and of no effect unless **Contractor** maintains Workers' Compensation Insurance for the term of this **Contract** to the extent required and in compliance with the New York State Workers' Compensation Law.

22.11 Other Remedies: Insurance coverage provided pursuant to this Article 22 or otherwise shall not relieve the **Contractor** of any liability under this **Contract**, nor shall it preclude the **City** from exercising any rights or taking such other actions available to it under any other provisions of this **Contract** or **Law**.

ARTICLE 23. MONEY RETAINED AGAINST CLAIMS

23.1 If any claim shall be made by any person or entity (including **Other Contractors** with the **City** on this **Project**) against the **City** or against the **Contractor** and the **City** for any of the following:

- (a) An alleged loss, damage, injury, theft or vandalism of any of the kinds referred to in Articles 7 and 12, plus the reasonable costs of defending the **City**, which in the opinion of the **Comptroller** may not be paid by an insurance company (for any reason whatsoever); or
- (b) An infringement of copyrights, patents or use of patented articles, tools, etc., as referred to in Article 57; or
- (c) Damage claimed to have been caused directly or indirectly by the failure of the **Contractor** to perform the **Work** in strict accordance with this **Contract**,

the amount of such claim, or so much thereof as the **Comptroller** may deem necessary, may be withheld by the **Comptroller**, as security against such claim, from any money due hereunder. The **Comptroller**, in his/her discretion, may permit the **Contractor** to substitute other satisfactory security in lieu of the monies so withheld.

23.2 If an action on such claim is timely commenced and the liability of the **City**, or the **Contractor**, or both, shall have been established therein by a final judgment of a court of competent jurisdiction, or if such claim shall have been admitted by the **Contractor** to be valid, the **Comptroller**

shall pay such judgment or admitted claim out of the monies retained by the **Comptroller** under the provisions of this Article 23, and return the balance, if any, without interest, to the **Contractor**.

ARTICLE 24. MAINTENANCE AND GUARANTY

24.1 The **Contractor** shall promptly repair, replace, restore or rebuild, as the **Commissioner** may determine, any finished **Work** in which defects of materials or workmanship may appear or to which damage may occur because of such defects, during the one (1) year period subsequent to the date of **Substantial Completion** (or use and occupancy in accordance with Article 16), except where other periods of maintenance and guaranty are provided for in Schedule A.

24.2 As security for the faithful performance of its obligations hereunder, the **Contractor**, upon filing its requisition for payment on **Substantial Completion**, shall deposit with the **Commissioner** a sum equal to one (1%) percent of the price (or the amount fixed in Schedule A of the General Conditions) in cash or certified check upon a state or national bank and trust company or a check of such bank and trust company signed by a duly authorized officer thereof and drawn to the order of the **Comptroller**, or obligations of the **City**, which the **Comptroller** may approve as of equal value with the sum so required.

24.3 In lieu of the above, the **Contractor** may make such security payment to the **City** by authorizing the **Commissioner** in writing to deduct the amount from the **Substantial Completion** payment which shall be deemed the deposit required above.

24.4 If the **Contractor** has faithfully performed all of its obligations hereunder the **Commissioner** shall so certify to the **Comptroller** within five (5) **Days** after the expiration of one (1) year from the date of **Substantial Completion** and acceptance of the **Work** or within thirty (30) **Days** after the expiration of the guarantee period fixed in the **Specifications**. The security payment shall be repaid to the **Contractor** without interest within thirty (30) **Days** after certification by the **Commissioner** to the **Comptroller** that the **Contractor** has faithfully performed all of its obligations hereunder.

24.5 Notice by the **Commissioner** to the **Contractor** to repair, replace, rebuild or restore such defective or damaged **Work** shall be timely, pursuant to this article, if given not later than ten (10) **Days** subsequent to the expiration of the one (1) year period or other periods provided for herein.

24.6 If the **Contractor** shall fail to repair, replace, rebuild or restore such defective or damaged **Work** promptly after receiving such notice, the **Commissioner** shall have the right to have the **Work** done by others in the same manner as provided for in the completion of a defaulted **Contract**, under Article 51.

24.7 If the security payment so deposited is insufficient to cover the cost of such **Work**, the **Contractor** shall be liable to pay such deficiency on demand by the **Commissioner**.

24.8 The **Engineer's** certificate setting forth the fair and reasonable cost of repairing, replacing, rebuilding or restoring any damaged or defective **Work** when performed by one other than the **Contractor**, shall be binding and conclusive upon the **Contractor** as to the amount thereof.

24.9 The **Contractor** shall obtain all manufacturers' warranties and guaranties of all equipment and materials required by this **Contract** in the name of the **City** and shall deliver same to the **Commissioner**. All of the **City's** rights and title and interest in and to said manufacturers' warranties and guaranties may be assigned by the **City** to any subsequent purchasers of such equipment and materials or lessees of the premises into which the equipment and materials have been installed.

**CHAPTER VI
CHANGES, EXTRA WORK, AND DOCUMENTATION OF CLAIM**

ARTICLE 25. CHANGES

25.1 Changes may be made to this **Contract** only as duly authorized in writing by the **Commissioner** in accordance with the **Law** and this **Contract**. All such changes, modifications, and amendments will become a part of the **Contract**. **Work** so ordered shall be performed by the **Contractor**.

25.2 **Contract** changes will be made only for **Work** necessary to complete the **Work** included in the original scope of the **Contract** and/or for non-material changes to the scope of the **Contract**. Changes are not permitted for any material alteration in the scope of **Work** in the **Contract**.

25.3 The **Contractor** shall be entitled to a price adjustment for **Extra Work** performed pursuant to a written change order. Adjustments to price shall be computed in one or more of the following ways:

25.3.1 By applicable unit prices specified in the **Contract**; and/or

25.3.2 By agreement of a fixed price; and/or

25.3.3 By time and material records; and/or

25.3.4 In any other manner approved by the **CCPO**.

25.4 All payments for change orders are subject to pre-audit by the **Engineering Audit Officer** and may be post-audited by the **Comptroller** and/or the **Agency**.

ARTICLE 26. METHODS OF PAYMENT FOR OVERRUNS AND EXTRA WORK

26.1 **Overrun of Unit Price Item**: An overrun is any quantity of a unit price item which the **Contractor** is directed to provide which is in excess of one hundred twenty-five (125%) percent of the estimated quantity for that item set forth in the bid schedule.

26.1.1 For any unit price item, the **Contractor** will be paid at the unit price bid for any quantity up to one hundred twenty-five (125%) percent of the estimated quantity for that item set forth in the bid schedule. If during the progress of the **Work**, the actual quantity of any unit price item required to complete the **Work** approaches the estimated quantity for that item, and for any reason it appears that the actual quantity of any unit price item necessary to complete the **Work** will exceed the estimated quantity for that item by twenty-five (25%) percent, the **Contractor** shall immediately notify the **Engineer** of such anticipated overrun. The **Contractor** shall not be compensated for any quantity of a unit price item provided which is in excess of one hundred twenty-five (125%) percent of the estimated quantity for that item set forth in the bid schedule without written authorization from the **Engineer**.

26.1.2 If the actual quantity of any unit price item necessary to complete the **Work** will exceed one hundred twenty five (125%) percent of the estimated quantity for that item set forth in the bid schedule, the **City** reserves the right and the **Contractor** agrees to negotiate a new unit price for such item. In no event shall such negotiated new unit price exceed the unit bid price. If the **City** and **Contractor** cannot agree on a new unit price, then the **City** shall order the **Contractor** and the **Contractor** agrees to provide additional quantities of the

item on the basis of time and material records for the actual and reasonable cost as determined under Article 26.2, but in no event at a unit price exceeding the unit price bid.

26.2 **Extra Work:** For **Extra Work** where payment is by agreement on a fixed price in accordance with Article 25.3.2, the price to be paid for such **Extra Work** shall be based on the fair and reasonable estimated cost of the items set forth below. For **Extra Work** where payment is based on time and material records in accordance with Article 25.3.3, the price to be paid for such **Extra Work** shall be the actual and reasonable cost of the items set forth below, calculated in accordance with the formula specified therein, if any.

26.2.1 Necessary materials (including transportation to the **Site**); plus

26.2.2 Necessary direct labor, including payroll taxes (subject to statutory wage caps) and supplemental benefits; plus

26.2.3 Sales and personal property taxes, if any, required to be paid on materials not incorporated into such **Extra Work**; plus

26.2.4 Reasonable rental value of **Contractor**-owned (or **Subcontractor**-owned, as applicable), necessary plant and equipment other than **Small Tools**, plus fuel/energy costs. Except for fuel costs for pick-up trucks which shall be reimbursed based on a consumption of five (5) gallons per shift, fuel costs shall be reimbursed based on actual costs or, in the absence of auditable documentation, the following fuel consumption formula per operating hour: $(.035) \times (\text{HP rating}) \times (\text{Fuel cost/gallon})$. Reasonable rental value is defined as the lower of either seventy-five percent of the monthly prorated rental rates established in "The AED Green Book, Rental Rates and Specifications for Construction Equipment" published by Equipment Watch (the "Green Book"), or seventy-five percent of the monthly prorated rental rates established in the "Rental Rate Blue Book for Construction Equipment" published by Equipment Watch (the "Blue Book") (the applicable Blue Book rate being for rental only without the addition of any operational costs listed in the Blue Book). The reasonable rental value is deemed to be inclusive of all operating costs except for fuel/energy consumption and equipment operator's wages/costs. For multiple shift utilization, reimbursement shall be calculated as follows: first shift shall be seventy-five (75%) percent of such rental rates; second shift shall be sixty (60%) percent of the first shift rate; and third shift shall be forty (40%) percent of the first shift rate. Equipment on standby shall be reimbursed at one-third (1/3) the prorated monthly rental rate. **Contractor**-owned (or **Subcontractor**-owned, as applicable) equipment includes equipment from rental companies affiliated with or controlled by the **Contractor** (or **Subcontractor**, as applicable), as determined by the **Commissioner**. In establishing cost reimbursement for non-operating **Contractor**-owned (or **Subcontractor**-owned, as applicable) equipment (scaffolding, sheeting systems, road plates, etc.), the **City** may restrict reimbursement to a purchase-salvage/life cycle basis if less than the computed rental costs; plus

26.2.5 Necessary installation and dismantling of such plant and equipment, including transportation to and from the **Site**, if any, provided that, in the case of non-**Contractor**-owned (or non-**Subcontractor**-owned, as applicable) equipment rented from a third party, the cost of installation and dismantling are not allowable if such costs are included in the rental rate; plus

26.2.6 Necessary fees charged by governmental entities; plus

26.2.7 Necessary construction-related service fees charged by non-governmental entities, such as landfill tipping fees; plus

26.2.8 Reasonable rental costs of non-**Contractor**-owned (or non-**Subcontractor**-owned, as applicable) necessary plant and equipment other than **Small Tools**, plus fuel/energy costs. Except for fuel costs for pick-up trucks which shall be reimbursed based on a consumption of five (5) gallons per shift, fuel costs shall be reimbursed based on actual costs or, in the absence of auditable documentation, the following fuel consumption formula per hour of operation: $(.035) \times (\text{HP rating}) \times (\text{Fuel cost/gallon})$. In lieu of renting, the **City** reserves the right to direct the purchase of non-operating equipment (scaffolding, sheeting systems, road plates, etc.), with payment on a purchase-salvage/life cycle basis, if less than the projected rental costs; plus

26.2.9 Workers' Compensation Insurance, and any insurance coverage expressly required by the **City** for the performance of the **Extra Work** which is different than the types of insurance required by Article 22 and Schedule A of the General Conditions. The cost of Workers' Compensation Insurance is subject to applicable payroll limitation caps and shall be based upon the carrier's Manual Rate for such insurance derived from the applicable class Loss Cost ("LC") and carrier's Lost Cost Multiplier ("LCM") approved by the New York State Department of Financial Services, and with the exception of experience rating, rate modifiers as promulgated by the New York Compensation Insurance Rating Board ("NYCIRB"); plus

26.2.10 Additional costs incurred as a result of the **Extra Work** for performance and payment bonds; plus

26.2.11 Twelve percent (12%) percent of the total of items in Articles 26.2.1 through 26.2.5 as compensation for overhead, except that no percentage for overhead will be allowed on **Payroll Taxes** or on the premium portion of overtime pay or on sales and personal property taxes. Overhead shall include without limitation, all costs and expenses in connection with administration, management superintendence, small tools, and insurance required by Schedule A of the General Conditions other than Workers' Compensation Insurance; plus

26.2.12 Ten (10%) percent of the total of items in Articles 26.2.1 through 26.2.5, plus the items in Article 26.2.11, as compensation for profit, except that no percentage for profit will be allowed on **Payroll Taxes** or on the premium portion of overtime pay or on sales and personal property taxes; plus

26.2.13 Five (5%) percent of the total of items in Articles 26.2.6 through 26.2.10 as compensation for overhead and profit.

26.3 Where the **Extra Work** is performed in whole or in part by other than the **Contractor's** own forces pursuant to Article 26.2, the **Contractor** shall be paid, subject to pre-audit by the **Engineering Audit Officer**, the cost of such **Work** computed in accordance with Article 26.2 above, plus an additional allowance of five (5%) percent to cover the **Contractor's** overhead and profit.

26.4 Where a change is ordered, involving both **Extra Work** and omitted or reduced **Contract Work**, the **Contract** price shall be adjusted, subject to pre-audit by the **EAO**, in an amount based on the difference between the cost of such **Extra Work** and of the omitted or reduced **Work**.

26.5 Where the **Contractor** and the **Commissioner** can agree upon a fixed price for **Extra Work** in accordance with Article 25.3.2 or another method of payment for **Extra Work** in accordance with Article

25.3.4, or for **Extra Work** ordered in connection with omitted **Work**, such method, subject to pre-audit by the **EAO**, may, at the option of the **Commissioner**, be substituted for the cost plus a percentage method provided in Article 26.2; provided, however, that if the **Extra Work** is performed by a **Subcontractor**, the **Contractor** shall not be entitled to receive more than an additional allowance of five (5%) percent for overhead and profit over the cost of such **Subcontractor's Work** as computed in accordance with Article 26.2.

ARTICLE 27. RESOLUTION OF DISPUTES

27.1 All disputes between the **City** and the **Contractor** of the kind delineated in this Article 27.1 that arise under, or by virtue of, this **Contract** shall be finally resolved in accordance with the provisions of this Article 27 and the **PPB Rules**. This procedure for resolving all disputes of the kind delineated herein shall be the exclusive means of resolving any such disputes.

27.1.1 This Article 27 shall not apply to disputes concerning matters dealt with in other sections of the **PPB Rules**, or to disputes involving patents, copyrights, trademarks, or trade secrets (as interpreted by the courts of New York State) relating to proprietary rights in computer software.

27.1.2 This Article 27 shall apply only to disputes about the scope of **Work** delineated by the **Contract**, the interpretation of **Contract** documents, the amount to be paid for **Extra Work** or disputed work performed in connection with the **Contract**, the conformity of the **Contractor's Work** to the **Contract**, and the acceptability and quality of the **Contractor's Work**; such disputes arise when the **Engineer, Resident Engineer, Engineering Audit Officer**, or other designee of the **Commissioner** makes a determination with which the **Contractor** disagrees.

27.2 All determinations required by this Article 27 shall be made in writing clearly stated, with a reasoned explanation for the determination based on the information and evidence presented to the party making the determination. Failure to make such determination within the time required by this Article 27 shall be deemed a non-determination without prejudice that will allow application to the next level.

27.3 During such time as any dispute is being presented, heard, and considered pursuant to this Article 27, the **Contract** terms shall remain in force and the **Contractor** shall continue to perform **Work** as directed by the **ACCO** or the **Engineer**. Failure of the **Contractor** to continue **Work** as directed shall constitute a waiver by the **Contractor** of its claim.

27.4 Presentation of Disputes to **Commissioner**.

Notice of Dispute and Agency Response. The **Contractor** shall present its dispute in writing ("Notice of Dispute") to the **Commissioner** within thirty (30) Days of receiving written notice of the determination or action that is the subject of the dispute. This notice requirement shall not be read to replace any other notice requirements contained in the **Contract**. The Notice of Dispute shall include all the facts, evidence, documents, or other basis upon which the **Contractor** relies in support of its position, as well as a detailed computation demonstrating how any amount of money claimed by the **Contractor** in the dispute was arrived at. Within thirty (30) Days after receipt of the detailed written submission comprising the complete Notice of Dispute, the **Engineer, Resident Engineer, Engineering Audit Officer**, or other designee of the **Commissioner** shall submit to the **Commissioner** all materials he or she deems pertinent to the dispute. Following initial submissions to the **Commissioner**, either party may demand of the other the production of any document or other material the demanding party believes may be relevant to the dispute. The requested party shall produce all relevant materials that are not otherwise

protected by a legal privilege recognized by the courts of New York State. Any question of relevancy shall be determined by the **Commissioner** whose decision shall be final. Willful failure of the **Contractor** to produce any requested material whose relevancy the **Contractor** has not disputed, or whose relevancy has been affirmatively determined, shall constitute a waiver by the **Contractor** of its claim.

27.4.1 **Commissioner Inquiry.** The **Commissioner** shall examine the material and may, in his or her discretion, convene an informal conference with the **Contractor**, the **ACCO**, and the **Engineer, Resident Engineer, Engineering Audit Officer**, or other designee of the **Commissioner** to resolve the issue by mutual consent prior to reaching a determination. The **Commissioner** may seek such technical or other expertise as he or she shall deem appropriate, including the use of neutral mediators, and require any such additional material from either or both parties as he or she deems fit. The **Commissioner's** ability to render, and the effect of, a decision hereunder shall not be impaired by any negotiations in connection with the dispute presented, whether or not the **Commissioner** participated therein. The **Commissioner** may or, at the request of any party to the dispute, shall compel the participation of any **Other Contractor** with a contract related to the **Work** of this **Contract**, and that **Contractor** shall be bound by the decision of the **Commissioner**. Any **Other Contractor** thus brought into the dispute resolution proceeding shall have the same rights and obligations under this Article 27 as the **Contractor** initiating the dispute.

27.4.2 **Commissioner Determination.** Within thirty (30) **Days** after the receipt of all materials and information, or such longer time as may be agreed to by the parties, the **Commissioner** shall make his or her determination and shall deliver or send a copy of such determination to the **Contractor**, the **ACCO**, and **Engineer, Resident Engineer, Engineering Audit Officer**, or other designee of the **Commissioner**, as applicable, together with a statement concerning how the decision may be appealed.

27.4.3 **Finality of Commissioner's Decision.** The **Commissioner's** decision shall be final and binding on all parties, unless presented to the Contract Dispute Resolution Board pursuant to this Article 27. The **City** may not take a petition to the Contract Dispute Resolution Board. However, should the **Contractor** take such a petition, the **City** may seek, and the Contract Dispute Resolution Board may render, a determination less favorable to the **Contractor** and more favorable to the **City** than the decision of the **Commissioner**.

27.5 **Presentation of Dispute to the Comptroller.** Before any dispute may be brought by the **Contractor** to the Contract Dispute Resolution Board, the **Contractor** must first present its claim to the **Comptroller** for his or her review, investigation, and possible adjustment.

27.5.1 **Time, Form, and Content of Notice.** Within thirty (30) **Days** of its receipt of a decision by the **Commissioner**, the **Contractor** shall submit to the **Comptroller** and to the **Commissioner** a Notice of Claim regarding its dispute with the **Agency**. The Notice of Claim shall consist of (i) a brief written statement of the substance of the dispute, the amount of money, if any, claimed and the reason(s) the **Contractor** contends the dispute was wrongly decided by the **Commissioner**; (ii) a copy of the written decision of the **Commissioner**; and (iii) a copy of all materials submitted by the **Contractor** to the **Agency**, including the Notice of Dispute. The **Contractor** may not present to the **Comptroller** any material not presented to the **Commissioner**, except at the request of the **Comptroller**.

27.5.2 **Response.** Within thirty (30) **Days** of receipt of the Notice of Claim, the **Agency** shall make available to the **Comptroller** a copy of all material submitted by the **Agency** to the **Commissioner** in connection with the dispute. The **Agency** may not present to the

Comptroller any material not presented to the **Commissioner** except at the request of the **Comptroller**.

27.5.3 **Comptroller Investigation.** The **Comptroller** may investigate the claim in dispute and, in the course of such investigation, may exercise all powers provided in Sections 7-201 and 7-203 of the Administrative Code. In addition, the **Comptroller** may demand of either party, and such party shall provide, whatever additional material the **Comptroller** deems pertinent to the claim, including original business records of the **Contractor**. Willful failure of the **Contractor** to produce within fifteen (15) **Days** any material requested by the **Comptroller** shall constitute a waiver by the **Contractor** of its claim. The **Comptroller** may also schedule an informal conference to be attended by the **Contractor**, **Agency** representatives, and any other personnel desired by the **Comptroller**.

27.5.4 **Opportunity of Comptroller to Compromise or Adjust Claim.** The **Comptroller** shall have forty-five (45) **Days** from his or her receipt of all materials referred to in Article 27.5.3 to investigate the disputed claim. The period for investigation and compromise may be further extended by agreement between the **Contractor** and the **Comptroller**, to a maximum of ninety (90) **Days** from the **Comptroller's** receipt of all materials. The **Contractor** may not present its petition to the Contract Dispute Resolution Board until the period for investigation and compromise delineated in this Article 27.5.4 has expired. In compromising or adjusting any claim hereunder, the **Comptroller** may not revise or disregard the terms of the **Contract** between the parties.

27.6 **Contract Dispute Resolution Board.** There shall be a Contract Dispute Resolution Board composed of:

27.6.1 The chief administrative law judge of the Office of Administrative Trials and Hearings (OATH) or his/her designated OATH administrative law judge, who shall act as chairperson, and may adopt operational procedures and issue such orders consistent with this Article 27 as may be necessary in the execution of the Contract Dispute Resolution Board's functions, including, but not limited to, granting extensions of time to present or respond to submissions;

27.6.2 The **CCPO** or his/her designee; any designee shall have the requisite background to consider and resolve the merits of the dispute and shall not have participated personally and substantially in the particular matter that is the subject of the dispute or report to anyone who so participated; and

27.6.3 A person with appropriate expertise who is not an employee of the **City**. This person shall be selected by the presiding administrative law judge from a prequalified panel of individuals, established and administered by OATH with appropriate background to act as decision-makers in a dispute. Such individual may not have a contract or dispute with the **City** or be an officer or employee of any company or organization that does, or regularly represents persons, companies, or organizations having disputes with the **City**.

27.7 **Petition to the Contract Dispute Resolution Board.** In the event the claim has not been settled or adjusted by the **Comptroller** within the period provided in this Article 27, the **Contractor**, within thirty (30) **Days** thereafter, may petition the Contract Dispute Resolution Board to review the **Commissioner's** determination.

27.7.1 **Form and Content of Petition by Contractor.** The **Contractor** shall present its dispute to the Contract Dispute Resolution Board in the form of a petition, which shall

include (i) a brief written statement of the substance of the dispute, the amount of money, if any, claimed, and the reason(s) the **Contractor** contends the dispute was wrongly decided by the **Commissioner**; (ii) a copy of the written Decision of the **Commissioner**, (iii) copies of all materials submitted by the **Contractor** to the Agency; (iv) a copy of the written decision of the **Comptroller**, if any, and (v) copies of all correspondence with, or written material submitted by the **Contractor**, to the **Comptroller**. The **Contractor** shall concurrently submit four (4) complete sets of the Petition: one set to the **City Corporation Counsel** (Attn: Commercial and Real Estate Litigation Division) and three (3) sets to the Contract Dispute Resolution Board at OATH's offices with proof of service on the **City Corporation Counsel**. In addition, the **Contractor** shall submit a copy of the written statement of the substance of the dispute, cited in (i) above, to both the **Commissioner** and the **Comptroller**.

27.7.2 **Agency Response.** Within thirty (30) **Days** of its receipt of the Petition by the **City Corporation Counsel**, the **Agency** shall respond to the brief written statement of the **Contractor** and make available to the Contract Dispute Resolution Board all material it submitted to the **Commissioner** and **Comptroller**. Three (3) complete copies of the **Agency** response shall be provided to the Contract Dispute Resolution Board and one to the **Contractor**. Extensions of time for submittal of the **Agency** response shall be given as necessary upon a showing of good cause or, upon consent of the parties, for an initial period of up to thirty (30) **Days**.

27.7.3 **Further Proceedings.** The Contract Dispute Resolution Board shall permit the **Contractor** to present its case by submission of memoranda, briefs, and oral argument. The Contract Dispute Resolution Board shall also permit the **Agency** to present its case in response to the **Contractor** by submission of memoranda, briefs, and oral argument. If requested by the **City Corporation Counsel**, the **Comptroller** shall provide reasonable assistance in the preparation of the **Agency's** case. Neither the **Contractor** nor the **Agency** may support its case with any documentation or other material that was not considered by the **Comptroller**, unless requested by the Contract Dispute Resolution Board. The Contract Dispute Resolution Board, in its discretion, may seek such technical or other expert advice as it shall deem appropriate and may seek, on its own or upon application of a party, any such additional material from any party as it deems fit. The Contract Dispute Resolution Board, in its discretion, may combine more than one dispute between the parties for concurrent resolution.

27.7.4 **Contract Dispute Resolution Board Determination.** Within forty-five (45) **Days** of the conclusion of all written submissions and oral arguments, the Contract Dispute Resolution Board shall render a written decision resolving the dispute. In an unusually complex case, the Contract Dispute Resolution Board may render its decision in a longer period, not to exceed ninety (90) **Days**, and shall so advise the parties at the commencement of this period. The Contract Dispute Resolution Board's decision must be consistent with the terms of the **Contract**. Decisions of the Contract Dispute Resolution Board shall only resolve matters before the Contract Dispute Resolution Board and shall not have precedential effect with respect to matters not before the Contract Dispute Resolution Board.

27.7.5 **Notification of Contract Dispute Resolution Board Decision.** The Contract Dispute Resolution Board shall send a copy of its decision to the **Contractor**, the **ACCO**, the **Engineer**, the **Comptroller**, the **City Corporation Counsel**, the **CCPO**, and the **PPB**. A decision in favor of the **Contractor** shall be subject to the prompt payment provisions of the **PPB Rules**. The Required Payment Date shall be thirty (30) **Days** after the date the parties are formally notified of the Contract Dispute Resolution Board's decision.

27.7.6 Finality of Contract Dispute Resolution Board Decision. The Contract Dispute Resolution

Board's decision shall be final and binding on all parties. Any party may seek review of the Contract Dispute Resolution Board's decision solely in the form of a challenge, filed within four (4) months of the date of the Contract Dispute Resolution Board's decision, in a court of competent jurisdiction of the State of New York, County of New York pursuant to Article 78 of the Civil Practice Law and Rules. Such review by the court shall be limited to the question of whether or not the Contract Dispute Resolution Board's decision was made in violation of lawful procedure, was affected by an error of Law, or was arbitrary and capricious or an abuse of discretion. No evidence or information shall be introduced or relied upon in such proceeding that was not presented to the Contract Dispute Resolution Board in accordance with this Article 27.

27.8 Any termination, cancellation, or alleged breach of the Contract prior to or during the pendency of any proceedings pursuant to this Article 27 shall not affect or impair the ability of the Commissioner or Contract Dispute Resolution Board to make a binding and final decision pursuant to this Article 27.

ARTICLE 28. RECORD KEEPING FOR EXTRA OR DISPUTED WORK OR WORK ON A TIME & MATERIALS BASIS

28.1 While the Contractor or any of its Subcontractors is performing Work on a time and material basis or Extra Work on a time and material basis ordered by the Commissioner under Article 25, or where the Contractor believes that it or any of its Subcontractors is performing Extra Work but a final determination by Agency has not been made, or the Contractor or any of its Subcontractors is performing disputed Work (whether on or off the Site), or complying with a determination or order under protest in accordance with Articles 11, 27, and 30, in each such case the Contractor shall furnish the Resident Engineer daily with three (3) copies of written statements signed by the Contractor's representative at the Site showing:

28.1.1 The name, trade, and number of each worker employed on such Work or engaged in complying with such determination or order, the number of hours employed, and the character of the Work each is doing; and

28.1.2 The nature and quantity of any materials, plant and equipment furnished or used in connection with the performance of such Work or compliance with such determination or order, and from whom purchased or rented.

28.2 A copy of such statement will be countersigned by the Resident Engineer, noting thereon any items not agreed to or questioned, and will be returned to the Contractor within two (2) Days after submission.

28.3 The Contractor and its Subcontractors, when required by the Commissioner, or the Comptroller, shall also produce for inspection, at the office of the Contractor or Subcontractor, any and all of its books, bid documents, financial statements, vouchers, records, daily job diaries and reports, and cancelled checks, and any other documents relating to showing the nature and quantity of the labor, materials, plant and equipment actually used in the performance of such Work, or in complying with such determination or order, and the amounts expended therefor, and shall permit the Commissioner and the Comptroller to make such extracts therefrom, or copies thereof, as they or either of them may desire.

28.4 In connection with the examination provided for herein, the Commissioner, upon demand therefor, will produce for inspection by the Contractor such records as the Agency may have with

respect to such **Extra Work** or disputed **Work** performed under protest pursuant to order of the **Commissioner**, except those records and reports which may have been prepared for the purpose of determining the accuracy and validity of the **Contractor's** claim.

28.5 Failure to comply strictly with these requirements shall constitute a waiver of any claim for extra compensation or damages on account of the performance of such **Work** or compliance with such determination or order.

ARTICLE 29. OMITTED WORK

29.1 If any **Contract Work** in a lump sum **Contract**, or if any part of a lump sum item in a unit price, lump sum, or percentage-bid **Contract** is omitted by the **Commissioner** pursuant to Article 33, the **Contract** price, subject to audit by the EAO, shall be reduced by a pro rata portion of the lump sum bid amount based upon the percent of **Work** omitted subject to Article 29.4. For the purpose of determining the pro rata portion of the lump sum bid amount, the bid breakdown submitted in accordance with Article 41 shall be considered, but shall not be the determining factor.

29.2 If the whole of a lump sum item or units of any other item is so omitted by the **Commissioner** in a unit price, lump sum, or percentage-bid **Contract**, then no payment will be made therefor except as provided in Article 29.4.

29.3 For units that have been ordered but are only partially completed, the unit price shall be reduced by a pro rata portion of the unit price bid based upon the percentage of **Work** omitted subject to Article 29.4.

29.4 In the event the **Contractor**, with respect to any omitted **Work**, has purchased any non-cancelable material and/or equipment that is not capable of use except in the performance of this **Contract** and has been specifically fabricated for the sole purpose of this **Contract**, but not yet incorporated into the **Work**, the **Contractor** shall be paid for such material and/or equipment in accordance with Article 64.2.1(b); provided, however, such payment is contingent upon the **Contractor's** delivery of such material and/or equipment in acceptable condition to a location designated by the **City**.

29.5 The **Contractor** agrees to make no claim for damages or for loss of overhead and profit with regard to any omitted **Work**.

ARTICLE 30. NOTICE AND DOCUMENTATION OF COSTS AND DAMAGES; PRODUCTION OF FINANCIAL RECORDS

30.1 If the **Contractor** shall claim to be sustaining damages by reason of any act or omission of the **City** or its agents, it shall submit to the **Commissioner** within forty-five (45) **Days** from the time such damages are first incurred, and every thirty (30) **Days** thereafter for as long as such damages are incurred, verified statements of the details and the amounts of such damages, together with documentary evidence of such damages. The **Contractor** may submit any of the above statements within such additional time as may be granted by the **Commissioner** in writing upon written request therefor. Failure of the **Commissioner** to respond in writing to a written request for additional time within thirty (30) **Days** shall be deemed a denial of the request. On failure of the **Contractor** to strictly comply with the foregoing provisions, such claims shall be deemed waived and no right to recover on such claims shall exist. Damages that the **Contractor** may claim in any action or dispute resolution procedure arising under or by reason of this **Contract** shall not be different from or in excess of the statements and documentation made pursuant to this Article 30.

30.2 In addition to the foregoing statements, the **Contractor** shall, upon notice from the **Commissioner**, produce for examination at the **Contractor's** office, by the **Engineer, Architect or Project Manager**, all of its books of account, bills, invoices, payrolls, subcontracts, time books, daily reports, bank deposit books, bank statements, check books, and cancelled checks, showing all of its acts and transactions in connection with or relating to or arising by reason of this **Contract**, and submit itself and persons in its employment, for examination under oath by any person designated by the **Commissioner** or **Comptroller** to investigate claims made or disputes against the **City** under this **Contract**. At such examination, a duly authorized representative of the **Contractor** may be present.

30.3 In addition to the statements required under Article 28 and this Article 30, the **Contractor** and/or its **Subcontractor** shall, within thirty (30) **Days** upon notice from the **Commissioner** or **Comptroller**, produce for examination at the **Contractor's** and/or **Subcontractor's** office, by a representative of either the **Commissioner** or **Comptroller**, all of its books of account, bid documents, financial statements, accountant workpapers, bills, invoices, payrolls, subcontracts, time books, daily reports, bank deposit books, bank statements, check books, and cancelled checks, showing all of its acts and transactions in connection with or relating to or arising by reason of this **Contract**. Further, the **Contractor** and/or its **Subcontractor** shall submit any person in its employment, for examination under oath by any person designated by the **Commissioner** or **Comptroller** to investigate claims made or disputes against the **City** under this **Contract**. At such examination, a duly authorized representative of the **Contractor** may be present.

30.4 Unless the information and examination required under Article 30.3 is provided by the **Contractor** and/or its **Subcontractor** upon thirty (30) **Days'** notice from the **Commissioner** or **Comptroller**, or upon the **Commissioner's** or **Comptroller's** written authorization to extend the time to comply, the **City** shall be released from all claims arising under, relating to or by reason of this **Contract**, except for sums certified by the **Commissioner** to be due under the provisions of this **Contract**. It is further stipulated and agreed that no person has the power to waive any of the foregoing provisions and that in any action or dispute resolution procedure against the **City** to recover any sum in excess of the sums certified by the **Commissioner** to be due under or by reason of this **Contract**, the **Contractor** must allege in its complaint and prove, at trial or during such dispute resolution procedure, compliance with the provisions of this Article 30.

30.5 In addition, after the commencement of any action or dispute resolution procedure by the **Contractor** arising under or by reason of this **Contract**, the **City** shall have the right to require the **Contractor** to produce for examination under oath, up until the trial of the action or hearing before the Contract Dispute Resolution Board, the books and documents described in Article 30.3 and submit itself and all persons in its employ for examination under oath. If this Article 30 is not complied with as required, then the **Contractor** hereby consents to the dismissal of the action or dispute resolution procedure.

CHAPTER VII
POWERS OF THE RESIDENT ENGINEER,
THE ENGINEER OR ARCHITECT AND THE COMMISSIONER

ARTICLE 31. THE RESIDENT ENGINEER

31.1 The **Resident Engineer** shall have the power to inspect, supervise, and control the performance of the **Work**, subject to review by the **Commissioner**. The **Resident Engineer** shall not, however, have the power to issue an **Extra Work** order, except as specifically designated in writing by the **Commissioner**.

ARTICLE 32. THE ENGINEER OR ARCHITECT OR PROJECT MANAGER

32.1 The **Engineer** or **Architect** or **Project Manager**, in addition to those matters elsewhere herein delegated to the **Engineer** and expressly made subject to his/her determination, direction or approval, shall have the power, subject to review by the **Commissioner**:

32.1.1 To determine the amount, quality, and location of the **Work** to be paid for hereunder; and

32.1.2 To determine all questions in relation to the **Work**, to interpret the **Contract Drawings, Specifications, and Addenda**, and to resolve all patent inconsistencies or ambiguities therein; and

32.1.3 To determine how the **Work** of this **Contract** shall be coordinated with **Work** of **Other Contractors** engaged simultaneously on this **Project**, including the power to suspend any part of the **Work**, but not the whole thereof; and

32.1.4 To make minor changes in the **Work** as he/she deems necessary, provided such changes do not result in a net change in the cost to the **City** or to the **Contractor** of the **Work** to be done under the **Contract**; and

32.1.5 To amplify the **Contract Drawings**, add explanatory information and furnish additional **Specifications** and drawings, consistent with this **Contract**.

32.2 The foregoing enumeration shall not imply any limitation upon the power of the **Engineer** or **Architect** or **Project Manager**, for it is the intent of this **Contract** that all of the **Work** shall generally be subject to his/her determination, direction, and approval, except where the determination, direction or approval of someone other than the **Engineer** or **Architect** or **Project Manager** is expressly called for herein.

32.3 The **Engineer** or **Architect** or **Project Manager** shall not, however, have the power to issue an **Extra Work** order, except as specifically designated in writing by the **Commissioner**.

ARTICLE 33. THE COMMISSIONER

33.1 The **Commissioner**, in addition to those matters elsewhere herein expressly made subject to his/her determination, direction or approval, shall have the power:

33.1.1 To review and make determinations on any and all questions in relation to this **Contract** and its performance; and

33.1.2 To modify or change this **Contract** so as to require the performance of **Extra Work** (subject, however, to the limitations specified in Article 25) or the omission of **Contract Work**; and

33.1.3 To suspend the whole or any part of the **Work** whenever in his/her judgment such suspension is required:

33.1.3(a) In the interest of the **City** generally; or

33.1.3(b) To coordinate the **Work** of the various contractors engaged on this **Project** pursuant to the provisions of Article 12; or

33.1.3(c) To expedite the completion of the entire **Project** even though the completion of this particular **Contract** may thereby be delayed.

ARTICLE 34. NO ESTOPPEL

34.1 Neither the **City** nor any **Agency**, official, agent or employee thereof, shall be bound, precluded or estopped by any determination, decision, approval, order, letter, payment or certificate made or given under or in connection with this **Contract** by the **City**, the **Commissioner**, the **Engineer**, the **Resident Engineer**, or any other official, agent or employee of the **City**, either before or after the final completion and acceptance of the **Work** and payment therefor:

34.1.1 From showing the true and correct classification, amount, quality or character of the **Work** actually done; or that any such determination, decision, order, letter, payment or certificate was untrue, incorrect or improperly made in any particular, or that the **Work**, or any part thereof, does not in fact conform to the requirements of this **Contract**; and

34.1.2 From demanding and recovering from the **Contractor** any overpayment made to it, or such damages as the **City** may sustain by reason of the **Contractor's** failure to perform each and every part of its **Contract**.

CHAPTER VIII LABOR PROVISIONS

ARTICLE 35. EMPLOYEES

35.1 The **Contractor** and its **Subcontractors** shall not employ on the **Work**:

35.1.1 Anyone who is not competent, faithful and skilled in the **Work** for which he/she shall be employed; and whenever the **Commissioner** shall inform the **Contractor**, in writing, that any employee is, in his/her opinion, incompetent, unfaithful or disobedient, that employee shall be discharged from the **Work** forthwith, and shall not again be employed upon it; or

35.1.2 Any labor, materials or means whose employment, or utilization during the course of this **Contract**, may tend to or in any way cause or result in strikes, work stoppages, delays, suspension of **Work** or similar troubles by workers employed by the **Contractor** or its **Subcontractors**, or by any of the trades working in or about the buildings and premises where **Work** is being performed under this **Contract**, or by **Other Contractors** or their **Subcontractors** pursuant to other contracts, or on any other building or premises owned or operated by the **City**, its **Agencies**, departments, boards or authorities. Any violation by the **Contractor** of this requirement may, upon certification of the **Commissioner**, be considered as proper and sufficient cause for declaring the **Contractor** to be in default, and for the **City** to take action against it as set forth in Chapter X of this **Contract**, or such other article of this **Contract** as the **Commissioner** may deem proper; or

35.1.3 In accordance with Section 220.3-e of the Labor Law of the State of New York (hereinafter "Labor Law"), the **Contractor** and its **Subcontractors** shall not employ on the **Work** any apprentice, unless he/she is a registered individual, under a bona fide program

registered with the New York State Department of Labor. The allowable ratio of apprentices to journey-level workers in any craft classification shall not be greater than the ratio permitted to the **Contractor** as to its work force on any job under the registered program. Any employee listed on a payroll at an apprentice wage rate, who is not registered as above, shall be paid the wage rate determined by the **Comptroller** of the **City** for the classification of **Work** actually performed. The **Contractor** or **Subcontractor** will be required to furnish written evidence of the registration of its program and apprentices as well as all the appropriate ratios and wage rates, for the area of the construction prior to using any apprentices on the **Contract Work**.

35.2 If the total cost of the **Work** under this **Contract** is at least two hundred fifty thousand (\$250,000) dollars, all laborers, workers, and mechanics employed in the performance of the **Contract** on the public work site, either by the **Contractor**, **Subcontractor** or other person doing or contracting to do the whole or a part of the **Work** contemplated by the **Contract**, shall be certified prior to performing any **Work** as having successfully completed a course in construction safety and health approved by the United States Department of Labor's Occupational Safety and Health Administration that is at least ten (10) hours in duration.

35.3 In accordance with Local Law Nos. 30-2012 and 33-2012, codified at sections 6-132 and 12-113 of the Administrative Code, respectively,

35.3.1 The **Contractor** shall not take an adverse personnel action with respect to an officer or employee in retaliation for such officer or employee making a report of information concerning conduct which such officer or employee knows or reasonably believes to involve corruption, criminal activity, conflict of interest, gross mismanagement or abuse of authority by any officer or employee relating to this **Contract** to (a) the Commissioner of the Department of Investigation, (b) a member of the New York City Council, the Public Advocate, or the **Comptroller**, or (c) the CCPO, ACCO, Agency head, or **Commissioner**.

35.3.2 If any of the **Contractor's** officers or employees believes that he or she has been the subject of an adverse personnel action in violation of Article 35.3.1, he or she shall be entitled to bring a cause of action against the **Contractor** to recover all relief necessary to make him or her whole. Such relief may include but is not limited to: (a) an injunction to restrain continued retaliation, (b) reinstatement to the position such employee would have had but for the retaliation or to an equivalent position, (c) reinstatement of full fringe benefits and seniority rights, (d) payment of two times back pay, plus interest, and (e) compensation for any special damages sustained as a result of the retaliation, including litigation costs and reasonable attorney's fees.

35.3.3 The **Contractor** shall post a notice provided by the **City** in a prominent and accessible place on any site where work pursuant to the **Contract** is performed that contains information about:

35.3.3(a) how its employees can report to the New York City Department of Investigation allegations of fraud, false claims, criminality or corruption arising out of or in connection with the **Contract**; and

35.3.3(b) the rights and remedies afforded to its employees under Administrative Code sections 7-805 (the New York City False Claims Act) and 12-113 (the Whistleblower Protection Expansion Act) for lawful acts taken in connection with the reporting of allegations of fraud, false claims, criminality or corruption in connection with the **Contract**.

35.3.4 For the purposes of this Article 35.3, "adverse personnel action" includes dismissal, demotion, suspension, disciplinary action, negative performance evaluation, any action resulting in loss of staff, office space, equipment or other benefit, failure to appoint, failure to promote, or any transfer or assignment or failure to transfer or assign against the wishes of the affected officer or employee.

35.3.5 This Article 35.3 is applicable to all of the **Contractor's Subcontractors** having subcontracts with a value in excess of \$100,000; accordingly, the **Contractor** shall include this rider in all subcontracts with a value a value in excess of \$100,000.

35.4 Article 35.3 is not applicable to this **Contract** if it is valued at \$100,000 or less. Articles 35.3.1, 35.3.2, 35.3.4, and 35.3.5 are not applicable to this **Contract** if it was solicited pursuant to a finding of an emergency.

ARTICLE 36. NO DISCRIMINATION

36.1 The **Contractor** specifically agrees, as required by Labor Law Section 220-e, as amended, that:

36.1.1 In the hiring of employees for the performance of **Work** under this **Contract** or any subcontract hereunder, neither the **Contractor, Subcontractor**, nor any person acting on behalf of such **Contractor** or **Subcontractor**, shall by reason of race, creed, color or national origin discriminate against any citizen of the State of New York who is qualified and available to perform the **Work** to which the employment relates;

36.1.2 Neither the **Contractor, Subcontractor**, nor any person on its behalf shall, in any manner, discriminate against or intimidate any employee hired for the performance of **Work** under this **Contract** on account of race, creed, color or national origin;

36.1.3 There may be deducted from the amount payable to the **Contractor** by the **City** under this **Contract** a penalty of fifty (\$50.00) dollars for each person for each **Day** during which such person was discriminated against or intimidated in violation of the provisions of this **Contract**; and

36.1.4 This **Contract** may be cancelled or terminated by the **City** and all moneys due or to become due hereunder may be forfeited, for a second or any subsequent violation of the terms or conditions of this Article 36.

36.1.5 This Article 36 covers all construction, alteration and repair of any public building or public work occurring in the State of New York and the manufacture, sale, and distribution of materials, equipment, and supplies to the extent that such operations are performed within the State of New York pursuant to this **Contract**.

36.2 The **Contractor** specifically agrees, as required by Section 6-108 of the Administrative Code, as amended, that:

36.2.1 It shall be unlawful for any person engaged in the construction, alteration or repair of buildings or engaged in the construction or repair of streets or highways pursuant to a **Contract** with the **City** or engaged in the manufacture, sale or distribution of materials, equipment or supplies pursuant to a **Contract** with the **City** to refuse to employ or to refuse to continue in any employment any person on account of the race, color or creed of such person.

36.2.2 It shall be unlawful for any person or any servant, agent or employee of any person, described in Article 36.1.2, to ask, indicate or transmit, orally or in writing, directly or indirectly, the race, color or creed or religious affiliation of any person employed or seeking employment from such person, firm or corporation.

36.2.3 Breach of the foregoing provisions shall be deemed a violation of a material provision of this **Contract**.

36.2.4 Any person, or the employee, manager or owner of or officer of such firm or corporation who shall violate any of the provisions of this Article 36.2 shall, upon conviction thereof, be punished by a fine of not more than one hundred (\$100.00) dollars or by imprisonment for not more than thirty (30) **Days**, or both.

36.3 This **Contract** is subject to the requirements of Executive Order No. 50 (1980) ("E.O. 50"), as revised, and the rules and regulations promulgated thereunder. No contract will be awarded unless and until these requirements have been complied with in their entirety. By signing this **Contract**, the **Contractor** agrees that it:

36.3.1 Will not engage in any unlawful discrimination against any employee or applicant for employment because of race, creed, color, national origin, sex, age, disability, marital status or sexual orientation with respect to all employment decisions including, but not limited to, recruitment, hiring, upgrading, demotion, downgrading, transfer, training, rates of pay or other forms of compensation, layoff, termination, and all other terms and conditions of employment; and

36.3.2 Will not engage in any unlawful discrimination in the selection of **Subcontractors** on the basis of the owner's race, color, creed, national origin, sex, age, disability, marital status or sexual orientation; and

36.3.3 Will state in all solicitations or advertisements for employees placed by or on behalf of the **Contractor** that all qualified applicants will receive consideration for employment without unlawful discrimination based on race, creed, color, national origin, sex, age, citizens status, disability, marital status, sexual orientation, or that it is an equal employment opportunity employer; and

36.3.4 Will send to each labor organization or representative of workers with which it has a collective bargaining agreement or other contract or memorandum of understanding, written notification of its equal employment opportunity commitments under E.O. 50 and the rules and regulations promulgated thereunder; and

36.3.5 Will furnish, before the award of the **Contract**, all information and reports, including an employment report, that are required by E.O. 50, the rules and regulations promulgated thereunder, and orders of the **City** Department of Business Services, Division of Labor Services (**DLS**) and will permit access to its books, records, and accounts by the **DLS** for the purposes of investigation to ascertain compliance with such rules, regulations, and orders.

36.4 The **Contractor** understands that in the event of its noncompliance with the nondiscrimination clauses of this **Contract** or with any of such rules, regulations, or orders, such noncompliance shall constitute a material breach of this **Contract** and noncompliance with E.O. 50 and the rules and regulations promulgated thereunder. After a hearing held pursuant to the rules of the **DLS**, the Director of the **DLS** may direct the **Commissioner** to impose any or all of the following sanctions:

36.4.1 Disapproval of the **Contractor**; and/or

36.4.2 Suspension or termination of the **Contract**; and/or

36.4.3 Declaring the **Contractor** in default; and/or

36.4.4 In lieu of any of the foregoing sanctions, the Director of the **DLS** may impose an employment program.

In addition to any actions taken under this **Contract**, failure to comply with E.O. 50 and the rules and regulations promulgated thereunder, in one or more instances, may result in a **City Agency** declaring the **Contractor** to be non-responsible in future procurements. The **Contractor** further agrees that it will refrain from entering into any **Contract** or **Contract** modification subject to E.O. 50 and the rules and regulations promulgated thereunder with a **Subcontractor** who is not in compliance with the requirements of E.O. 50 and the rules and regulations promulgated thereunder.

36.5 The **Contractor** specifically agrees, as required by Section 6-123 of the Administrative Code, that:

36.5.1 The **Contractor** will not engage in any unlawful discriminatory practice in violation of Title 8 of the Administrative Code; and

36.5.2 Any failure to comply with this Article 36.5 may subject the **Contractor** to the remedies set forth in Section 6-123 of the Administrative Code, including, where appropriate, sanctions such as withholding of payment, imposition of an employment program, finding the **Contractor** to be in default, cancellation of the **Contract**, or any other sanction or remedy provided by **Law** or **Contract**.

ARTICLE 37. LABOR LAW REQUIREMENTS

37.1 The **Contractor** shall strictly comply with all applicable provisions of the Labor Law, as amended. Such compliance is a material term of this **Contract**.

37.2 The **Contractor** specifically agrees, as required by Labor Law Sections 220 and 220-d, as amended, that:

37.2.1 **Hours of Work:** No laborer, worker, or mechanic in the employ of the **Contractor**, **Subcontractor** or other person doing or contracting to do the whole or a part of the **Work** contemplated by this **Contract** shall be permitted or required to work more than eight (8) hours in any one (1) **Day**, or more than five (5) **Days** in any one (1) week, except as provided in the Labor Law and in cases of extraordinary emergency including fire, flood, or danger to life or property, or in the case of national emergency when so proclaimed by the President of the United States of America.

37.2.2 In situations in which there are not sufficient laborers, workers, and mechanics who may be employed to carry on expeditiously the **Work** contemplated by this **Contract** as a result of such restrictions upon the number of hours and **Days** of labor, and the immediate commencement or prosecution or completion without undue delay of the **Work** is necessary for the preservation of the **Site** and/or for the protection of the life and limb of the persons using the same, such laborers, workers, and mechanics shall be permitted or required to

work more than eight (8) hours in any one (1) **Day**; or five (5) **Days** in any one (1) week; provided, however, that upon application of any **Contractor**, the **Commissioner** shall have first certified to the Commissioner of Labor of the State of New York (hereinafter "Commissioner of Labor") that such public **Work** is of an important nature and that a delay in carrying it to completion would result in serious disadvantage to the public; and provided, further, that such Commissioner of Labor shall have determined that such an emergency does in fact exist as provided in Labor Law Section 220.2.

37.2.3 Failure of the **Commissioner** to make such a certification to the Commissioner of Labor shall not entitle the **Contractor** to damages for delay or for any cause whatsoever.

37.2.4 Prevailing Rate of Wages: The wages to be paid for a legal day's **Work** to laborers, workers, or mechanics employed upon the **Work** contemplated by this **Contract** or upon any materials to be used thereon shall not be less than the "prevailing rate of wage" as defined in Labor Law Section 220, and as fixed by the **Comptroller** in the attached Schedule of Wage Rates and in updated schedules thereof. The prevailing wage rates and supplemental benefits to be paid are those in effect at the time the **Work** is being performed.

37.2.5 Requests for interpretation or correction in the Information for Bidders includes all requests for clarification of the classification of trades to be employed in the performance of the **Work** under this **Contract**. In the event that a trade not listed in the **Contract** is in fact employed during the performance of this **Contract**, the **Contractor** shall be required to obtain from the **Agency** the prevailing wage rates and supplementary benefits for the trades used and to complete the performance of this **Contract** at the price at which the **Contract** was awarded.

37.2.6 Minimum Wages: Except for employees whose wage is required to be fixed pursuant to Labor Law Section 220, all persons employed by the **Contractor** and any **Subcontractor** in the manufacture or furnishing of the supplies, materials, or equipment, or the furnishing of work, labor, or services, used in the performance of this **Contract**, shall be paid, without subsequent deduction or rebate unless expressly authorized by **Law**, not less than the sum mandated by **Law**.

37.3 Working Conditions: No part of the **Work**, labor or services shall be performed or rendered by the **Contractor** in any plants, factories, buildings or surroundings or under working conditions which are unsanitary or hazardous or dangerous to the health and safety of employees engaged in the performance of this **Contract**. Compliance with the safety, sanitary, and factory inspection **Laws** of the state in which the **Work** is to be performed shall be prima facie evidence of compliance with this Article 37.3.

37.4 Prevailing Wage Enforcement: The **Contractor** agrees to pay for all costs incurred by the **City** in enforcing prevailing wage requirements, including the cost of any investigation conducted by or on behalf of the **Agency** or the **Comptroller**, where the **City** discovers a failure to comply with any of the requirements of this Article 37 by the **Contractor** or its **Subcontractor(s)**. The **Contractor** also agrees that, should it fail or refuse to pay for any such investigation, the **Agency** is hereby authorized to deduct from a **Contractor's** account an amount equal to the cost of such investigation.

37.4.1 The Labor Law Section 220 and Section 220-d, as amended, provide that this **Contract** shall be forfeited and no sum paid for any **Work** done hereunder on a second conviction for willfully paying less than:

37.4.1(a) The stipulated prevailing wage scale as provided in Labor Law section 220, as amended, or

37.4.1(b) The stipulated minimum hourly wage scale as provided in Labor Law section 220-d, as amended.

37.4.2 For any breach or violation of either working conditions (Article 37.3) or minimum wages (Article 37.2.6) provisions, the party responsible therefor shall be liable to the **City** for liquidated damages, which may be withheld from any amounts due on any contracts with the **City** of such party responsible, or may be recovered in actions brought by the **City** Corporation Counsel in the name of the **City**, in addition to damages for any other breach of this **Contract**, for a sum equal to the amount of any underpayment of wages due to any employee engaged in the performance of this **Contract**. In addition, the **Commissioner** shall have the right to cancel contracts and enter into other contracts for the completion of the original contract, with or without public letting, and the original **Contractor** shall be liable for any additional cost. All sums withheld or recovered as deductions, rebates, refunds, or underpayment of wages hereunder, shall be held in a special deposit account and shall be paid without interest, on order of the **Comptroller**, directly to the employees who have been paid less than minimum rates of pay as set forth herein and on whose account such sums were withheld or recovered, provided that no claims by employees for such payments shall be entertained unless made within two (2) years from the date of actual notice to the **Contractor** of the withholding or recovery of such sums by the **City**.

37.4.3 A determination by the **Comptroller** that a **Contractor** and/or its **Subcontractor** willfully violated Labor Law Section 220 will be forwarded to the **City's** five District Attorneys for review.

37.4.4 The **Contractor's** or **Subcontractor's** noncompliance with this Article 37.4 and Labor Law Section 220 may result in an unsatisfactory performance evaluation and the **Comptroller** may also find and determine that the **Contractor** or **Subcontractor** willfully violated the New York Labor Law.

37.4.4(a) An unsatisfactory performance evaluation for noncompliance with this Article 37.4 may result in a determination that the **Contractor** is a non-responsible bidder on subsequent procurements with the **City** and thus a rejection of a future award of a contract with the **City**, as well as any other sanctions provided for by **Law**.

37.4.4(b) Labor Law Section 220-b, as amended, provides that when two (2) final determinations have been rendered against a **Contractor** or **Subcontractor** within any consecutive six (6) year period determining that such **Contractor** or **Subcontractor** has willfully failed to pay the prevailing rate of wages or to provide supplements in accordance with the Labor Law and this Article 37.4, whether such failures were concurrent or consecutive and whether or not such final determinations concerning separate public works projects are rendered simultaneously, such **Contractor** or **Subcontractor** shall be ineligible to submit a bid on or be awarded any public works contract with the **City** for a period of five (5) years from the second final determination. If the final determination involves the falsification of payroll records or the kickback of wages or supplements, the **Contractor** or **Subcontractor** shall be ineligible to submit a bid on or be awarded any public works contract with the **City** for a period of five (5) years from the first final determination.

37.4.4(c) Labor Law Section 220, as amended, provides that the **Contractor** or **Subcontractor** found to have violated this Article 37.4 may be directed to make payment of wages or supplements including interest found to be due, and the **Contractor** or **Subcontractor** may be directed to make payment of a further sum as

a civil penalty in an amount not exceeding twenty-five (25%) percent of the total amount found to be due.

37.5 The **Contractor** and its **Subcontractors** shall within ten (10) **Days** after mailing of a Notice of Award or written order, post in prominent and conspicuous places in each and every plant, factory, building, and structure where employees of the **Contractor** and its **Subcontractors** engaged in the performance of this **Contract** are employed, notices furnished by the **City**, in relation to prevailing wages and supplements, minimum wages, and other stipulations contained in Sections 220 and 220-h of the Labor Law, and the **Contractor** and its **Subcontractors** shall continue to keep such notices posted in such prominent and conspicuous places until **Final Acceptance** of the supplies, materials, equipment, or **Work**, labor, or services required to be furnished or rendered under this **Contract**.

37.6 The **Contractor** shall strictly comply with all of the provisions of Articles 37.6.1 through 37.6.5, and provide for all workers, laborers or mechanics in its employ, the following:

37.6.1 **Notices Posted At Site:** Post, in a location designated by the **City**, schedules of prevailing wages and supplements for this **Project**, a copy of all re-determinations of such schedules for the **Project**, the Workers' Compensation Law Section 51 notice, all other notices required by **Law** to be posted at the **Site**, the **City** notice that this **Project** is a public works project on which each worker is entitled to receive the prevailing wages and supplements for the occupation at which he or she is working, and all other notices which the **City** directs the **Contractor** to post. The **Contractor** shall provide a surface for such notices which is satisfactory to the **City**. The **Contractor** shall maintain and keep current such notices in a legible manner and shall replace any notice or schedule which is damaged, defaced, illegible or removed for any reason. The **Contractor** shall post such notices before commencing any **Work** on the **Site** and shall maintain such notices until all **Work** on the **Site** is complete; and

37.6.2 **Daily Site Sign-in Sheets:** Maintain daily **Site** sign-in sheets, and require that **Subcontractors** maintain daily **Site** sign-in sheets for its employees, which include blank spaces for an employee's name to be both printed and signed, job title, date started and Social Security number, the time the employee began work and the time the employee left work, until **Final Acceptance** of the supplies, materials, equipment, or **Work**, labor, or services to be furnished or rendered under this **Contract** unless exception is granted by the **Comptroller** upon application by the **Agency**. In the alternative, subject to the approval of the **CCPO**, the **Contractor** and **Subcontractor** may maintain an electronic or biometric sign-in system, which provides the information required by this Article 37.6.2; and

37.6.3 **Individual Employee Information Notices:** Distribute a notice to each worker, laborer or mechanic employed under this **Contract**, in a form provided by the **Agency**, that this **Project** is a public works project on which each worker, laborer or mechanic is entitled to receive the prevailing rate of wages and supplements for the occupation at which he or she is working. If the total cost of the **Work** under this **Contract** is at least two hundred fifty thousand (\$250,000) dollars, such notice shall also include a statement that each worker, laborer or mechanic must be certified prior to performing any **Work** as having successfully completed a course in construction safety and health approved by the United States Department of Labor's Occupational Safety and Health Administration that is at least ten (10) hours in duration. Such notice shall be distributed to each worker before he or she starts performing any **Work** of this **Contract** and with the first paycheck after July first of each year. "Worker, laborer or mechanic" includes employees of the **Contractor** and all **Subcontractors** and all employees of suppliers entering the **Site**. At the time of distribution, the **Contractor** shall have each worker, laborer or mechanic sign a statement, in a form provided by the **Agency**, certifying that the worker has received the notice required by this

Article 37.6.3, which signed statement shall be maintained with the payroll records required by this **Contract**; and

37.6.3(a) The **Contractor** and each **Subcontractor** shall notify each worker, laborer or mechanic employed under this **Contract** in writing of the prevailing rate of wages for their particular job classification. Such notification shall be given to every worker, laborer, and mechanic on their first pay stub and with every pay stub thereafter; and

37.6.4 **Site Laminated Identification Badges:** The **Contractor** shall provide laminated identification badges which include a photograph of the worker's, laborer's or mechanic's face and indicate the worker's, laborer's or mechanic's name, trade, employer's name, and employment starting date (month/day/year). Further, the **Contractor** shall require as a condition of employment on the **Site**, that each and every worker, laborer or mechanic wear the laminated identification badge at all times and that it may be seen by any representative of the **City**. The **Commissioner** may grant a written waiver from the requirement that the laminated identification badge include a photograph if the **Contractor** demonstrates that the identity of an individual wearing a laminated identification badge can be easily verified by another method; and

37.6.5 **Language Other Than English Used On Site:** Provide the **ACCO** notice when three (3) or more employees (worker and/or laborer and/or mechanic) on the **Site**, at any time, speak a language other than English. The **ACCO** will then provide the **Contractor** the notices described in Article 37.6.1 in that language or languages as may be required. The **Contractor** is responsible for all distributions under this Article 37; and

37.6.6 **Provision of Records:** The **Contractor** and **Subcontractor(s)** shall produce within five (5) **Days** on the **Site** of the **Work** and upon a written order of the **Engineer**, the **Commissioner**, the **ACCO**, the **Agency EAO**, or the **Comptroller**, such records as are required to be kept by this Article 37.6; and

37.6.7 The **Contractor** and **Subcontractor(s)** shall pay employees by check or direct deposit. If this **Contract** is for an amount greater than one million (\$1,000,000) dollars, checks issued by the **Contractor** to covered employees shall be generated by a payroll service or automated payroll system (an in-house system may be used if approved by the **Agency**). For any subcontract for an amount greater than seven hundred fifty thousand (\$750,000) dollars, checks issued by a **Subcontractor** to covered employees shall be generated by a payroll service or automated payroll system (an in-house system may be used if approved by the **Agency**); and

37.6.8 The failure of the **Contractor** or **Subcontractor(s)** to comply with the provisions of Articles 37.6.1 through 37.6.7 may result in the **Commissioner** declaring the **Contractor** in default and/or the withholding of payments otherwise due under the **Contract**.

37.7 The **Contractor** and its **Subcontractors** shall keep such employment and payroll records as are required by Section 220 of the Labor Law. The failure of the **Contractor** or **Subcontractor(s)** to comply with the provisions of this Article 37.7 may result in the **Commissioner** declaring the **Contractor** in default and/or the withholding of payments otherwise due under the **Contract**.

37.8 At the time the **Contractor** makes application for each partial payment and for final payment, the **Contractor** shall submit to the **Commissioner** a written payroll certification, in the form provided by this **Contract**, of compliance with the prevailing wage, minimum wage, and other provisions and stipulations required by Labor Law Section 220 and of compliance with the training requirements of

Labor Law Section 220-h set forth in Article 35.2. This certification of compliance shall be a condition precedent to payment and no payment shall be made to the **Contractor** unless and until each such certification shall have been submitted to and received by the **Commissioner**.

37.9 This **Contract** is executed by the **Contractor** with the express warranty and representation that the **Contractor** is not disqualified under the provisions of Section 220 of the Labor Law from the award of the **Contract**.

37.10 Any breach or violation of any of the foregoing shall be deemed a breach or violation of a material provision of this **Contract**, and grounds for cancellation thereof by the **City**.

ARTICLE 38. PAYROLL REPORTS

38.1 The **Contractor** and its **Subcontractor(s)** shall maintain on the **Site** during the performance of the **Work** the original payrolls or transcripts thereof which the **Contractor** and its **Subcontractor(s)** are required to maintain and shall submit such original payrolls or transcripts, subscribed and affirmed by it as true, within thirty (30) **Days** after issuance of its first payroll, and every thirty (30) **Days** thereafter, pursuant to Labor Law Section 220(3-a)(a)(iii). The **Contractor** and **Subcontractor(s)** shall submit such original payrolls or transcripts along with each and every payment requisition. If payment requisitions are not submitted at least once a month, the **Contractor** and its **Subcontractor(s)** shall submit original payrolls and transcripts both along with its payment requisitions and independently of its payment requisitions.

38.2 The **Contractor** shall maintain payrolls or transcripts thereof for six (6) years from the date of completion of the **Work** on this **Contract**. If such payrolls and transcripts are maintained outside of New York City after the completion of the **Work** and their production is required pursuant to this Article 38, the **Contractor** shall produce such records in New York City upon request by the **City**.

38.3 The **Contractor** and **Subcontractor(s)** shall comply with any written order, direction, or request made by the **Engineer**, the **Commissioner**, the **ACCO**, the **Agency EAO**, the **Agency Labor Law Investigator(s)**, or the **Comptroller**, to provide to the requesting party any of the following information and/or records within five (5) **Days** of such written order, direction, or request:

38.3.1 Such original payrolls or transcripts thereof subscribed and affirmed by it as true and the statements signed by each worker pursuant to this Chapter VIII; and/or

38.3.2 Attendance sheets for each **Day** on which any employee of the **Contractor** and/or any of the **Subcontractor(s)** performed **Work** on the **Site**, which attendance sheet shall be in a form acceptable to the **Agency** and shall provide information acceptable to the **Agency** to identify each such employee; and/or

38.3.3 Any other information to satisfy the **Engineer**, the **Commissioner**, the **ACCO**, the **Agency EAO**, the **Agency Labor Law Investigator(s)** or the **Comptroller**, that this Chapter VIII and the Labor Law, as to the hours of employment and prevailing rates of wages and/or supplemental benefits, are being observed.

38.4 The failure of the **Contractor** or **Subcontractor(s)** to comply with the provisions of Articles 38.1 and/or 38.2 may result in the **Commissioner** declaring the **Contractor** in default and/or the withholding of payments otherwise due under the **Contract**.

ARTICLE 39. DUST HAZARDS

39.1 Should a harmful dust hazard be created in performing the **Work** of this **Contract**, for the elimination of which appliances or methods have been approved by the Board of Standards and Appeals of the City of New York, such appliances and methods shall be installed, maintained, and effectively operated during the continuance of such harmful dust hazard. Failure to comply with this provision after notice shall make this **Contract** voidable at the sole discretion of the **City**.

CHAPTER IX PARTIAL AND FINAL PAYMENTS

ARTICLE 40. CONTRACT PRICE

40.1 The **City** shall pay, and the **Contractor** agrees to accept, in full consideration for the **Contractor's** performance of the **Work** subject to the terms and conditions hereof, the lump sum price or unit prices for which this **Contract** was awarded, plus the amount required to be paid for any **Extra Work** ordered by the **Commissioner** under Article 25, less credit for any **Work** omitted pursuant to Article 29.

ARTICLE 41. BID BREAKDOWN ON LUMP SUM

41.1 Within fifteen (15) **Days** after the commencement date specified in the **Notice to Proceed** or **Order to Work**, unless otherwise directed by the **Resident Engineer**, the **Contractor** shall submit to the **Resident Engineer** a breakdown of its bid price, or of lump sums bid for items of the **Contract**, showing the various operations to be performed under the **Contract**, as directed in the progress schedule required under Article 9, and the value of each of such operations, the total of such items to equal the lump sum price bid. Said breakdown must be approved in writing by the **Resident Engineer**.

41.2 No partial payment will be approved until the **Contractor** submits a bid breakdown that is acceptable to the **Resident Engineer**.

41.3 The **Contractor** shall also submit such other information relating to the bid breakdown as directed by the **Resident Engineer**. Thereafter, the breakdown may be used only for checking the **Contractor's** applications for partial payments hereunder, but shall not be binding upon the **City**, the **Commissioner**, or the **Engineer** for any purpose whatsoever.

ARTICLE 42. PARTIAL PAYMENTS

42.1 From time to time as the **Work** progresses satisfactorily, but not more often than once each calendar month (except where the **Commissioner** approves in writing the submission of invoices on a more frequent basis and for invoices relating to **Work** performed pursuant to a change order), the **Contractor** may submit to the **Engineer** a requisition for a partial payment in the prescribed form, which shall contain an estimate of the quantity and the fair value of the **Work** done during the payment period.

42.2 Partial payments may be made for materials, fixtures, and equipment in advance of their actual incorporation in the **Work**, as the **Commissioner** may approve, and upon the terms and conditions set forth in the General Conditions.

42.3 The **Contractor** shall also submit to the **Commissioner** in connection with every application for partial payment a verified statement in the form prescribed by the **Comptroller** setting forth the information required under Labor Law Section 220-a.

42.4 Within thirty (30) **Days** after receipt of a satisfactory payment application, and within sixty (60) **Days** after receipt of a satisfactory payment application in relation to **Work** performed pursuant to a change order, the **Engineer** will prepare and certify, and the **Commissioner** will approve, a voucher for a partial payment in the amount of such approved estimate, less any and all deductions authorized to be made by the **Commissioner** under the terms of this **Contract** or by **Law**.

ARTICLE 43. PROMPT PAYMENT

43.1 The Prompt Payment provisions of the **PPB** Rules in effect at the time of the bid will be applicable to payments made under this **Contract**. The provisions require the payment to the **Contractor** of interest on payments made after the required payment date, except as set forth in the **PPB** Rules.

43.2 The **Contractor** shall submit a proper invoice to receive payment, except where the **Contract** provides that the **Contractor** will be paid at predetermined intervals without having to submit an invoice for each scheduled payment.

43.3 Determination of interest due will be made in accordance with the **PPB** Rules.

43.4 If the **Contractor** is paid interest, the proportionate share(s) of that interest shall be forwarded by the **Contractor** to its **Subcontractor(s)**.

43.5 The **Contractor** shall pay each **Subcontractor** or **Materialman** not later than seven (7) **Days** after receipt of payment out of amounts paid to the **Contractor** by the **City** for **Work** performed by the **Subcontractor** or **Materialman** under this **Contract**.

43.5.1 If **Contractor** fails to make any payment to any **Subcontractor** or **Materialman** within seven (7) **Days** after receipt of payment by the **City** pursuant to this Article 43.5, then the **Contractor** shall pay interest on amounts due to such **Subcontractor** or **Materialman** at the rate of interest in effect on the date such payment is made by the **Contractor** computed in accordance with Section 756-b (1)(b) of the New York General Business Law. Accrual of interest shall commence on the **Day** immediately following the expiration of the seventh **Day** following receipt of payment by the **Contractor** from the **City** and shall end on the date on which payment is made.

43.6 The **Contractor** shall include in each of its subcontracts a provision requiring each **Subcontractor** to make payment to each of its **Subcontractors** or **Materialmen** for **Work** performed under this **Contract** in the same manner and within the same time period set forth above.

ARTICLE 44. SUBSTANTIAL COMPLETION PAYMENT

44.1 The **Contractor** shall submit with the **Substantial Completion** requisition:

44.1.1 A final verified statement of any pending Article 27 disputes in accordance with the **PPB** Rules and this **Contract** and any and all alleged claims against the **City**, in any way connected with or arising out of this **Contract** (including those as to which details may have been furnished pursuant to Articles 11, 27, 28, and 30) setting forth with respect to each

such claim the total amount thereof, the various items of labor and materials included therein, and the alleged value of each item; and if the alleged claim be one for delay, the alleged cause of each such delay, the period or periods of time, giving the dates when the **Contractor** claims the performance of the **Work** or a particular part thereof was delayed, and an itemized statement and breakdown of the amount claimed for each such delay.

44.1.1(a) With respect to each such claim, the **Commissioner**, the **Comptroller** and, in the event of litigation, the **City Corporation Counsel** shall have the same right to inspect, and to make extracts or copies of, the **Contractor's** books, vouchers, records, etc., as is referred to in Articles 11, 27, 28, and 30. Nothing contained in this Article 44.1.1(a) is intended to or shall relieve the **Contractor** from the obligation of complying strictly with Articles 11, 27, 28, and 30. The **Contractor** is warned that unless such claims are completely set forth as herein required, the **Contractor** upon acceptance of the **Substantial Completion** payment pursuant to this Article 44, will have waived any such claims.

44.1.2 A Final Approved Punch List.

44.1.3 Where required, a request for an extension of time to achieve **Substantial Completion** or final extension of time.

44.2 The **Commissioner** shall issue a voucher calling for payment of any part or all of the balance due for **Work** performed under the **Contract**, including monies retained under Article 21, less any and all deductions authorized to be made by the **Commissioner**, under this **Contract** or by **Law**, and less twice the amount the **Commissioner** considers necessary to ensure the completion of the balance of the **Work** by the **Contractor**. Such a payment shall be considered a partial and not a final payment. No **Substantial Completion** payment shall be made under this Article 44 where the **Contractor** failed to complete the **Work** within the time fixed for such completion in the Schedule A of the General Conditions, or within the time to which completion may have been extended, until an extension or extensions of time for the completion of **Work** have been acted upon pursuant to Article 13.

44.3 No further partial payments shall be made to the **Contractor** after **Substantial Completion**, except the **Substantial Completion** payment and payment pursuant to any **Contractor's** requisition that were properly filed with the **Commissioner** prior to the date of **Substantial Completion**; however, the **Commissioner** may grant a waiver for further partial payments after the date of **Substantial Completion** to permit payments for change order **Work** and/or release of retainage and deposits pursuant to Articles 21 and 24. Such waiver shall be in writing.

44.4 The **Contractor** acknowledges that nothing contained in this Article 44 is intended to or shall in any way diminish the force and effect of Article 13.

ARTICLE 45. FINAL PAYMENT

45.1 After completion and **Final Acceptance** of the **Work**, the **Contractor** shall submit all required certificates and documents, together with a requisition for the balance claimed to be due under the **Contract**, less the amount authorized to be retained for maintenance under Article 24. Such submission shall be within 90 days of the date of the **Commissioner's** written determination of **Final Acceptance**, or within such additional time as may be granted by the **Commissioner** in writing. If the **Contractor** fails to submit all required certificates and documents within the time allowed, no payment of the balance claimed shall be made to the **Contractor** and the **Contractor** shall be deemed to have forfeited its right to

payment of any balance claimed. A verified statement similar to that required in connection with applications for partial payments shall also be submitted to the **Commissioner**.

45.2 Amended Verified Statement of Claims: The **Contractor** shall also submit with the final requisition any amendments to the final verified statement of any pending dispute resolution procedures in accordance with the **PPB** Rules and this **Contract** and any and all alleged claims against the **City**, in any way connected with or arising out of this **Contract** (including those as to which details may have been furnished pursuant to Articles 11, 27, 28, and 30) that have occurred subsequent to **Substantial Completion**, setting forth with respect to each such claim the total amount thereof, the various items of labor and materials included therein, and the alleged value of each such item; and if the alleged claim be one for delay, the alleged cause of each such delay, the period or periods of time, giving the dates when the **Contractor** claims the performance of the **Work** or a particular part thereof was delayed, and an itemized statement and breakdown of the amount claimed for each such delay. With reference to each such claim, the **Commissioner**, the **Comptroller** and, in the event of litigation, the **City** Corporation Counsel shall have the same right to inspect, and to make extracts or copies of, the **Contractor's** books, vouchers, records, etc., as is referred to in Articles 11, 27, 28, and 30. Nothing contained in this Article 45.2, is intended to or shall relieve the **Contractor** from the obligation of complying strictly with Articles 11, 27, 28, and 30. The **Contractor** is warned that unless such claims are completely set forth as herein required, the **Contractor**, upon acceptance of the Final Payment pursuant to Article 46, will have waived any such claims.

45.3 Preparation of Final Voucher: Upon determining the balance due hereunder other than on account of claims, the **Engineer** will prepare and certify, for the Commissioner's approval, a voucher for final payment in that amount less any and all deductions authorized to be made by the **Commissioner** under this **Contract** or by **Law**. In the case of a lump sum **Contract**, the **Commissioner** shall certify the voucher for final payment within thirty (30) **Days** from the date of completion and acceptance of the **Work**, provided all requests for extensions of time have been acted upon.

45.3.1 All prior certificates and vouchers upon which partial payments were made, being merely estimates made to enable the **Contractor** to prosecute the **Work** more advantageously, shall be subject to correction in the final voucher, and the certification of the **Engineer** thereon and the approval of the **Commissioner** thereof, shall be conditions precedent to the right of the **Contractor** to receive any money hereunder. Such final voucher shall be binding and conclusive upon the **Contractor**.

45.3.2 Payment pursuant to such final voucher, less any deductions authorized to be made by the **Commissioner** under this **Contract** or by **Law**, shall constitute the final payment, and shall be made by the **Comptroller** within thirty (30) **Days** after the filing of such voucher in his/her office.

45.4 The **Contractor** acknowledges that nothing contained in this Article 45 is intended to or shall in any way diminish the force and effect of Article 13.

ARTICLE 46. ACCEPTANCE OF FINAL PAYMENT

46.1 The acceptance by the **Contractor**, or by anyone claiming by or through it, of the final payment, whether such payment be made pursuant to any judgment of any court, or otherwise, shall constitute and operate as a release of the **City** from any and all claims of and liability to the **Contractor** for anything heretofore done or furnished for the **Contractor** relating to or arising out of this **Contract** and the **Work** done hereunder, and for any prior act, neglect or default on the part of the **City** or any of its officials, agents or employees, excepting only a claim against the **City** for the amounts deducted or retained in accordance with the terms and provisions of this **Contract** or by **Law**, and excepting any

claims, not otherwise waived, or any pending dispute resolution procedures which are contained in the verified statement filed with the **Contractor's** substantial and final requisitions pursuant to Articles 44 and 45.

46.2 The **Contractor** is warned that the execution by it of a release, in connection with the acceptance of the final payment, containing language purporting to reserve claims other than those herein specifically excepted from the operation of this Article 46, or those for amounts deducted by the **Commissioner** from the final requisition or from the final payment as certified by the **Engineer** and approved by the **Commissioner**, shall not be effective to reserve such claims, anything stated to the **Contractor** orally or in writing by any official, agent or employee of the **City** to the contrary notwithstanding.

46.3 Should the **Contractor** refuse to accept the final payment as tendered by the **Comptroller**, it shall constitute a waiver of any right to interest thereon.

46.4 The **Contractor**, however, shall not be barred by this Article 46 from commencing an action for breach of **Contract** to the extent permitted by **Law** and by the terms of the **Contract** for any claims that are contained in the verified statement filed with the **Contractor's** substantial and final requisitions pursuant to Articles 44 and 45 or that arose after submission of the final payment requisition, provided that a detailed and verified statement of claim is served upon the contracting **Agency** and **Comptroller** not later than forty (40) **Days** after the making of such final payment by electronic funds transfer (EFT) or the mailing of such final payment. The statement shall specify the items upon which the claim will be based and any such claim shall be limited to such items.

ARTICLE 47. APPROVAL BY PUBLIC DESIGN COMMISSION

47.1 All works of art, including paintings, mural decorations, stained glass, statues, bas-reliefs, and other sculptures, monuments, fountains, arches, and other structures of a permanent character intended for ornament or commemoration, and every design of the same to be used in the performance of this **Contract**, and the design of all bridges, approaches, buildings, gates, fences, lamps, or structures to be erected, pursuant to the terms of this **Contract**, shall be submitted to the Art Commission, d/b/a the Public Design Commission of the City of New York, and shall be approved by the Public Design Commission prior to the erection or placing in position of the same. The final payment shall not become due or payable under this **Contract** unless and until the Public Design Commission shall certify that the design for the **Work** herein contracted for has been approved by the said Public Design Commission, and that the same has been executed in substantial accordance with the design so approved, pursuant to the provisions of Chapter 37, Section 854 of the **City Charter**, as amended.

CHAPTER X CONTRACTOR'S DEFAULT

ARTICLE 48. COMMISSIONER'S RIGHT TO DECLARE CONTRACTOR IN DEFAULT

48.1 In addition to those instances specifically referred to in other Articles herein, the **Commissioner** shall have the right to declare the **Contractor** in default of this **Contract** if:

48.1.1 The **Contractor** fails to commence **Work** when notified to do so by the **Commissioner**; or
if

48.1.2 The **Contractor** shall abandon the **Work**; or if

48.1.3 The **Contractor** shall refuse to proceed with the **Work** when and as directed by the **Commissioner**; or if

48.1.4 The **Contractor** shall, without just cause, reduce its working force to a number which, if maintained, would be insufficient, in the opinion of the **Commissioner**, to complete the **Work** in accordance with the progress schedule; or if

48.1.5 The **Contractor** shall fail or refuse to increase sufficiently such working force when ordered to do so by the **Commissioner**; or if

48.1.6 The **Contractor** shall sublet, assign, transfer, convert or otherwise dispose of this **Contract** other than as herein specified; or sell or assign a majority interest in the **Contractor**; or if

48.1.7 The **Contractor** fails to secure and maintain all required insurance; or if

48.1.8 A receiver or receivers are appointed to take charge of the **Contractor's** property or affairs; or if

48.1.9 The **Commissioner** shall be of the opinion that the **Contractor** is or has been unnecessarily or unreasonably or willfully delaying the performance and completion of the **Work**, or the award of necessary subcontracts, or the placing of necessary material and equipment orders; or if

48.1.10 The **Commissioner** shall be of the opinion that the **Contractor** is or has been willfully or in bad faith violating any of the provisions of this **Contract**; or if

48.1.11 The **Commissioner** shall be of the opinion that the **Work** cannot be completed within the time herein provided therefor or within the time to which such completion may have been extended; provided, however, that the impossibility of timely completion is, in the **Commissioner's** opinion, attributable to conditions within the **Contractor's** control; or if

48.1.12 The **Work** is not completed within the time herein provided therefor or within the time to which the **Contractor** may be entitled to have such completion extended; or if

48.1.13 Any statement or representation of the **Contractor** in the **Contract** or in any document submitted by the **Contractor** with respect to the **Work**, the **Project**, or the **Contract** (or for purposes of securing the **Contract**) was untrue or incorrect when made; or if

48.1.14 The **Contractor** or any of its officers, directors, partners, five (5%) percent shareholders, principals, or other persons substantially involved in its activities, commits any of the acts or omissions specified as the grounds for debarment in the **PPB Rules**.

48.2 Before the **Commissioner** shall exercise his/her right to declare the **Contractor** in default, the **Commissioner** shall give the **Contractor** an opportunity to be heard, upon not less than two (2) **Days** notice.

ARTICLE 49. EXERCISE OF THE RIGHT TO DECLARE DEFAULT

49.1 The right to declare the **Contractor** in default for any of the grounds specified or referred to in Article 48 shall be exercised by sending the **Contractor** a notice, signed by the **Commissioner**, setting forth the ground or grounds upon which such default is declared (hereinafter referred to as a "Notice of Default").

49.2 The **Commissioner's** determination that the **Contractor** is in default shall be conclusive, final, and binding on the parties and such a finding shall preclude the **Contractor** from commencing a plenary action for any damages relating to the **Contract**. If the **Contractor** protests the determination of the **Commissioner**, the **Contractor** may commence an action in a court of competent jurisdiction of the State of New York under Article 78 of the New York Civil Practice Law and Rules.

ARTICLE 50. QUITTING THE SITE

50.1 Upon receipt of such notice the **Contractor** shall immediately discontinue all further operations under this **Contract** and shall immediately quit the **Site**, leaving untouched all plant, materials, equipment, tools, and supplies then on the **Site**.

ARTICLE 51. COMPLETION OF THE WORK

51.1 The **Commissioner**, after declaring the **Contractor** in default, may then have the **Work** completed by such means and in such manner, by contract with or without public letting, or otherwise, as he/she may deem advisable, utilizing for such purpose such of the **Contractor's** plant, materials, equipment, tools, and supplies remaining on the **Site**, and also such **Subcontractors**, as he/she may deem advisable.

51.2 After such completion, the **Commissioner** shall make a certificate stating the expense incurred in such completion, which shall include the cost of re-letting and also the total amount of liquidated damages (at the rate provided for in the **Contract**) from the date when the **Work** should have been completed by the **Contractor** in accordance with the terms hereof to the date of actual completion of the **Work**. Such certificate shall be binding and conclusive upon the **Contractor**, its sureties, and any person claiming under the **Contractor**, as to the amount thereof.

51.3 The expense of such completion, including any and all related and incidental costs, as so certified by the **Commissioner**, and any liquidated damages assessed against the **Contractor**, shall be charged against and deducted out of monies which are earned by the **Contractor** prior to the date of default. Should the expense of such completion, as certified by the **Commissioner**, exceed the total sum which would have been payable under the **Contract** if it had been completed by the **Contractor**, any excess shall be paid by the **Contractor**.

ARTICLE 52. PARTIAL DEFAULT

52.1 In case the **Commissioner** shall declare the **Contractor** in default as to a part of the **Work** only, the **Contractor** shall discontinue such part, shall continue performing the remainder of the **Work** in strict conformity with the terms of this **Contract**, and shall in no way hinder or interfere with any **Other**

Contractor(s) or persons whom the **Commissioner** may engage to complete the **Work** as to which the **Contractor** was declared in default.

52.2 The provisions of this Chapter relating to declaring the **Contractor** in default as to the entire **Work** shall be equally applicable to a declaration of partial default, except that the **Commissioner** shall be entitled to utilize for completion of the part of the **Work** as to which the **Contractor** was declared in default only such plant, materials, equipment, tools, and supplies as had been previously used by the **Contractor** on such part.

ARTICLE 53. PERFORMANCE OF UNCOMPLETED WORK

53.1 In completing the whole or any part of the **Work** under the provisions of this Chapter X, the **Commissioner** shall have the power to depart from or change or vary the terms and provisions of this **Contract**, provided, however, that such departure, change or variation is made for the purpose of reducing the time or expense of such completion. Such departure, change or variation, even to the extent of accepting a lesser or different performance, shall not affect the conclusiveness of the **Commissioner's** certificate of the cost of completion referred to in Article 51, nor shall it constitute a defense to an action to recover the amount by which such certificate exceeds the amount which would have been payable to the **Contractor** hereunder but for its default.

ARTICLE 54. OTHER REMEDIES

54.1 In addition to the right to declare the **Contractor** in default pursuant to this Chapter X, the **Commissioner** shall have the absolute right, in his/her sole discretion and without a hearing, to complete or cause to be completed in the same manner as described in Articles 51 and 53, any or all unsatisfactory or uncompleted punch list **Work** that remains after the completion date specified in the **Final Approved Punch List**. A written notice of the exercise of this right shall be sent to the **Contractor** who shall immediately quit the **Site** in accordance with the provisions of Article 50.

54.2 The expense of completion permitted under Article 54.1, including any and all related and incidental costs, as so certified by the **Commissioner**, shall be charged against and deducted out of monies which have been earned by the **Contractor** prior to the date of the exercise of the right set forth in Article 54.1; the balance of such monies, if any, subject to the other provisions of this **Contract**, to be paid to the **Contractor** without interest after such completion. Should the expense of such completion, as certified by the **Commissioner**, exceed the total sum which would have been payable under the **Contract** if it had been completed by the **Contractor**, any excess shall be paid by the **Contractor**.

54.3 The previous provisions of this Chapter X shall be in addition to any and all other remedies available under **Law** or in equity.

54.4 The exercise by the **City** of any remedy set forth herein shall not be deemed a waiver by the **City** of any other legal or equitable remedy contained in this **Contract** or provided under **Law**.

CHAPTER XI
MISCELLANEOUS PROVISIONS

ARTICLE 55. CONTRACTOR'S WARRANTIES

55.1 In consideration of, and to induce, the award of this **Contract** to the **Contractor**, the **Contractor** represents and warrants:

55.1.1 That it is financially solvent, sufficiently experienced and competent to perform the **Work**; and

55.1.2 That the facts stated in its bid and the information given by it pursuant to the Information for Bidders is true and correct in all respects; and

55.1.3 That it has read and complied with all requirements set forth in the **Contract**.

ARTICLE 56. CLAIMS AND ACTIONS THEREON

56.1 Any claim, that is not subject to dispute resolution under the **PPB** Rules or this **Contract**, against the **City** for damages for breach of **Contract** shall not be made or asserted in any action, unless the **Contractor** shall have strictly complied with all requirements relating to the giving of notice and of information with respect to such claims, as herein before provided.

56.2 Nor shall any action be instituted or maintained on any such claims unless such action is commenced within six (6) months after **Substantial Completion**; except that:

56.2.1 Any claims arising out of events occurring after **Substantial Completion** and before **Final Acceptance** of the **Work** shall be asserted within six (6) months of **Final Acceptance** of the **Work**;

56.2.2 Any claims for monies deducted, retained or withheld under the provisions of this **Contract** shall be asserted within six (6) months after the date when such monies otherwise become due and payable hereunder; and

56.2.3 If the **Commissioner** exercises his/her right to terminate the **Contract** pursuant to Article 64, any such action shall be commenced within six (6) months of the date the **Commissioner** exercises said right.

ARTICLE 57. INFRINGEMENT

57.1 The **Contractor** shall be solely responsible for and shall defend, indemnify, and hold the **City** harmless from any and all claims (even if the allegations of the lawsuit are without merit) and judgments for damages and from costs and expenses to which the **City** may be subject to or which it may suffer or incur allegedly arising out of or in connection with any infringement by the **Contractor** of any copyright, trade secrets, trademark or patent rights or any other property or personal right of any third party by the **Contractor** and/or its **Subcontractors** in the performance or completion of the **Work**. Insofar as the facts or **Law** relating to any claim would preclude the **City** from being completely indemnified by the **Contractor**, the **City** shall be partially indemnified by the **Contractor** to the fullest extent permitted by **Law**.

ARTICLE 58. NO CLAIM AGAINST OFFICIALS, AGENTS OR EMPLOYEES

58.1 No claim whatsoever shall be made by the **Contractor** against any official, agent or employee of the **City** for, or on account of, anything done or omitted to be done in connection with this **Contract**.

ARTICLE 59. SERVICE OF NOTICES

59.1 The **Contractor** hereby designates the business address, fax number, and email address specified in its bid, as the place where all notices, directions or other communications to the **Contractor** may be delivered, or to which they may be mailed. Any notice, direction, or communication from either party to the other shall be in writing and shall be deemed to have been given when (i) delivered personally; (ii) sent by certified mail, return receipt requested; (iii) delivered by overnight or same day courier service in a properly addressed envelope with confirmation; or (iv) sent by fax or email and, unless receipt of the fax or e-mail is acknowledged by the recipient by fax or e-mail, deposited in a post office box regularly maintained by the United States Postal Service in a properly addressed, postage pre-paid envelope.

59.2 **Contractor's** notice address, email address, or fax number may be changed at any time by an instrument in writing, executed and acknowledged by the **Contractor**, and delivered to the **Commissioner**.

59.3 Nothing herein contained shall, however, be deemed to preclude or render inoperative the service of any notice, direction or other communication upon the **Contractor** personally, or, if the **Contractor** is a corporation, upon any officer thereof.

ARTICLE 60. UNLAWFUL PROVISIONS DEEMED STRICKEN FROM CONTRACT

60.1 If this **Contract** contains any unlawful provision not an essential part of the **Contract** and which shall not appear to have been a controlling or material inducement to the making thereof, the same shall be deemed of no effect and shall, upon notice by either party, be deemed stricken from the **Contract** without affecting the binding force of the remainder.

ARTICLE 61. ALL LEGAL PROVISIONS DEEMED INCLUDED

61.1 It is the intent and understanding of the parties to this **Contract** that each and every provision of **Law** required to be inserted in this **Contract** shall be and is inserted herein. Furthermore, it is hereby stipulated that every such provision is to be deemed to be inserted herein, and if, through mistake or otherwise, any such provision is not inserted, or is not inserted in correct form, then this **Contract** shall forthwith upon the application of either party be amended by such insertion so as to comply strictly with the **Law** and without prejudice to the rights of either party hereunder.

ARTICLE 62. TAX EXEMPTION

62.1 The **City** is exempt from payment of Federal, State, and local taxes, including sales and compensating use taxes of the State of New York and its cities and counties on all tangible personal property sold to the **City** pursuant to the provisions of this **Contract**. These taxes are not to be included in bids. However, this exemption does not apply to tools, machinery, equipment or other property leased by or to the **Contractor**, **Subcontractor** or **Materialman** or to tangible personal property which, even

though it is consumed, is not incorporated into the completed **Work** (consumable supplies) and tangible personal property that the **Contractor** is required to remove from the **Site** during or upon completion of the **Work**. The **Contractor** and its **Subcontractors** and **Materialmen** shall be responsible for and pay any and all applicable taxes, including sales and compensating use taxes, on such leased tools, machinery, equipment or other property and upon all such consumable supplies and tangible personal property that the **Contractor** is required to remove from the **Site** during or upon completion of the **Work**.

62.2 The **Contractor** agrees to sell and the **City** agrees to purchase all tangible personal property, other than consumable supplies and other tangible personal property that the **Contractor** is required to remove from the **Site** during or upon completion of the **Work**, that is required, necessary or proper for or incidental to the construction of the **Project** covered by this **Contract**. The sum paid under this **Contract** for such tangible personal property shall be in full payment and consideration for the sale of such tangible personal property.

62.2.1 The **Contractor** agrees to construct the **Project** and to perform all **Work**, labor and services rendered, necessary, proper or incidental thereto for the sum shown in the bid for the performance of such **Work**, labor, and services, and the sum so paid pursuant to this **Contract** for such **Work**, labor, and services, shall be in full consideration for the performance by the **Contractor** of all its duties and obligations under this **Contract** in connection with said **Work**, labor, and services.

62.3 20 NYCRR Section 541.3(d) provides that a **Contractor's** purchases of tangible personal property that is either incorporated into real property owned by a governmental entity or purchased for and sold to a governmental entity are exempt from sales and use tax. The **City** shall not pay sales tax for any such tangible personal property that it purchases from the **Contractor** pursuant to the **Contract**. With respect to such tangible personal property, the **Contractor**, at the request of the **City**, shall furnish to the **City** such bills of sale and other instruments as may be required by the **City**, properly executed, acknowledged and delivered assuring to the **City** title to such tangible personal property, free of liens and/or encumbrances, and the **Contractor** shall mark or otherwise identify all such tangible personal property as the property of the **City**.

62.4 Title to all tangible personal property to be sold by the **Contractor** to the **City** pursuant to the provisions of the **Contract** shall immediately vest in and become the sole property of the **City** upon delivery of such tangible personal property to the **Site**. Notwithstanding such transfer of title, the **Contractor** shall have the full and continuing responsibility to install such tangible personal property in accordance with the provisions of this **Contract**, protect it, maintain it in a proper condition and forthwith repair, replace and make good any damage thereto, theft or disappearance thereof, and furnish additional tangible personal property in place of any that may be lost, stolen or rendered unusable, without cost to the **City**, until such time as the **Work** covered by the **Contract** is fully accepted by the **City**. Such transfer of title shall in no way affect any of the **Contractor's** obligations hereunder. In the event that, after title has passed to the **City**, any of the tangible personal property is rejected as being defective or otherwise unsatisfactory, title to all such tangible personal property shall be deemed to have been transferred back to the **Contractor**.

62.5 The purchase by **Subcontractors** or **Materialmen** of tangible personal property to be sold hereunder shall be a purchase or procurement for resale to the **Contractor** (either directly or through other **Subcontractors**) and therefore not subject to the aforesaid sales and compensating use taxes, provided that the subcontracts and purchase agreements provide for the resale of such tangible personal property and that such subcontracts and purchase agreements are in a form similar to this **Contract** with respect to the separation of the sale of consumable supplies and tangible personal property that the **Contractor** is required to remove from the **Site** during or upon completion of the **Work** from the **Work** and labor, services, and any other matters to be provided, and provided further that the subcontracts and

purchase agreements provide separate prices for tangible personal property and all other services and matters. Such separation shall actually be followed in practice, including the separation of payments for tangible personal property from the payments for other **Work** and labor and other things to be provided.

62.6 The **Contractor** and its **Subcontractors** and **Materialmen** shall furnish a **Contractor Exempt Purchase Certificate** to all persons, firms or corporations from which they purchase tangible personal property for the performance of the **Work** covered by this **Contract**.

62.7 In the event any of the provisions of this Article 62 shall be deemed to be in conflict with any other provisions of this **Contract** or create any ambiguity, then the provisions of this Article 62 shall control.

ARTICLE 63. INVESTIGATION(S) CLAUSE

63.1 The parties to this **Contract** agree to cooperate fully and faithfully with any investigation, audit or inquiry conducted by a United States, a State of New York (State) or a **City** governmental agency or authority that is empowered directly or by designation to compel the attendance of witnesses and to examine witnesses under oath, or conducted by the Inspector General of a governmental agency that is a party in interest to the transaction, submitted bid, submitted proposal, contract, lease, permit or license that is the subject of the investigation, audit or inquiry.

63.2 If any person who has been advised that his/her statement, and any information from such statement, will not be used against him/her in any subsequent criminal proceeding refuses to testify before a grand jury or other governmental agency or authority empowered directly or by designation to compel the attendance of witnesses and to examine witnesses under oath concerning the award of or performance under any transaction, agreement, lease, permit, contract, or license entered into with the **City**, the State, or any political subdivision or public authority thereof, or the Port Authority of New York and New Jersey, or any local development corporation within the **City**, or any public benefit corporation organized under the **Laws** of the State of New York, or;

63.3 If any person refuses to testify for a reason other than the assertion of his/her privilege against self incrimination in an investigation, audit or inquiry conducted by a **City** or State governmental agency or authority empowered directly or by designation to compel the attendance of witnesses and to take testimony under oath, or by the Inspector General of the governmental agency that is a party in interest in, and is seeking testimony concerning the award of, or performance under any transaction, agreement, lease, permit, contract, or license entered into with the **City**, the State, or any political subdivision thereof or any local development corporation within the **City**, then;

63.4 The **Commissioner** whose **Agency** is a party in interest to the transaction, submitted bid, submitted proposal, contract, lease, permit, or license shall convene a hearing, upon not less than five (5) **Days**' written notice to the parties involved to determine if any penalties should attach for the failure of a person to testify.

63.5 If any non-governmental party to the hearing requests an adjournment, the **Commissioner** who convened the hearing may, upon granting the adjournment, suspend any contract, lease, permit, or license, pending the final determination pursuant to Article 63.7 without the **City** incurring any penalty or damages for delay or otherwise.

63.6 The penalties which may attach after a final determination by the **Commissioner** may include but shall not exceed:

63.6.1 The disqualification for a period not to exceed five (5) years from the date of an adverse determination for any person, or any entity of which such person was a member at the time the testimony was sought, from submitting bids for, or transacting business with, or entering into or obtaining any contract, lease, permit or license with or from the **City**; and/or

63.6.2 The cancellation or termination of any and all such existing **City** contracts, leases, permits or licenses that the refusal to testify concerns and that have not been assigned as permitted under this **Contract**, nor the proceeds of which pledged, to an unaffiliated and unrelated institutional lender for fair value prior to the issuance of the notice scheduling the hearing, without the **City** incurring any penalty or damages on account of such cancellation or termination; monies lawfully due for goods delivered, work done, rentals, or fees accrued prior to the cancellation or termination shall be paid by the **City**.

63.7 The **Commissioner** shall consider and address in reaching his/her determination and in assessing an appropriate penalty the factors in Articles 63.7.1 and 63.7.2. The **Commissioner** may also consider, if relevant and appropriate, the criteria established in Articles 63.7.3 and 63.7.4, in addition to any other information which may be relevant and appropriate:

63.7.1 The party's good faith endeavors or lack thereof to cooperate fully and faithfully with any governmental investigation or audit, including but not limited to the discipline, discharge, or disassociation of any person failing to testify, the production of accurate and complete books and records, and the forthcoming testimony of all other members, agents, assignees or fiduciaries whose testimony is sought.

63.7.2 The relationship of the person who refused to testify to any entity that is a party to the hearing, including but not limited to, whether the person whose testimony is sought has an ownership interest in the entity and/or the degree of authority and responsibility the person has within the entity.

63.7.3 The nexus of the testimony sought to the subject entity and its contracts, leases, permits or licenses with the **City**.

63.7.4 The effect a penalty may have on an unaffiliated and unrelated party or entity that has a significant interest in an entity subject to penalties under Article 63.6, provided that the party or entity has given actual notice to the **Commissioner** upon the acquisition of the interest, or at the hearing called for in Article 63.4, gives notice and proves that such interest was previously acquired. Under either circumstance the party or entity shall present evidence at the hearing demonstrating the potential adverse impact a penalty will have on such person or entity.

63.8 Definitions:

63.8.1 The term "license" or "permit" as used in this Article 63 shall be defined as a license, permit, franchise or concession not granted as a matter of right.

63.8.2 The term "person" as used in this Article 63 shall be defined as any natural person doing business alone or associated with another person or entity as a partner, director, officer, principal or employee.

63.8.3 The term "entity" as used in this Article 63 shall be defined as any firm, partnership, corporation, association, joint venture, or person that receives monies, benefits, licenses, leases, or permits from or through the **City** or otherwise transacts business with the **City**.

63.8.4 The term "member" as used in this Article 63 shall be defined as any person associated with another person or entity as a partner, director, officer, principal or employee.

63.9 In addition to and notwithstanding any other provision of this **Contract**, the **Commissioner** may in his/her sole discretion terminate this **Contract** upon not less than three (3) **Days'** written notice in the event the **Contractor** fails to promptly report in writing to the **Commissioner** of the Department of Investigations ("DOI") of the **City** any solicitation of money, goods, requests for future employment or other benefit or thing of value, by or on behalf of any employee of the **City** or other person, firm, corporation or entity for any purpose which may be related to the procurement or obtaining of this **Contract** by the **Contractor**, or affecting the performance of this **Contract**.

ARTICLE 64. TERMINATION BY THE CITY

64.1 In addition to termination pursuant to any other article of this **Contract**, the **Commissioner** may, at any time, terminate this **Contract** by written notice to the **Contractor**. In the event of termination, the **Contractor** shall, upon receipt of such notice, unless otherwise directed by the **Commissioner**:

64.1.1 Stop **Work** on the date specified in the notice;

64.1.2 Take such action as may be necessary for the protection and preservation of the **City's** materials and property;

64.1.3 Cancel all cancelable orders for material and equipment;

64.1.4 Assign to the **City** and deliver to the **Site** or another location designated by the **Commissioner**, any non-cancelable orders for material and equipment that is not capable of use except in the performance of this **Contract** and has been specifically fabricated for the sole purpose of this **Contract** and not incorporated in the **Work**;

64.1.5 Take no action which will increase the amounts payable by the **City** under this **Contract**.

64.2 In the event of termination by the **City** pursuant to this Article 64, payment to the **Contractor** shall be in accordance with Articles 64.2.1, 64.2.2 or 64.2.3, to the extent that each respective article applies.

64.2.1 Lump Sum Contracts or Items: On all lump sum **Contracts**, or on lump sum items in a **Contract**, the **City** will pay the **Contractor** the sum of the amounts described in Articles 64.2.1(a) and 64.2.1(b), less all payments previously made pursuant to this **Contract**. On lump sum **Contracts** only, the **City** will also pay the **Contractor** an additional sum as provided in Article 64.2.1(c).

64.2.1(a) For **Work** completed prior to the notice of termination, the **Contractor** shall be paid a pro rata portion of the lump sum bid amount, plus approved change orders, based upon the percent completion of the **Work**, as determined by the **Commissioner**. For the purpose of determining the pro rata portion of the lump sum bid amount to which the **Contractor** is entitled, the bid breakdown submitted in accordance with Article 41 shall be considered, but shall not be dispositive. The **Commissioner's** determination hereunder shall be final, binding, and conclusive.

64.2.1(b) For non-cancelable material and equipment that is not capable of use except in the performance of this **Contract** and has been specifically fabricated for the sole purpose of this **Contract**, but not yet incorporated in the **Work**, the **Contractor** shall be paid the lesser of the following, less salvage value:

64.2.1(b)(i) The Direct Cost, as defined in Article 64.2.4; or

64.2.1(b)(ii) The fair and reasonable value, if less than Direct Cost, of such material and equipment, plus necessary and reasonable delivery costs.

64.2.1(b)(iii) In addition, the **Contractor** shall be paid five (5%) percent of the amount described in Article 64.2.1(b)(i) or Article 64.2.1(b)(ii), whichever applies.

64.2.1(c) Except as otherwise provided in Article 64.2.1(d), on all lump sum **Contracts**, the **Contractor** shall be paid the percentage indicated below applied to the difference between the total lump sum bid amount and the total of all payments made prior to the notice of termination plus all payments allowed pursuant to Articles 64.2.1(a) and 64.2.1(b):

64.2.1(c)(i) Five (5%) percent of the first five million (\$5,000,000) dollars; and

64.2.1(c)(ii) Three (3%) percent of any amount between five million (\$5,000,000) dollars and fifteen million (\$15,000,000) dollars; plus

64.2.1(c)(iii) One (1%) percent of any amount over fifteen million (\$15,000,000) dollars.

64.2.1(d) In the event the **City** terminates a lump sum **Contract** pursuant to this Article 64 within ninety (90) **Days** after registration of the **Contract** with the **Comptroller**, the **Contractor** shall be paid one (1%) percent of the difference between the lump sum bid amount and the total of all payments made pursuant to this Article 64.2.

64.2.2 Unit Price Contracts or Items: On all unit price **Contracts**, or on unit price items in a **Contract**, the **City** will pay the **Contractor** the sum of the amounts described in Articles 64.2.2(a) and 64.2.2(b), less all payments previously made pursuant to this **Contract**:

64.2.2(a) For all completed units, the unit price stated in the **Contract**, and

64.2.2(b) For units that have been ordered but are only partially completed, the **Contractor** will be paid:

64.2.2(b)(i) A pro rata portion of the unit price stated in the **Contract** based upon the percent completion of the unit and

64.2.2(b)(ii) For non-cancelable material and equipment, payment will be made pursuant to Article 64.2.1(b).

64.2.3 Time and Materials Contracts or Items Based on Time and Material Records: On all **Contracts** or items in a **Contract** where payment for the **Work** is based on time and

material records, the **Contractor** shall be paid in accordance with Article 26, less all payments previously made pursuant to this **Contract**.

64.2.4 Direct Costs: Direct Costs as used in this Article 64.2 shall mean:

64.2.4(a) The actual purchase price of material and equipment, plus necessary and reasonable delivery costs,

64.2.4(b) The actual cost of labor involved in construction and installation at the **Site**, and

64.2.4(c) The actual cost of necessary bonds and insurance purchased pursuant to requirements of this **Contract** less any amounts that have been or should be refunded by the **Contractor's** sureties or insurance carriers.

64.2.4(d) Direct Costs shall not include overhead.

64.3 In no event shall any payments under this Article 64 exceed the **Contract** price for such items.

64.4 All payments pursuant to Article 64 shall be in the nature of liquidated damages and shall be accepted by the **Contractor** in full satisfaction of all claims against the **City**.

64.5 The **City** may deduct or set off against any sums due and payable pursuant to this Article 64, any deductions authorized by this **Contract** or by **Law** (including but not limited to liquidated damages) and any claims it may have against the **Contractor**. The **City's** exercise of the right to terminate the **Contract** pursuant to this Article 64 shall not impair or otherwise effect the **City's** right to assert any claims it may have against the **Contractor** in a plenary action.

64.6 Where the **Work** covered by the **Contract** has been substantially completed, as determined in writing by the **Commissioner**, termination of the **Work** shall be handled as an omission of **Work** pursuant to Articles 29 and 33, in which case a change order will be issued to reflect an appropriate reduction in the **Contract** sum, or if the amount is determined after final payment, such amount shall be paid by the **Contractor**.

ARTICLE 65. CHOICE OF LAW, CONSENT TO JURISDICTION AND VENUE

65.1 This **Contract** shall be deemed to be executed in the **City** regardless of the domicile of the **Contractor**, and shall be governed by and construed in accordance with the **Laws** of the State of New York and the **Laws** of the United States, where applicable.

65.2 The parties agree that any and all claims asserted against the **City** arising under this **Contract** or related thereto shall be heard and determined in the courts of the State of New York ("New York State Courts") located in the **City** and County of New York. To effect this **Contract** and intent, the **Contractor** agrees:

65.2.1 If the **City** initiates any action against the **Contractor** in Federal court or in a New York State Court, service of process may be made on the **Contractor** either in person, wherever such **Contractor** may be found, or by registered mail addressed to the **Contractor** at its address as set forth in this **Contract**, or to such other address as the **Contractor** may provide to the **City** in writing; and

65.2.2 With respect to any action between the **City** and the **Contractor** in a New York State Court, the **Contractor** hereby expressly waives and relinquishes any rights it might otherwise have:

65.2.2(a) To move to dismiss on grounds of forum non conveniens;

65.2.2(b) To remove to Federal Court; and

65.2.2(c) To move for a change of venue to a New York State Court outside New York County.

65.2.3 With respect to any action brought by the **City** against the **Contractor** in a Federal Court located in the **City**, the **Contractor** expressly waives and relinquishes any right it might otherwise have to move to transfer the action to a Federal Court outside the **City**.

65.2.4 If the **Contractor** commences any action against the **City** in a court located other than in the **City** and County of New York, upon request of the **City**, the **Contractor** shall either consent to a transfer of the action to a New York State Court of competent jurisdiction located in the **City** and County of New York or, if the Court where the action is initially brought will not or cannot transfer the action, the **Contractor** shall consent to dismiss such action without prejudice and may thereafter reinstate the action in a New York State Court of competent jurisdiction in New York County.

65.3 If any provision(s) of this Article 65 is held unenforceable for any reason, each and all other provision(s) shall nevertheless remain in full force and effect.

ARTICLE 66. PARTICIPATION IN AN INTERNATIONAL BOYCOTT

66.1 The **Contractor** agrees that neither the **Contractor** nor any substantially owned affiliated company is participating or shall participate in an international boycott in violation of the provisions of the Federal Export Administration Act of 1979, as amended, or the regulations of the United States Department of Commerce (Commerce Department) promulgated thereunder.

66.2 Upon the final determination by the Commerce Department or any other agency of the United States as to, or conviction of the **Contractor** or a substantially-owned affiliated company thereof for participation in an international boycott in violation of the provisions of the Export Administration Act of 1979, as amended, or the regulations promulgated thereunder, the **Comptroller** may, at his/her option, render forfeit and void this **Contract**.

66.3 The **Contractor** shall comply in all respects, with the provisions of Section 6-114 of the Administrative Code and the rules and regulations issued by the **Comptroller** thereunder.

ARTICLE 67. LOCALLY BASED ENTERPRISE PROGRAM

67.1 This **Contract** is subject to the requirements of Section 6-108.1 of the Administrative Code and regulations promulgated thereunder. No construction contract shall be awarded unless and until these requirements have been complied with in their entirety; however, compliance with this Article 67 is not required if the Agency sets Subcontractor Participation Goals for Minority- and Women-Owned Business Enterprises (M/WBEs).

67.2 Unless specifically waived by the **Commissioner** with the approval of the Division of Economic and Financial Opportunity of the **City Department of Business Services**, if any portion of the **Contract** is subcontracted, not less than ten (10%) percent of the total dollar amount of the **Contract** shall be awarded to locally based enterprises (LBEs); except that where less than ten (10%) percent of the total dollar amount of the **Contract** is subcontracted, such lesser percentage shall be so awarded.

67.3 The **Contractor** shall not require performance and payment bonds from LBE **Subcontractors**.

67.4 If the **Contractor** has indicated prior to award that no **Work** will be subcontracted, no **Work** shall be subcontracted without the prior approval of the **Commissioner**, which shall be granted only if the **Contractor** makes a good faith effort beginning at least six (6) weeks before the **Work** is to be performed to obtain LBE **Subcontractors** to perform the **Work**.

67.5 If the **Contractor** has not identified sufficient LBE **Subcontractors** prior to award, it shall sign a letter of compliance stating that it complies with Section 6-108.1 of the Administrative Code, recognizes that achieving the LBE requirement is a condition of its **Contract**, and shall submit documentation demonstrating its good faith efforts to obtain LBEs. After award, the **Contractor** shall begin to solicit LBE's to perform subcontracted **Work** at least six (6) weeks before the date such **Work** is to be performed and shall demonstrate that a good faith effort has been made to obtain LBEs on each subcontract until it meets the required percentage.

67.6 Failure of the **Contractor** to comply with the requirements of Section 6-108.1 of the Administrative Code and the regulations promulgated thereunder shall constitute a material breach of this **Contract**. Remedy for such breach may include the imposition of any or all of the following sanctions:

67.6.1 Reducing the **Contractor's** compensation by an amount equal to the dollar value of the percentage of the LBE subcontracting requirement not complied with;

67.6.2 Declaring the **Contractor** in default;

67.6.3 If the **Contractor** is an LBE, de-certifying and declaring the **Contractor** ineligible to participate in the LBE program for a period of up to three (3) years.

ARTICLE 68. ANTITRUST

68.1 The **Contractor** hereby assigns, sells, and transfers to the **City** all right, title, and interest in and to any claims and causes of action arising under the antitrust **Laws** of New York State or of the United States relating to the particular goods or services purchased or procured by the **City** under this **Contract**.

ARTICLE 69. MacBRIDE PRINCIPLES PROVISIONS

69.1 Notice To All Prospective **Contractors**:

69.1.1 Local Law No. 34 of 1991 became effective on September 10, 1991 and added Section 6-115.1 of the Administrative Code. The local **Law** provides for certain restrictions on **City Contracts** to express the opposition of the people of the **City** to employment discrimination practices in Northern Ireland to promote freedom of work-place opportunity.

69.1.2 Pursuant to Section 6-115.1, prospective **Contractors** for **Contracts** to provide goods or services involving an expenditure of an amount greater than ten thousand

(\$10,000.) dollars, or for construction involving an amount greater than fifteen thousand (\$15,000.) dollars, are asked to sign a rider in which they covenant and represent, as a material condition of their **Contract**, that any business operations in Northern Ireland conducted by the **Contractor** and any individual or legal entity in which the **Contractor** holds a ten (10%) percent or greater ownership interest in the **Contractor** will be conducted in accordance with the MacBride Principles of nondiscrimination in employment.

69.1.3 Prospective **Contractors** are not required to agree to these conditions. However, in the case of **Contracts** let by competitive sealed bidding, whenever the lowest responsible bidder has not agreed to stipulate to the conditions set forth in this notice and another bidder who has agreed to stipulate to such conditions has submitted a bid within five (5%) percent of the lowest responsible bid for a **Contract** to supply goods, services or contraction of comparable quality, the **Agency** shall refer such bids to the Mayor, the Speaker or other officials, as appropriate, who may determine, in accordance with applicable **Law**, that it is in the best interest of the **City** that the **Contract** be awarded to other than the lowest responsible pursuant to Section 313(b)(2) of the **City Charter**.

69.1.4 In the case of **Contracts** let by other than competitive sealed bidding, if a prospective **Contractor** does not agree to these conditions, no **Agency**, elected official or the **City Council** shall award the **Contract** to that bidder unless the **Agency** seeking to use the goods, services or construction certifies in writing that the **Contract** is necessary for the **Agency** to perform its functions and there is no other responsible **Contractor** who will supply goods, services or construction of comparable quality at a comparable price.

69.2 In accordance with Section 6-115.1 of the Administrative Code, the **Contractor** stipulates that such **Contractor** and any individual or legal entity in which the **Contractor** holds a ten (10%) percent or greater ownership interest in the **Contractor** either:

69.2.1 Have no business operations in Northern Ireland, or

69.2.2 Shall take lawful steps in good faith to conduct any business operations they have in Northern Ireland in accordance with the MacBride Principles, and shall permit independent monitoring of their compliance with such principles.

69.3 For purposes of this Article, the following terms shall have the following meanings:

69.3.1 "MacBride Principles" shall mean those principles relating to nondiscrimination in employment and freedom of work-place opportunity which require employers doing business in Northern Ireland to:

69.3.1(a) increase the representation of individuals from under-represented religious groups in the workforce, including managerial, supervisory, administrative, clerical and technical jobs;

69.3.1(b) take steps to promote adequate security for the protection of employees from under-represented religious groups both at the work-place and while traveling to and from **Work**;

69.3.1(c) ban provocative religious or political emblems from the workplace;

69.3.1(d) publicly advertise all job openings and make special recruitment efforts to attract applicants from under-represented religious groups;

69.3.1(e) establish layoff, recall, and termination procedures which do not in practice favor a particular religious group;

69.3.1(f) abolish all job reservations, apprenticeship restrictions and different employment criteria which discriminate on the basis of religion;

69.3.1(g) develop training programs that will prepare substantial numbers of current employees from under-represented religious groups for skilled jobs, including the expansion of existing programs and the creation of new programs to train, upgrade, and improve the skills of workers from under-represented religious groups;

69.3.1(h) establish procedures to assess, identify, and actively recruit employees from under-represented religious groups with potential for further advancement; and

69.3.1(i) appoint a senior management staff member to oversee affirmative action efforts and develop a timetable to ensure their full implementation.

69.4 The **Contractor** agrees that the covenants and representations in Article 69.2 are material conditions to this **Contract**. In the event the **Agency** receives information that the **Contractor** who made the stipulation required by this Article 69 is in violation thereof, the **Agency** shall review such information and give the **Contractor** an opportunity to respond. If the **Agency** finds that a violation has occurred, the **Agency** shall have the right to declare the **Contractor** in default and/or terminate this **Contract** for cause and procure supplies, services or **Work** from another source in the manner the **Agency** deems proper. In the event of such termination, the **Contractor** shall pay to the **Agency**, or the **Agency** in its sole discretion may withhold from any amounts otherwise payable to the **Contractor**, the difference between the **Contract** price for the uncompleted portion of this **Contract** and the cost to the **Agency** of completing performance of this **Contract** either itself or by engaging another **Contractor** or **Contractors**. In the case of a requirement **Contract**, the **Contractor** shall be liable for such difference in price for the entire amount of supplies required by the **Agency** for the uncompleted term of **Contractor's Contract**. In the case of a construction **Contract**, the **Agency** shall also have the right to hold the **Contractor** in partial or total default in accordance with the default provisions of this **Contract**, and/or may seek debarment or suspension of the **Contractor**. The rights and remedies of the **Agency** hereunder shall be in addition to, and not in lieu of, any rights and remedies the **Agency** has pursuant to this **Contract** or by operation of **Law**.

ARTICLE 70. ELECTRONIC FILING/NYC DEVELOPMENT HUB

70.1 The **Contractor** shall electronically file all alteration type-2 and alteration type-3 applications via the New York City Development Hub Web site, except applications for the following types of minor alterations: enlargements, curb cuts, legalizations, fire alarms, builders pavement plans, and jobs filed on Landmark Preservation Commission calendared properties. All such filings must be professionally certified. Information about electronic filing via the New York City Development Hub is available on the City Department of Buildings Web site at www.nyc.gov/buildings.

ARTICLE 71. PROHIBITION OF TROPICAL HARDWOODS

71.1 Tropical hardwoods, as defined in Section 165 of the New York State Finance Law (Finance Law), shall not be utilized in the performance of this **Contract** except as expressly permitted by Section 165 of the Finance Law.

ARTICLE 72. CONFLICTS OF INTEREST

72.1 Section 2604 of the City Charter and other related provisions of the City Charter, the Administrative Code, and the Penal Law are applicable under the terms of this Contract in relation to conflicts of interest and shall be extended to **Subcontractors** authorized to perform **Work**, labor and services pursuant to this **Contract** and further, it shall be the duty and responsibility of the **Contractor** to so inform its respective **Subcontractors**. Notice is hereby given that, under certain circumstances, penalties may be invoked against the donor as well as the recipient of any form of valuable gift.

ARTICLE 73. MERGER CLAUSE

73.1 The written **Contract** herein, contains all the terms and conditions agreed upon by the parties hereto, and no other agreement, oral or otherwise, regarding the subject matter of this **Contract** shall be deemed to exist or to bind any of the parties hereto, or to vary any of the terms contained herein.

ARTICLE 74. STATEMENT OF WORK

74.1 The **Contractor** shall furnish all labor and materials and perform all **Work** in strict accordance with the **Specifications** and **Addenda** thereto, numbered ONE THRY NINE.

ARTICLE 75. COMPENSATION TO BE PAID TO CONTRACTOR

75.1 The City will pay and the **Contractor** will accept in full consideration for the performance of the **Contract**, subject to additions and deductions as provided herein, the total sum of: SEE BELOW Dollars, (~~\$44,443,446.40~~) this said sum being the amount at which the **Contract** was awarded to the **Contractor** at a public letting thereof, based upon the **Contractor's** bid for the **Contract**. forty four million, four hundred forty three thousand, four hundred forty six dollars
44,443,446.40

ARTICLE 76. ELECTRONIC FUNDS TRANSFER

76.1 In accordance with Section 6-107.1 of the Administrative Code, the **Contractor** agrees to accept payments under this **Contract** from the **City** by electronic funds transfer (EFT). An EFT is any transfer of funds, other than a transaction originated by check, draft or similar paper instrument, which is initiated through an electronic terminal, telephonic instrument or computer or magnetic tape so as to order, instruct or authorize a financial institution to debit or credit an account. Prior to the first payment made under this **Contract**, the **Contractor** shall designate one financial institution or other authorized payment agent and shall complete the attached "EFT Vendor Payment Enrollment Form" in order to provide the Commissioner of the **City** Department of Finance with information necessary for the **Contractor** to receive electronic funds transfer payments through a designated financial institution or authorized payment agent. The crediting of the amount of a payment to the appropriate account on the books of a financial institution or other authorized payment agent designated by the **Contractor** shall constitute full satisfaction by the **City** for the amount of the payment under this **Contract**. The account information supplied by the **Contractor** to facilitate the electronic funds transfer shall remain confidential to the fullest extent provided by **Law**.

76.2 The **Commissioner** may waive the application of the requirements of this Article 76 to payments on contracts entered into pursuant to Section 315 of the **City** Charter. In addition, the Commissioner of the Department of Finance and the Comptroller may jointly issue standards pursuant to

which the Agency may waive the requirements of this Article 76 for payment in the following circumstances: (i) for individuals or classes of individuals for whom compliance imposes a hardship; (ii) for classifications or types of checks; or (iii) in other circumstances as may be necessary in the interest of the City.

ARTICLE 77. RECORDS RETENTION

77.1 The Contractor agrees to retain all books, records, and other documents relevant to this Contract for six years after the final payment or termination of this Contract, whichever is later. City, state, and federal auditors and any other persons duly authorized by the City shall have full access to and the right to examine any such books, records, and other documents during the retention period.

ARTICLE 78. PARTICIPATION BY MINORITY-OWNED AND WOMEN-OWNED BUSINESS ENTERPRISES IN CITY PROCUREMENT

NOTICE TO ALL PROSPECTIVE CONTRACTORS

ARTICLE I. M/WBE PROGRAM

Local Law No. 129 of 2005 added and Local Law 1 of 2013 amended Section 6-129 of the Administrative Code of the City of New York (hereinafter "Section 6-129"). Section 6-129 establishes the program for participation in City procurement ("M/WBE Program") by minority-owned business enterprises ("MBEs") and women-owned business enterprises ("WBEs"), certified in accordance with Section 1304 of the New York City Charter. As stated in Section 6-129, the intent of the program is to address the impact of discrimination on the City's procurement process, and to promote the public interest in avoiding fraud and favoritism in the procurement process, increasing competition for City business, and lowering contract costs. The contract provisions contained herein are pursuant to Section 6-129, and the rules of the Department of Small Business Services ("DSBS") promulgated thereunder.

If this Contract is subject to the M/WBE Program established by Section 6-129, the specific requirements of MBE and/or WBE participation for this Contract are set forth in Schedule B of the Contract (entitled the "M/WBE Utilization Plan"), and are detailed below. The Contractor must comply with all applicable MBE and WBE requirements for this Contract.

All provisions of Section 6-129 are hereby incorporated in the Contract by reference and all terms used herein that are not defined herein shall have the meanings given such terms in Section 6-129. Article I, Part A, below, sets forth provisions related to the participation goals for construction, standard and professional services contracts. Article I, Part B, below, sets forth miscellaneous provisions related to the M/WBE Program.

PART A

PARTICIPATION GOALS FOR CONSTRUCTION, STANDARD AND PROFESSIONAL SERVICES CONTRACTS OR TASK ORDERS

1. The MBE and/or WBE Participation Goals established for this Contract or Task Orders issued pursuant to this Contract, ("Participation Goals"), as applicable, are set forth on Schedule B, Part I to this Contract (see Page 1, line 1 Total Participation Goals) or will be set forth on Schedule B, Part I to Task Orders issued pursuant to this Contract, as applicable.

The **Participation Goals** represent a percentage of the total dollar value of the Contract or Task Order, as applicable, that may be achieved by awarding subcontracts to firms certified with New York City Department of Small Business Services as MBEs and/or WBEs, and/or by crediting the participation of prime contractors and/or qualified joint ventures as provided in Section 3 below, unless the goals have been waived or modified by Agency in accordance with Section 6-129 and Part A, Sections 10 and 11 below, respectively.

2. If **Participation Goals** have been established for this Contract or Task Orders issued pursuant to this Contract, Contractor agrees or shall agree as a material term of the Contract that Contractor shall be subject to the **Participation Goals**, unless the goals are waived or modified by Agency in accordance with Section 6-129 and Part A, Sections 10 and 11 below, respectively.

3. If **Participation Goals** have been established for this Contract or Task Order issued pursuant to this Contract, a Contractor that is an MBE and/or WBE shall be permitted to count its own participation toward fulfillment of the relevant **Participation Goal**, provided that in accordance with Section 6-129 the value of Contractor's participation shall be determined by subtracting from the total value of the Contract or Task Order, as applicable, any amounts that the Contractor pays to direct subcontractors (as defined in Section 6-129(c)(13)), and provided further that a Contractor that is certified as both an MBE and a WBE may count its own participation either toward the goal for MBEs or the goal for WBEs, but not both.

A Contractor that is a qualified joint venture (as defined in Section 6-129(c)(30)) shall be permitted to count a percentage of its own participation toward fulfillment of the relevant **Participation Goal**. In accordance with Section 6-129, the value of Contractor's participation shall be determined by subtracting from the total value of the Contract or Task Order, as applicable, any amounts that Contractor pays to direct subcontractors, and then multiplying the remainder by the percentage to be applied to total profit to determine the amount to which an MBE or WBE is entitled pursuant to the joint venture agreement, provided that where a participant in a joint venture is certified as both an MBE and a WBE, such amount shall be counted either toward the goal for MBEs or the goal for WBEs, but not both.

4. A. If **Participation Goals** have been established for this Contract, a prospective contractor shall be required to submit with its bid or proposal, as applicable, a completed Schedule B, M/WBE Utilization Plan, Part II (see Pages 2-4) indicating: (a) whether the contractor is an MBE or WBE, or qualified joint venture; (b) the percentage of work it intends to award to direct subcontractors; and (c) in cases where the contractor intends to award direct subcontracts, a description of the type and dollar value of work designated for participation by MBEs and/or WBEs, and the time frames in which such work is scheduled to begin and end. In the event that this M/WBE Utilization Plan indicates that the bidder or proposer, as applicable, does not intend to meet the **Participation Goals**, the bid or proposal, as applicable, shall be deemed non-responsive, unless Agency has granted the bidder or proposer, as applicable, a pre-award waiver of the Participation Goals in accordance with Section 6-129 and Part A, Section 10 below.

B. (i) If this Contract is for a master services agreement or other requirements type contract that will result in the issuance of Task Orders that will be individually registered ("Master Services Agreement") and is subject to M/WBE **Participation Goals**, a prospective contractor shall be required to submit with its bid or proposal, as applicable, a completed Schedule B, M/WBE Participation Requirements for Master Services Agreements That Will Require Individually Registered Task Orders, Part II (page 2) indicating the prospective contractor's certification and required affirmations to make all reasonable good faith efforts to meet participation goals established on each individual Task Order issued pursuant to this Contract, or if a partial waiver is obtained or such goals are modified by the Agency, to meet the modified **Participation Goals** by soliciting and obtaining the participation of certified MBE and/or WBE firms. In the event that the Schedule B indicates that the bidder or proposer, as applicable, does not intend to meet the **Participation Goals** that may be established on Task Orders issued pursuant to this Contract, the bid or proposal, as applicable, shall be deemed nonresponsive.

(ii) **Participation Goals** on a Master Services Agreement will be established for individual Task Orders issued after the Master Services Agreement is awarded. If **Participation Goals** have been established on a Task Order, a contractor shall be required to submit a Schedule B – M/WBE Utilization Plan For Independently Registered Task Orders That Are Issued Pursuant to Master Services Agreements, Part II (see Pages 2-4) indicating: (a) whether the contractor is an MBE or WBE, or qualified joint venture; (b) the percentage of work it intends to award to direct subcontractors; and (c) in cases where the contractor intends to award direct subcontracts, a description of the type and dollar value of work designated for participation by MBEs and/or WBEs, and the time frames in which such work is scheduled to begin and end. The contractor must engage in good faith efforts to meet the **Participation Goals** as established for the Task Order unless Agency has granted the contractor a pre-award waiver of the Participation Goals in accordance with Section 6-129 and Part A, Section 10 below.

C. **THE BIDDER/PROPOSER MUST COMPLETE THE SCHEDULE B INCLUDED HEREIN (SCHEDULE B, PART II). A SCHEDULE B SUBMITTED BY THE BIDDER/PROPOSER WHICH DOES NOT INCLUDE THE VENDOR CERTIFICATION AND REQUIRED AFFIRMATIONS (SEE SECTION V OF PART II) WILL BE DEEMED TO BE NON-RESPONSIVE, UNLESS A FULL WAIVER OF THE PARTICIPATION GOALS IS GRANTED (SCHEDULE B, PART III). IN THE EVENT THAT THE CITY DETERMINES THAT THE BIDDER/PROPOSER HAS SUBMITTED A SCHEDULE B WHERE THE VENDOR CERTIFICATION AND REQUIRED AFFIRMATIONS ARE COMPLETED BUT OTHER ASPECTS OF THE SCHEDULE B ARE NOT COMPLETE, OR CONTAIN A COPY OR COMPUTATION ERROR THAT IS AT ODDS WITH THE VENDOR CERTIFICATION AND AFFIRMATIONS, THE BIDDER/PROPOSER WILL BE NOTIFIED BY THE AGENCY AND WILL BE GIVEN FOUR (4) CALENDAR DAYS FROM RECEIPT OF NOTIFICATION TO CURE THE SPECIFIED DEFICIENCIES AND RETURN A COMPLETED SCHEDULE B TO THE AGENCY. FAILURE TO DO SO WILL RESULT IN A DETERMINATION THAT THE BID/PROPOSAL IS NON-RESPONSIVE. RECEIPT OF NOTIFICATION IS DEFINED AS THE DATE NOTICE IS E-MAILED OR FAXED (IF THE BIDDER/PROPOSER HAS PROVIDED AN E-MAIL ADDRESS OR FAX NUMBER), OR NO LATER THAN FIVE (5) CALENDAR DAYS FROM THE DATE OF MAILING OR UPON DELIVERY, IF DELIVERED.**

5. Where an M/WBE Utilization Plan has been submitted, the Contractor shall, within 30 days of issuance by Agency of a notice to proceed, submit a list of proposed persons or entities to which it intends to award subcontracts within the subsequent 12 months. In the case of multiyear contracts, such list shall also be submitted every year thereafter. The Agency may also require the Contractor to report periodically about the contracts awarded by its direct subcontractors to indirect subcontractors (as defined in Section 6-129(c)(22)). **PLEASE NOTE: If this Contract is a public works project subject to GML §101(5) (i.e., a contract valued at or below \$3M for projects in New York City) or if the Contract is subject to a project labor agreement in accordance with Labor Law §222, and the bidder is required to identify at the time of bid submission its intended subcontractors for the Wicks trades (plumbing and gas fitting; steam heating, hot water heating, ventilating and air conditioning (HVAC); and electric wiring), the Contractor must identify all those to which it intends to award construction subcontracts for any portion of the Wicks trade work at the time of bid submission, regardless of what point in the life of the contract such subcontracts will occur. In identifying intended subcontractors in the bid submission, bidders may satisfy any Participation Goals established for this Contract by proposing one or more subcontractors that are MBEs and/or WBEs for any portion of the Wicks trade work. In the event that the Contractor's selection of a subcontractor is disapproved, the Contractor shall have a reasonable time to propose alternate subcontractors.**

6. MBE and WBE firms must be certified by DSBS in order for the Contractor to credit such firms' participation toward the attainment of the **Participation Goals**. Such certification must occur prior to the

firms' commencement of work. A list of MBE and WBE firms may be obtained from the DSBS website at www.nyc.gov/buycertified, by emailing DSBS at buyer@sbs.nyc.gov, by calling (212) 513-6356, or by visiting or writing DSBS at 110 William St., New York, New York, 10038, 7th floor. Eligible firms that have not yet been certified may contact DSBS in order to seek certification by visiting www.nyc.gov/getcertified, emailing MWBE@sbs.nyc.gov, or calling the DSBS certification helpline at (212) 513-6311. A firm that is certified as both an MBE and a WBE may be counted either toward the goal for MBEs or the goal for WBEs, but not both. No credit shall be given for participation by a graduate MBE or graduate WBE, as defined in Section 6-129(c)(20).

7. Where an **M/WBE** Utilization Plan has been submitted, the Contractor shall, with each voucher for payment, and/or periodically as Agency may require, submit statements, certified under penalty of perjury, which shall include, but not be limited to, the total amount the Contractor paid to its direct subcontractors, and, where applicable pursuant to Section 6-129(j), the total amount direct subcontractors paid to indirect subcontractors; the names, addresses and contact numbers of each MBE or WBE hired as a subcontractor by the Contractor, and, where applicable, hired by any of the Contractor's direct subcontractors; and the dates and amounts paid to each MBE or WBE. The Contractor shall also submit, along with its voucher for final payment: the total amount it paid to subcontractors, and, where applicable pursuant to Section 6-129(j), the total amount its direct subcontractors paid directly to their indirect subcontractors; and a final list, certified under penalty of perjury, which shall include the name, address and contact information of each subcontractor that is an MBE or WBE, the work performed by, and the dates and amounts paid to each.

8. If payments made to, or work performed by, MBEs or WBEs are less than the amount specified in the Contractor's **M/WBE** Utilization Plan, Agency shall take appropriate action, in accordance with Section 6-129 and Article II below, unless the Contractor has obtained a modification of its **M/WBE** Utilization Plan in accordance with Section 6-129 and Part A, Section 11 below.

9. Where an **M/WBE** Utilization Plan has been submitted, and the Contractor requests a change order the value of which exceeds the greater of 10 percent of the Contract or Task Order, as applicable, or \$500,000, Agency shall review the scope of work for the Contract or Task Order, as applicable, and the scale and types of work involved in the change order, and determine whether the **Participation Goals** should be modified.

10. Pre-award waiver of the **Participation Goals**. (a) A bidder or proposer, or contractor with respect to a Task Order, may seek a pre-award full or partial waiver of the **Participation Goals** in accordance with Section 6-129, which requests that Agency change one or more **Participation Goals** on the grounds that the **Participation Goals** are unreasonable in light of the availability of certified firms to perform the services required, or by demonstrating that it has legitimate business reasons for proposing a lower level of subcontracting in its **M/WBE** Utilization Plan.

(b) To apply for a full or partial waiver of the **Participation Goals**, a bidder, proposer, or contractor, as applicable, must complete Part III (Page 5) of Schedule B and submit such request no later than seven (7) calendar days prior to the date and time the bids, proposals, or Task Orders are due, in writing to the Agency by email at poped@ddc.nyc.gov or via facsimile at (718) 391-1886. Bidders, proposers, or contractors, as applicable, who have submitted requests will receive an Agency response by no later than two (2) calendar days prior to the due date for bids, proposals, or Task Orders; provided, however, that if that date would fall on a weekend or holiday, an Agency response will be provided by close-of-business on the business day before such weekend or holiday date.

(c) If the Agency determines that the **Participation Goals** are unreasonable in light of the availability of certified firms to perform the services required, it shall revise the solicitation and extend the deadline for bids and proposals, or revise the Task Order, as applicable.

(d) Agency may grant a full or partial waiver of the **Participation Goals** to a bidder, proposer or contractor, as applicable, who demonstrates—before submission of the bid, proposal or Task Order, as applicable—that it has legitimate business reasons for proposing the level of subcontracting in its **M/WBE Utilization Plan**. In making its determination, Agency shall consider factors that shall include, but not be limited to, whether the bidder, proposer or contractor, as applicable, has the capacity and the bona fide intention to perform the Contract without any subcontracting, or to perform the Contract without awarding the amount of subcontracts represented by the **Participation Goals**. In making such determination, Agency may consider whether the **M/WBE Utilization Plan** is consistent with past subcontracting practices of the bidder, proposer or contractor, as applicable, whether the bidder, proposer or contractor, as applicable, has made efforts to form a joint venture with a certified firm, and whether the bidder, proposer, or contractor, as applicable, has made good faith efforts to identify other portions of the Contract that it intends to subcontract.

11. **Modification of M/WBE Utilization Plan.** (a) A Contractor may request a modification of its **M/WBE Utilization Plan** after award of this Contract. **PLEASE NOTE: If this Contract is a public works project subject to GML §101(5) (i.e., a contract valued at or below \$3M for projects in New York City) or if the Contract is subject to a project labor agreement in accordance with Labor Law §222, and the bidder is required to identify at the time of bid submission its intended subcontractors for the Wicks trades (plumbing and gas fitting; steam heating, hot water heating, ventilating and air conditioning (HVAC); and electric wiring), the Contractor may request a Modification of its M/WBE Utilization Plan as part of its bid submission.** The Agency may grant a request for Modification of a Contractor's **M/WBE Utilization Plan** if it determines that the Contractor has established, with appropriate documentary and other evidence, that it made reasonable, good faith efforts to meet the **Participation Goals**. In making such determination, Agency shall consider evidence of the following efforts, as applicable, along with any other relevant factors:

- (i) The Contractor advertised opportunities to participate in the Contract, where appropriate, in general circulation media, trade and professional association publications and small business media, and publications of minority and women's business organizations;
- (ii) The Contractor provided notice of specific opportunities to participate in the Contract, in a timely manner, to minority and women's business organizations;
- (iii) The Contractor sent written notices, by certified mail or facsimile, in a timely manner, to advise MBEs or WBEs that their interest in the Contract was solicited;
- (iv) The Contractor made efforts to identify portions of the work that could be substituted for portions originally designated for participation by MBEs and/or WBEs in the **M/WBE Utilization Plan**, and for which the Contractor claims an inability to retain MBEs or WBEs;
- (v) The Contractor held meetings with MBEs and/or WBEs prior to the date their bids or proposals were due, for the purpose of explaining in detail the scope and requirements of the work for which their bids or proposals were solicited;
- (vi) The Contractor made efforts to negotiate with MBEs and/or WBEs as relevant to perform specific subcontracts, or act as suppliers or service providers;
- (vii) Timely written requests for assistance made by the Contractor to Agency's **M/WBE liaison officer** and to DSBS;
- (viii) Description of how recommendations made by DSBS and Agency were acted upon and an explanation of why action upon such recommendations did not lead to the desired level of participation of MBEs and/or WBEs.

Agency's **M/WBE officer** shall provide written notice to the Contractor of the determination.

(b) The Agency may modify the **Participation Goals** when the scope of the work has been changed by the Agency in a manner that affects the scale and types of work that the Contractor indicated in its **M/WBE Utilization Plan** would be awarded to subcontractors.

12. If this Contract is for an indefinite quantity of construction, standard or professional services or is a requirements type contract and the Contractor has submitted an **M/WBE Utilization Plan** and has committed to subcontract work to MBEs and/or WBEs in order to meet the **Participation Goals**, the Contractor will not be deemed in violation of the M/WBE Program requirements for this Contract with regard to any work which was intended to be subcontracted to an MBE and/or WBE to the extent that the Agency has determined that such work is not needed.

13. If **Participation Goals** have been established for this Contract or a Task Order issued pursuant to this Contract, at least once annually during the term of the Contract or Task Order, as applicable, Agency shall review the Contractor's progress toward attainment of its M/WBE Utilization Plan, including but not limited to, by reviewing the percentage of work the Contractor has actually awarded to MBE and/or WBE subcontractors and the payments the Contractor made to such subcontractors.

14. If **Participation Goals** have been established for this Contract or a Task Order issued pursuant to this Contract, Agency shall evaluate and assess the Contractor's performance in meeting those goals, and such evaluation and assessment shall become part of the Contractor's overall contract performance evaluation.

PART B: MISCELLANEOUS

1. The Contractor shall take notice that, if this solicitation requires the establishment of an **M/WBE Utilization Plan**, the resulting contract may be audited by DSBS to determine compliance with Section 6-129. See §6-129(e)(10). Furthermore, such resulting contract may also be examined by the City's Comptroller to assess compliance with the **M/WBE Utilization Plan**.

2. Pursuant to DSBS rules, construction contracts that include a requirement for an **M/WBE Utilization Plan** shall not be subject to the law governing Locally Based Enterprises set forth in Section 6-108.1 of the Administrative Code of the City of New York.

3. DSBS is available to assist contractors and potential contractors in determining the availability of MBEs and/or WBEs to participate as subcontractors, and in identifying opportunities that are appropriate for participation by MBEs and/or WBEs in contracts.

4. Prospective contractors are encouraged to enter into qualified joint venture agreements with MBEs and/or WBEs as defined by Section 6-129(c)(30).

5. By submitting a bid or proposal the Contractor hereby acknowledges its understanding of the M/WBE Program requirements set forth herein and the pertinent provisions of Section 6-129, and any rules promulgated thereunder, and if awarded this Contract, the Contractor hereby agrees to comply with the M/WBE Program requirements of this Contract and pertinent provisions of Section 6-129, and any rules promulgated thereunder, all of which shall be deemed to be material terms of this Contract. The Contractor hereby agrees to make all reasonable, good faith efforts to solicit and obtain the participation of MBEs and/or WBEs to meet the required **Participation Goals**.

ARTICLE II. ENFORCEMENT

1. If Agency determines that a bidder or proposer, as applicable, has, in relation to this procurement, violated Section 6-129 or the DSBS rules promulgated pursuant to Section 6-129, Agency may disqualify such bidder or proposer, as applicable, from competing for this Contract and the Agency may revoke such bidder's or proposer's prequalification status, if applicable.

2. Whenever Agency believes that the Contractor or a subcontractor is not in compliance with Section 6-129 or the DSBS rules promulgated pursuant to Section 6-129, or any provision of this Contract that implements Section 6-129, including, but not limited to any **M/WBE** Utilization Plan, Agency shall send a written notice to the Contractor describing the alleged noncompliance and offering the Contractor an opportunity to be heard. Agency shall then conduct an investigation to determine whether such Contractor or subcontractor is in compliance.

3. In the event that the Contractor has been found to have violated Section 6-129, the DSBS rules promulgated pursuant to Section 6-129, or any provision of this Contract that implements Section 6-129, including, but not limited to, any **M/WBE** Utilization Plan, Agency may determine that one of the following actions should be taken:

- (a) entering into an agreement with the Contractor allowing the Contractor to cure the violation;
- (b) revoking the Contractor's pre-qualification to bid or make proposals for future contracts;
- (c) making a finding that the Contractor is in default of the Contract;
- (d) terminating the Contract;
- (e) declaring the Contractor to be in breach of Contract;
- (f) withholding payment or reimbursement;
- (g) determining not to renew the Contract;
- (h) assessing actual and consequential damages;
- (i) assessing liquidated damages or reducing fees, provided that liquidated damages may be based on amounts representing costs of delays in carrying out the purposes of the **M/WBE** Program, or in meeting the purposes of the Contract, the costs of meeting utilization goals through additional procurements, the administrative costs of investigation and enforcement, or other factors set forth in the Contract;
- (j) exercising rights under the Contract to procure goods, services or construction from another contractor and charge the cost of such contract to the Contractor that has been found to be in noncompliance; or
- (k) taking any other appropriate remedy.

4. If an **M/WBE** Utilization Plan has been submitted, and pursuant to this Article II, Section 3, the Contractor has been found to have failed to fulfill its **Participation Goals** contained in its **M/WBE** Utilization Plan or the **Participation Goals** as modified by Agency pursuant to Article I, Part A, Section 11, Agency may assess liquidated damages in the amount of ten percent (10%) of the difference between the dollar amount of work required to be awarded to MBE and/or WBE firms to meet the **Participation Goals** and the dollar amount the Contractor actually awarded and paid, and/or credited, to MBE and/or WBE firms. In view of the difficulty of accurately ascertaining the loss which the City will suffer by reason of Contractor's failure to meet the **Participation Goals**, the foregoing amount is hereby fixed and agreed as the liquidated damages that the City will suffer by reason of such failure, and not as a penalty. Agency may deduct and retain out of any monies which may become due under this Contract the amount of any such liquidated damages; and in case the amount which may become due under this Contract shall be less than the amount of liquidated damages suffered by the City, the Contractor shall be liable to pay the difference.


5. Whenever Agency has reason to believe that an MBE and/or WBE is not qualified for certification, or is participating in a contract in a manner that does not serve a commercially useful function (as defined in Section 6-129(c)(8)), or has violated any provision of Section 6-129, Agency shall notify the Commissioner of DSBS who shall determine whether the certification of such business enterprise should be revoked.

6. Statements made in any instrument submitted to Agency pursuant to Section 6-129 shall be submitted under penalty of perjury and any false or misleading statement or omission shall be grounds for the application of any applicable criminal and/or civil penalties for perjury. The making of a false or fraudulent statement by an MBE and/or WBE in any instrument submitted pursuant to Section 6-129 shall, in addition, be grounds for revocation of its certification.

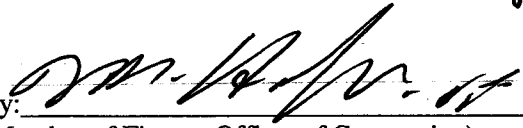
7. The Contractor's record in implementing its **M/WBE** Utilization Plan shall be a factor in the evaluation of its performance. Whenever Agency determines that a Contractor's compliance with an **M/WBE** Utilization Plan has been unsatisfactory, Agency shall, after consultation with the City Chief Procurement Officer, file an advice of caution form for inclusion in VENDEX as caution data.

IN WITNESS WHEREOF, the Commissioner, on behalf of the City of New York, and the Contractor, have executed this agreement in quadruplicate, two parts of which are to remain with the Commissioner, another to be filed with the Comptroller of the City, and the fourth to be delivered to the Contractor.

THE CITY OF NEW YORK

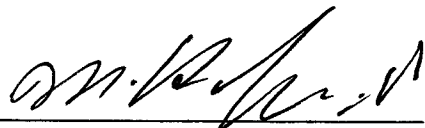
By: 
Deputy Commissioner

CONTRACTOR: Bedford Corp Constr. Inc

By: 
(Member of Firm or Officer of Corporation)

Title: _____

(Where Contractor is a Corporation, add):
Attest:


Secretary

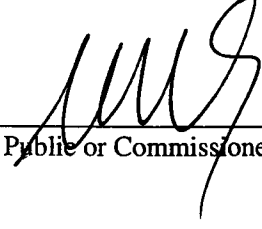
(Seal)

ACKNOWLEDGEMENT OF PRINCIPAL, IF A CORPORATION

State of New York County of Queens ss:

On this 12th day of May 2016, before me personally came Mohammad Hajisafari to me known who, being by me duly sworn did depose and say that he resides at 400 67th St New Jersey that he is the Vice President of the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that one of the seals affixed to said instrument is such seal; that it was so affixed by order of the directors of said corporation, and that he signed his name thereto by like order.

VICTORIA AYO-VAUGHAN
Notary Public, State of New York
Registration #01AY010415
Qualified in Queens County
Commission Expires July 15, 2019



Notary Public or Commissioner of Deeds

VICTORIA AYO-VAUGHAN
Notary Public, State of New York
Registration #01AY010415
Qualified in Queens County
Commission Expires July 15, 2019

ACKNOWLEDGEMENT OF PRINCIPAL, IF A PARTNERSHIP

State of _____ County of _____ ss:

On this _____ day of _____, _____, before me personally appeared _____ to me known, and known to me to be one of the members of the firm of _____ described in and who executed the foregoing instrument; and he acknowledged to me that he executed the same as and for the act and deed of said firm.

Notary Public or Commissioner of Deeds

ACKNOWLEDGEMENT OF PRINCIPAL, IF AN INDIVIDUAL

State of _____ County of _____ ss:

On this _____ day of _____, _____, before me personally appeared _____ to me known, and known to me to be the person described in and who executed the foregoing instrument; and acknowledged that he executed the same.

Notary Public or Commissioner of Deeds

ACKNOWLEDGEMENT BY COMMISSIONER

State of New York County of Queens ss:

On this 13th day of May, 2016 before me personally came Eric MacFarlane to me known, and known to be the Deputy Commissioner of the Department of Design and Construction of The City of New York, the person described as such in and who as such executed the foregoing instrument and acknowledged to me that he executed the same as Deputy Commissioner for the purposes therein mentioned.



Notary Public or Commissioner of Deeds

VICTORIA AYO-VAUGHAN
Notary Public, State of New York
Registration #01AY5014042
Qualified in Queens County
Commission Expires July 16, 2019

AUTHORITY

MAYOR'S CERTIFICATE NO. CBX
BUDGET DIRECTOR'S CERTIFICATE NO.

DATED
DATED

APPROPRIATION
COMMISSIONER'S CERTIFICATE

In conformity with the provisions of Section 6-101 of the Administrative Code of the City of New York, it is hereby certified that the estimated cost of the work, materials and supplies required by the within Contract, amounting to

*Forty four Million, Four Hundred
forty Three Thousand, Four Hundred
forty six dollars 44/100*

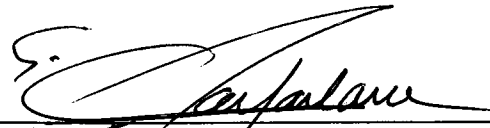
Dollars (\$ 44,443,446)

44/100

is chargeable to the fund of the Department of Design and Construction entitled Code

Department of Design and Construction

I hereby certify that the specifications contained herein comply with the terms and conditions of the BUDGET.


Deputy Commissioner

COMPTROLLER'S CERTIFICATE

The City of New York _____

Pursuant to the provisions of Section 6-101 of the Administrative Code of the City of New York, I hereby certify that there remains unapplied and unexpended a balance of the above mentioned fund applicable to this Contract sufficient to pay the estimated expense of executing the same viz:

\$ _____

Comptroller

Bond #58735572

Performance Bond #2 (Pages 96 to 99): Use if the total contract price is more than \$5 Million.

PERFORMANCE BOND #2 (Page 1)

PERFORMANCE BOND #2

KNOW ALL PERSONS BY THESE PRESENTS:

That we, _____

Bedford-Carp Construction, Inc.

77 Bloomfield Avenue, Staten Island, NY 10314

hereinafter referred to as the "Principal,"
and, _____

Western Surety Company

P.O. Box 5077, Sioux Falls, SD 57117-5077

hereinafter referred to as the "Surety" ("Sureties") are held and firmly bound to THE CITY OF NEW YORK, hereinafter referred to as the "City" or to its successors and assigns in the penal sum of _____

Forty Four Million Four Hundred Forty Three Thousand Four Hundred Forty Six and 44/100--

(\$ 44,443,446.44--) Dollars, lawful money of the United States for the payment of which said sum of money well and truly to be made, we, and each of us, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

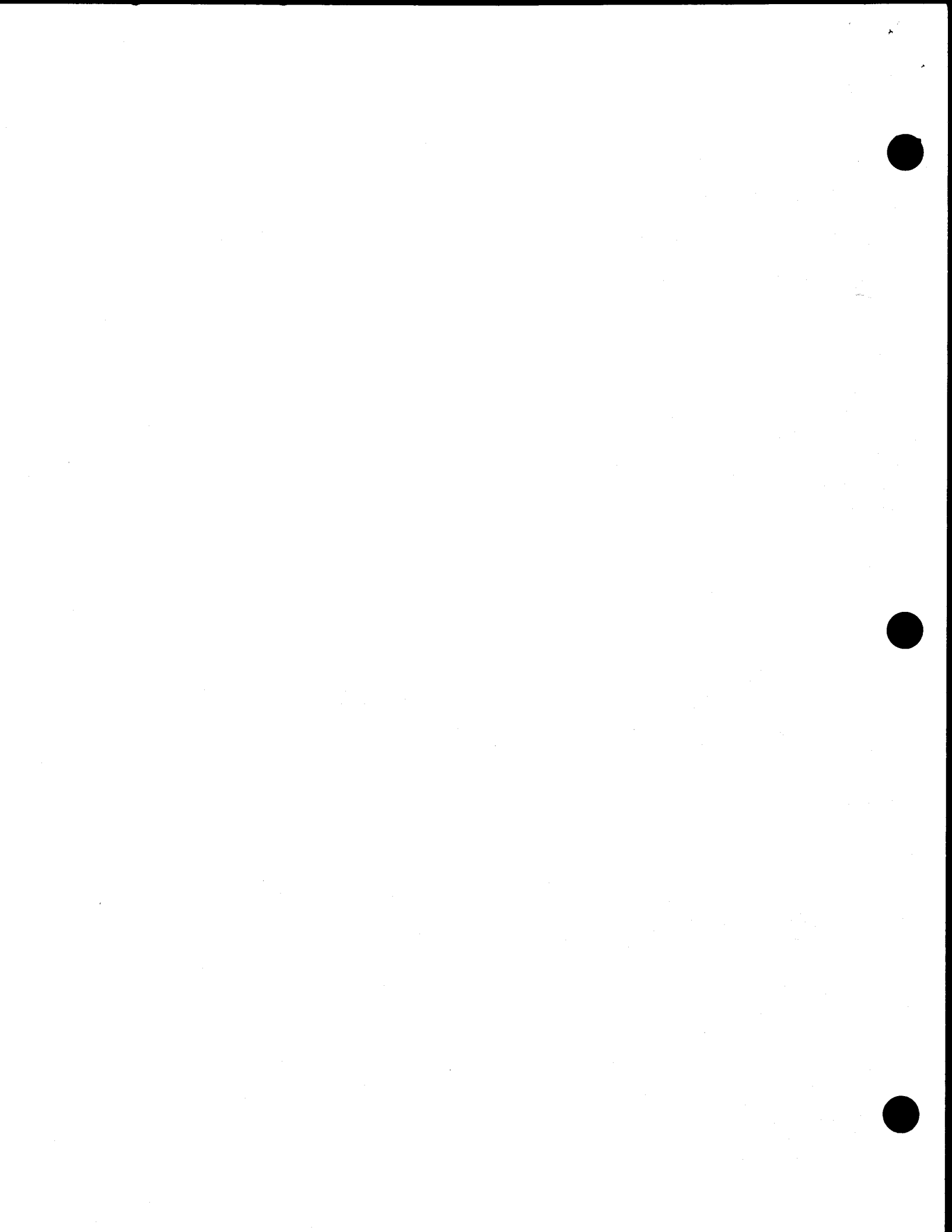
WHEREAS, the Principal is about to enter, or has entered, into a Contract in writing with the City for

FMS ID: CONISPH2B; Construction of Storm and Sanitary Sewers and Trunk Water Mains and

Appurtenances in Coney Island Area Phase 2B - Borough of Brooklyn

a copy of which Contract is annexed to and hereby made a part of this bond as though herein set forth in full;

NOW, THEREFORE, the conditions of this obligation are such that if the Principal, his or its representatives or assigns, shall well and faithfully perform the said Contract and all modifications, amendments, additions and alterations thereto that may hereafter be made, according to its terms and its true intent and meaning, including repair and or replacement of defective work and guarantees of maintenance for the periods stated in the Contract, and shall fully indemnify and save harmless the City from all cost and damage which it may suffer by reason of the Principal's default of the Contract, and shall fully reimburse and repay the City for all outlay and expense which the City may incur in making



Performance Bond #2 (Pages 96 to 99): Use if the total contract price is more than \$5 Million.

PERFORMANCE BOND #2 (Page 2)

good any such default and shall protect the said City of New York against, and pay any and all amounts, damages, cost and judgments which may or shall be recovered against said City or its officers or agents or which the said City of New York may be called upon to pay any person or corporation by reason of any damages arising or growing out of the Principal's default of the Contract, then this obligation shall be null and void, otherwise to remain in full force and effect.

The Surety (Sureties), for value received, hereby stipulates and agrees, upon written notice from the City that the City has determined that the Principal is in default of the Contract, to either (1) pay the full amount of the above penal sum in complete discharge and exoneration of this bond and of all the liabilities of the Surety relating to this bond, or (2) fully perform and complete the Work to be performed under the Contract, pursuant to the terms, conditions, and covenants thereof. The Surety (Sureties) further agrees, at its option, either to tender the penal sum or to commence and diligently perform the Work specified in the Contract, including physical site work, within twenty-five (25) business days after written notice thereof from the City and to complete all Work within the time set forth in the Contract or such other time as agreed to between the City and Surety in accordance with the Contract. The Surety and the City reserve all rights and defenses each may have against the other, provided, however, that the Surety expressly agrees that its reservation of rights shall not provide a basis for non-performance of its obligation to commence and to complete all Work as provided herein.

The Surety (Sureties), for value received, for itself and its successors and assigns, hereby stipulates and agrees that the obligation of said Surety (Sureties) and its bond shall be in no way impaired or affected by any extension of time, modification, omission, addition, or change in or to the said Contract or the Work to be performed thereunder, or by any payment thereunder before the time required therein, or by any waiver of any provisions thereof, or by any assignment, subletting or other transfer thereof or of any Work to be performed or any moneys due or to become due thereunder; and said Surety (Sureties) does hereby waive notice of any and all of such extensions, modifications, omissions, additions, changes, payments, waivers, assignments, subcontracts and transfers, and hereby expressly stipulates and agrees that any and all things done and omitted to be done by and in relation to assignees, subcontractors, and other transferees shall have the same effect as to said Surety (Sureties) as though done or omitted to be done by or in relation to said Principal.



Performance Bond #2 (Pages 96 to 99): Use if the total contract price is more than \$5 Million.

PERFORMANCE BOND #2 (Page 3)

IN WITNESS WHEREOF, The Principal and the Surety (Sureties) have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereunto affixed and these presents to be signed by their proper officers, this

11th day of May 20 16

(Seal)

Bedford-Carp Construction, Inc. (L.S.)
Principal

(Seal)

By: M. H. [Signature]
Mohammad H. [Signature]
Surety

Western Surety Company

(Seal)

By: Benedict J. Tockarshewsky
Benedict J. Tockarshewsky, Attorney-in-Fact
Surety

(Seal)

By: _____
Surety

(Seal)

By: _____
Surety

(Seal)

By: _____
Surety

By: _____

Bond Premium Rate Sliding Scale

Bond Premium Cost \$328,524.00

If the Contractor (Principal) is a partnership, the bond should be signed by each of the individuals who are partners.

If the Contractor (Principal) is a corporation, the bond should be signed in its correct corporate name by a duly authorized officer, agent, or attorney-in-fact.

There should be executed an appropriate number of counterparts of the bond corresponding to the number of counterparts of the Contract.

1. The first part of the document is a list of names and addresses of the members of the committee.

2. The second part of the document is a list of the names and addresses of the members of the committee.

Performance Bond #2 (Pages 96 to 99): Use if the total contract price is more than \$5 Million.

PERFORMANCE BOND #2 (Page 4)

ACKNOWLEDGMENT OF PRINCIPAL IF A CORPORATION

State of New York County of Richmond ss:

On this 12th day of May, 2016 before me personally came Mohammed Hajisatga to me known, who, being by me duly sworn did depose and say that he resides at 116 Major St, Lindau H.S. 09735; that he/she is the Vice President of the corporation described in and which executed the foregoing instrument; that he/she signed his/her name to the foregoing instrument by order of the directors of said corporation as the duly authorized and binding act thereof.

Doreen A. Forni
Notary Public or Commissioner of Deeds.

DOREEN A FORNI
Notary Public - State of New York
NO. 01F06294164
Qualified in Richmond County

ACKNOWLEDGMENT OF PARTNER IF A PARTNERSHIP

State of _____ County of _____ ss:

On this _____ day of _____, 20 _____ before me personally came _____ to me known, who, being by me duly sworn did depose and say that he/she resides at _____; that he/she is _____ partner of _____, a limited/general partnership existing under the laws of the State of _____, the partnership described in and which executed the foregoing instrument; and that he/she signed his/her name to the foregoing instrument as the duly authorized and binding act of said partnership.

Notary Public or Commissioner of Deeds

ACKNOWLEDGMENT OF PRINCIPAL IF AN INDIVIDUAL

State of _____ County of _____ ss:

On this _____ day of _____, 20 _____ before me personally came _____ to me known, who, being by me duly sworn did depose and say that he/she resides at _____

_____ and that he/she is the individual whose name is subscribed to the within instrument and acknowledged to me that by his/her signature on the instrument, said individual executed the instrument.

Notary Public or Commissioner of Deeds

Each executed bond should be accompanied by: (a) appropriate acknowledgments of the respective parties; (b) appropriate duly certified copy of Power of Attorney or other certificate of authority where bond is executed by agent, officer or other representative of Principal or Surety; (c) a duly certified extract from By-Laws or resolutions of Surety under which Power of Attorney or other certificate of authority of its agent, officer or representative was issued, and (d) certified copy of latest published financial statement of assets and liabilities of Surety.

Affix Acknowledgments and Justification of Sureties.

My Commission Expires Dec 16, 2017
Qualified in Richmond County
NO. 016824184
Notary Public - State of New York
STEPHEN A. BROWN

Individual Acknowledgment

State of _____

County of _____

On this _____ day of _____, 20____, before me personally came _____ to me known, and known to me to be the individual in and who executed the foregoing instrument, and acknowledged to me that he/she executed the same.

My commission expires _____

Notary Public

Corporation Acknowledgment

State of _____

County of _____

On the _____ day of _____, _____ before me personally came _____ to me known; who being by me duly sworn, did depose and say that he/she/they reside(s) in _____ that he/she/they is (are) the _____ of the _____, the corporation described in and which executed the above instrument; that he/she/they know(s) the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by authority of the board of directors of said corporation, and that he/she/they signed his/her/their name(s) thereto by like authority.

My commission expires _____

Notary Public

Surety Acknowledgment

State of New York

County of Westchester

On the 11th day of May, 2016 personally came Benedict J. Tockarshewsky to me known , who being by me duly sworn did depose and say that he/she is an Attorney-in-Fact of Western Surety Company in and which executed the above Instrument know(s) the corporate seal of said corporation; that the seal affixed to the within instrument is such corporate seal, and that he/she/they signed the said instrument and affixed the said seal as Attorney-in-fact by authority of the Board of Directors of said corporation and by authority of this office under the standing resolution thereof.

My commission expires _____

TINA CASTIELLO
NOTARY PUBLIC-STATE OF NEW YORK
No. 01CA6191205
Qualified in Westchester County
My Commission Expires August 04, 2016

Tina Castiello
Notary Public



Western Surety Company

POWER OF ATTORNEY APPOINTING INDIVIDUAL ATTORNEY-IN-FACT

Know All Men By These Presents, That WESTERN SURETY COMPANY, a South Dakota corporation, is a duly organized and existing corporation having its principal office in the City of Sioux Falls, and State of South Dakota, and that it does by virtue of the signature and seal herein affixed hereby make, constitute and appoint

William D Haas, Dennis M O Brien, Benedict J Tockarszewsky, Individually

of White Plains, NY, its true and lawful Attorney(s)-in-Fact with full power and authority hereby conferred to sign, seal and execute for and on its behalf bonds, undertakings and other obligatory instruments of similar nature

- In Unlimited Amounts -

and to bind it thereby as fully and to the same extent as if such instruments were signed by a duly authorized officer of the corporation and all the acts of said Attorney, pursuant to the authority hereby given, are hereby ratified and confirmed.

This Power of Attorney is made and executed pursuant to and by authority of the By-Law printed on the reverse hereof, duly adopted, as indicated, by the shareholders of the corporation.

In Witness Whereof, WESTERN SURETY COMPANY has caused these presents to be signed by its Vice President and its corporate seal to be hereto affixed on this 30th day of June, 2015.



WESTERN SURETY COMPANY

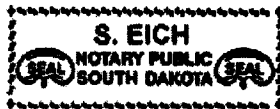
Paul T. Bruflat

Paul T. Bruflat, Vice President

State of South Dakota }
County of Minnehaha } ss

On this 30th day of June, 2015, before me personally came Paul T. Bruflat, to me known, who, being by me duly sworn, did depose and say: that he resides in the City of Sioux Falls, State of South Dakota; that he is the Vice President of WESTERN SURETY COMPANY described in and which executed the above instrument; that he knows the seal of said corporation; that the seal affixed to the said instrument is such corporate seal; that it was so affixed pursuant to authority given by the Board of Directors of said corporation and that he signed his name thereto pursuant to like authority, and acknowledges same to be the act and deed of said corporation.

My commission expires
February 12, 2021



S. Eich

S. Eich, Notary Public

CERTIFICATE

I, L. Nelson, Assistant Secretary of WESTERN SURETY COMPANY do hereby certify that the Power of Attorney hereinabove set forth is still in force, and further certify that the By-Law of the corporation printed on the reverse hereof is still in force. In testimony whereof I have hereunto subscribed my name and affixed the seal of the said corporation this 11th day of May, 2016.



WESTERN SURETY COMPANY

L. Nelson

L. Nelson, Assistant Secretary

Authorizing By-Law

ADOPTED BY THE SHAREHOLDERS OF WESTERN SURETY COMPANY

This Power of Attorney is made and executed pursuant to and by authority of the following By-Law duly adopted by the shareholders of the Company.

Section 7. All bonds, policies, undertakings, Powers of Attorney, or other obligations of the corporation shall be executed in the corporate name of the Company by the President, Secretary, and Assistant Secretary, Treasurer, or any Vice President, or by such other officers as the Board of Directors may authorize. The President, any Vice President, Secretary, any Assistant Secretary, or the Treasurer may appoint Attorneys in Fact or agents who shall have authority to issue bonds, policies, or undertakings in the name of the Company. The corporate seal is not necessary for the validity of any bonds, policies, undertakings, Powers of Attorney or other obligations of the corporation. The signature of any such officer and the corporate seal may be printed by facsimile.

WESTERN SURETY COMPANY
Sioux Falls, South Dakota
Statement of Net Admitted Assets and Liabilities
December 31, 2015

ASSETS

| | | |
|--|-----------|-----------------------------|
| Bonds | \$ | 1,694,282,606 |
| Common stocks | | 24,218,356 |
| Cash, cash equivalents, and short-term investments | | 25,339,975 |
| Investment income due and accrued | | 20,596,996 |
| Premiums and considerations | | 27,577,388 |
| Amounts recoverable from reinsurers | | 9,329,459 |
| Federal & foreign income taxes recoverable | | 3,597,963 |
| Net deferred tax asset | | 16,095,068 |
| Receivable from parent, subsidiaries, and affiliates | | 1,645,324 |
| Other assets | | 1,016,832 |
| Total Assets | \$ | <u>1,823,699,967</u> |

LIABILITIES AND SURPLUS

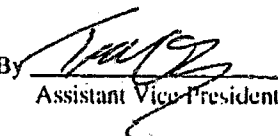
| | | |
|------------------------------------|-----------|---------------------------|
| Losses | \$ | 214,978,759 |
| Loss adjustment expense | | 56,382,252 |
| Other expenses | | 1,040,680 |
| Taxes, License and fees | | 2,313,346 |
| Unearned premiums | | 207,378,031 |
| Advance premiums | | 5,566,599 |
| Ceded reinsurance premiums payable | | 1,844,830 |
| Provision for reinsurance | | 681,280 |
| Other liabilities | | 10,175,884 |
| Total Liabilities | \$ | <u>500,361,661</u> |

Surplus Account:

| | | |
|---|-----------|-----------------------------|
| Common stock | \$ | 4,000,000 |
| Gross paid in and contributed surplus | | 280,071,837 |
| Unassigned funds | | 1,039,266,469 |
| Surplus as regards policyholders | \$ | <u>1,323,338,306</u> |
| Total Liabilities and Capital | \$ | <u>1,823,699,967</u> |

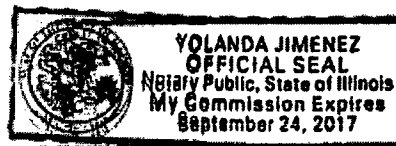
I, Troy Wray, Assistant Vice President of Western Surety Company hereby certify that the above is an accurate representation of the financial statement of the Company dated December 31, 2015, as filed with the various Insurance Departments and is a true and correct statement of the condition of Western Surety Company as of that date.

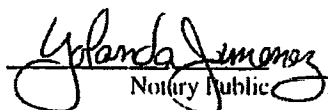
Western Surety Company

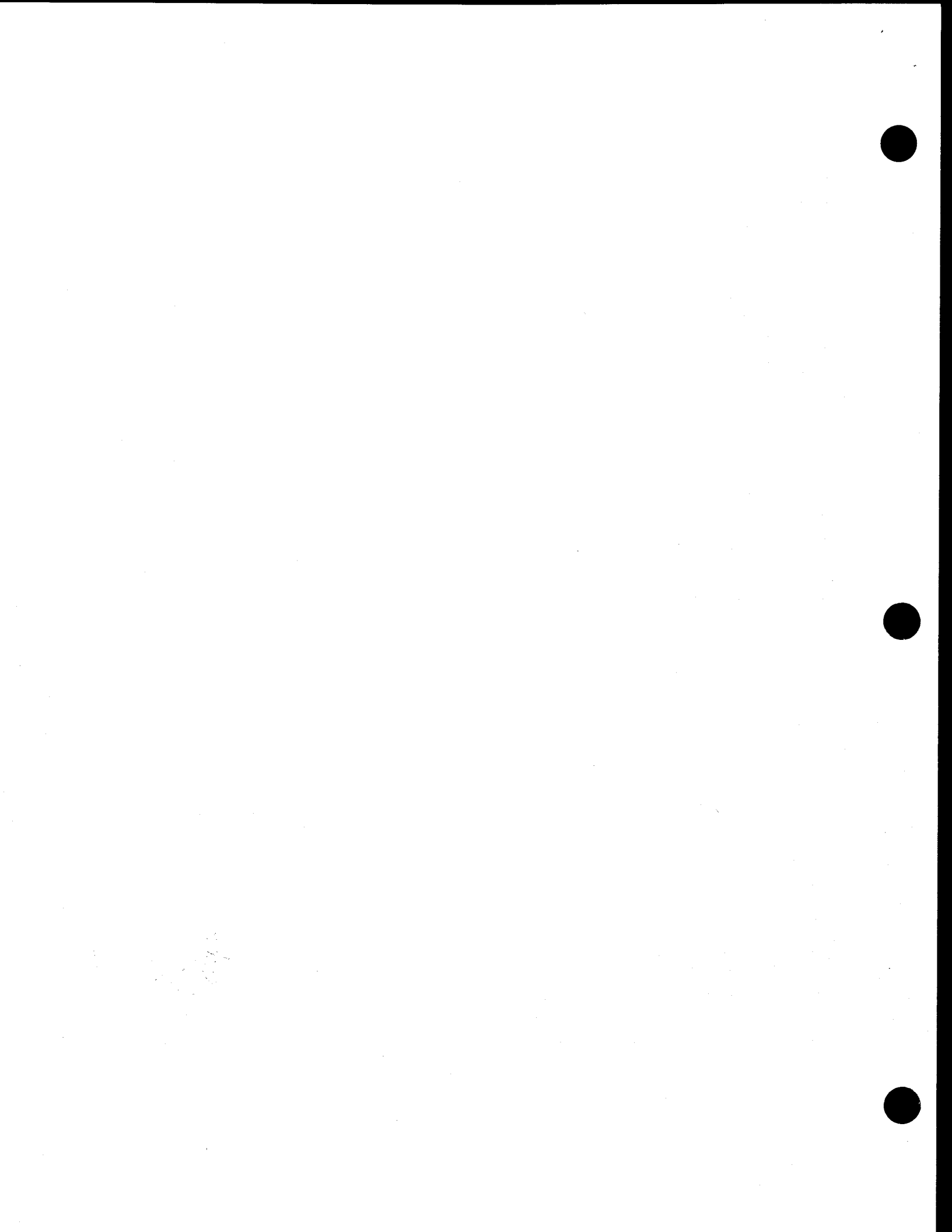
By 
Assistant Vice President

Subscribed and sworn to me this 21st day of March, 2016.

My commission expires:




Notary Public



Bond #58735572

Payment Bond (Pages 100 to 103): Use for any contract for which a Payment Bond is required.

PAYMENT BOND (Page 1)

PAYMENT BOND

KNOW ALL PERSONS BY THESE PRESENTS, That we, _____

Bedford-Carp Construction, Inc.

77 Bloomfield Avenue

Staten Island, NY 10314

hereinafter referred to as the "Principal", and _____

Western Surety Company

P.O. Box 5077

Sioux Falls, SD 57117-5077

hereinafter referred to as the "Surety" ("Sureties") are held and firmly bound to THE CITY OF NEW YORK, hereinafter referred to as the "City" or to its successors and assigns, in the penal sum of

Forty Four Million Four Hundred Forty Three Thousand Four Hundred Forty Six and 44/100--

(\$44,443,446.44) Dollars, lawful money of the United States, for the payment of which said sum of money well and truly to be made, we, and each of us, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal is about to enter, or has entered, into a Contract in writing with the City for

FMS ID: CONISPH2B: Construction of Storm and Sanitary Sewers and Trunk Water Mains

and Appurtenances in Coney Island Area Phase 2B - Borough of Brooklyn

a copy of which Contract is annexed to and hereby made a part of this bond as though herein set forth in full;

NOW, THEREFORE, the conditions of this obligation are such that if the Principal, his or its representatives or assigns and other Subcontractors to whom Work under this Contract is sublet and his or their successors and assigns shall promptly pay or cause to be paid all lawful claims for

(a) Wages and compensation for labor performed and services rendered by all persons engaged in the prosecution of the Work under said Contract, and any amendment or extension thereof or addition thereto, whether such persons be agents servants or employees of the Principal or any such Subcontractor, including all persons so engaged who perform the work of laborers or mechanics at or in the vicinity of the site



Payment Bond (Pages 100 to 103): Use for any contract for which a Payment Bond is required.

PAYMENT BOND (Page 2)

of the Project regardless of any contractual relationship between the Principal or such Subcontractors, or his or their successors or assigns, on the one hand and such laborers or mechanics on the other, but not including office employees not regularly stationed at the site of the project; and

(b) Materials and supplies (whether incorporated in the permanent structure or not), as well as teams, fuels, oils, implements or machinery furnished, used or consumed by said Principal or any subcontractor at or in the vicinity of the site of the Project in the prosecution of the Work under said Contract and any amendment or extension thereof or addition thereto, then this obligation shall be void, otherwise to remain in full force and effect.

This bond is subject to the following additional conditions, limitations and agreements:

(a) The Principal and Surety (Sureties) agree that this bond shall be for the benefit of any materialmen or laborer having a just claim, as well as the City itself.

(b) All persons who have performed labor, rendered services or furnished materials and supplies, as aforesaid, shall have a direct right of action against the Principal and his, its or their successors and assigns, and the Surety (Sureties) herein, or against either or both or any of them and their successors and assigns. Such persons may sue in their own name, and may prosecute the suit to judgment and execution without the necessity of joining with any other persons as party plaintiff.

(c) The Principal and Surety (Sureties) agree that neither of them will hold the City liable for any judgment for costs of otherwise, obtained by either or both of them against a laborer or materialman in a suit brought by either a laborer or materialman under this bond for moneys allegedly due for performing work or furnishing material.

(d) The Surety (Sureties) or its successors and assigns shall not be liable for any compensation recoverable by an employee or laborer under the Workmen's Compensation Law.

(e) In no event shall the Surety (Sureties), or its successors or assigns, be liable for a greater sum than the penalty of this bond or be subject to any suit, action or proceeding hereon that is instituted by any person, firm, or corporation hereunder later than two years after the complete performance of said Contract and final settlement thereof.

The Principal, for himself and his successors and assigns, and the Surety (Sureties), for itself and its successors and assigns, do hereby expressly waive any objection that might be interposed as to the right of the City to require a bond containing the foregoing provisions, and they do hereby further expressly waive any defense which they or either of them might interpose to an action brought hereon by any person, firm or corporation, including subcontractors, materialmen and third persons, for work, labor, services, supplies or material performed rendered, or furnished as aforesaid upon the ground that there is no law authorizing the City to require the foregoing provisions to be placed in this bond.

And the Surety (Sureties), for value received, for itself and its successors and assigns, hereby stipulates and agrees that the obligation of said Surety (Sureties), and its bonds shall be in no way impaired or affected by any extension of time, modification, omission, addition, or change in or of the said Contract or the work to be performed thereunder, or by any payment thereunder before the time required therein, or by any waiver of any provisions thereof, or by any assignment, subletting or other transfer thereof or of any part thereof, or of any Work to be performed, or any moneys due to become due thereunder and said Surety (Sureties) does hereby waive notice of any and all of such extensions, modifications, omissions, additions, changes, payments, waivers, assignments, subcontracts and transfers, and hereby expressly stipulates and agrees that any and all things done and omitted to be done by and in relation to assignees, Subcontractors, and other transferees shall have the same effect as to said Surety (Sureties) as though done or omitted to be done or in relation to said Principal.

CITY OF NEW YORK
DDC



Payment Bond (Pages 100 to 103): Use for any contract for which a Payment Bond is required.

PAYMENT BOND (Page 3)

IN WITNESS WHEREOF, the Principal and the Surety (Sureties) have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereunto affixed and these presents to be signed by their proper officers, this 11th day of May, 2016.

(Seal)

Bedford-Carp Construction, Inc. (L.S.)
Principal

By: M. H. H. H.
Mohammad Hajisafaei

(Seal)

Western Surety Company
Surety

By: Benedict J. Tockarszewsky
Benedict J. Tockarszewsky, Attorney-in-Fact

(Seal)

Surety

By: _____

(Seal)

Surety

By: _____

(Seal)

Surety

By: _____

If the Contractor (Principal) is a partnership, the bond should be signed by each of the individuals who are partners.

If the Contractor (Principal) is a corporation, the bond should be signed in its correct corporate name by a duly authorized officer, agent, or attorney-in-fact.

There should be executed an appropriate number of counterparts of the bond corresponding to the number of counterparts of the Contract.



[Faint, illegible text or markings, possibly bleed-through from the reverse side of the page.]



Payment Bond (Pages 100 to 103): Use for any contract for which a Payment Bond is required.

PAYMENT BOND (Page 4)

ACKNOWLEDGMENT OF PRINCIPAL, IF A CORPORATION

State of New York County of Richmond ss:

On this 12th day of May, 2016, before me personally came Mohammed Hajsafaei to me known, who, being by me duly sworn did depose and say that he resides at 116 Mejer St Waldorf MD 20735 that he is the Vice President of the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that one of the seals affixed to said instrument is such seal; that it was so affixed by order of the directors of said corporation, and that he signed his name thereto by like order.

DOREEN A FORNI
Notary Public - State of New York
NO. 01F06294164
Qualified in Richmond County
My Commission Expires Dec 16, 2017

Doreen A. Fornie
Notary Public or Commissioner of Deeds

ACKNOWLEDGMENT OF PRINCIPAL, IF A PARTNERSHIP

State of _____ County of _____ ss:

On this _____ day of _____, before me personally appeared _____ to me known, and known to me to be one of the members of the firm of _____ described in and who executed the foregoing instrument; and he acknowledged to me that he executed the same as and for the act and deed of said firm.

Notary Public or Commissioner of Deeds

ACKNOWLEDGMENT OF PRINCIPAL, IF AN INDIVIDUAL

State of _____ County of _____ ss:

On this _____ day of _____, before me personally appeared _____ to me known, and known to me to be the person described in and who executed the foregoing instrument; and acknowledged that he executed the same.

Notary Public or Commissioner of Deeds

Each executed bond should be accompanied by: (a) appropriate acknowledgments of the respective parties; (b) appropriate duly certified copy of Power of Attorney or other certificate of authority where bond is executed by agent, officer or other representative of Principal or Surety; (c) a duly certified extract from By-Laws or resolutions of Surety under which Power of Attorney or other certificate of authority of its agent, officer or representative was issued, and (d) certified copy of latest published financial statement of assets and liabilities of Surety.

Affix Acknowledgments and Justification of Sureties.

DOREEN A. FORMI
Notary Public - State of New York
NO. 01F08294164
Qualified in Richmond County
My Commission Expires Dec 18, 2017

Individual Acknowledgment

State of _____

County of _____

On this _____ day of _____, 20____, before me personally came _____ to me known, and known to me to be the individual in and who executed the foregoing instrument, and acknowledged to me that he/she executed the same.

My commission expires _____
Notary Public

Corporation Acknowledgment

State of _____

County of _____

On the _____ day of _____, _____ before me personally came _____ to me known; who being by me duly sworn, did depose and say that he/she/they reside(s) in _____ that he/she/they is (are) the _____ of the _____, the corporation described in and which executed the above instrument; that he/she/they know(s) the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by authority of the board of directors of said corporation, and that he/she/they signed his/her/their name(s) thereto by like authority.

My commission expires _____
Notary Public

Surety Acknowledgment

State of New York

County of Westchester

On the 11th day of May, 2016 personally came Benedict J. Tockarshewsky to me known , who being by me duly sworn did depose and say that he/she is an Attorney-in-Fact of Western Surety Company in and which executed the above Instrument know(s) the corporate seal of said corporation; that the seal affixed to the within instrument is such corporate seal, and that he/she/they signed the said instrument and affixed the said seal as Attorney-in-fact by authority of the Board of Directors of said corporation and by authority of this office under the standing resolution thereof.

TINA CASTIELLO
NOTARY PUBLIC-STATE OF NEW YORK
My commission expires _____ No. 01CA6191205
Qualified in Westchester County
My Commission Expires August 04, 2016

Tina Castello
Notary Public



Western Surety Company

POWER OF ATTORNEY APPOINTING INDIVIDUAL ATTORNEY-IN-FACT

Know All Men By These Presents, That WESTERN SURETY COMPANY, a South Dakota corporation, is a duly organized and existing corporation having its principal office in the City of Sioux Falls, and State of South Dakota, and that it does by virtue of the signature and seal herein affixed hereby make, constitute and appoint

William D Haas, Dennis M O Brien, Benedict J Tockarszewsky, Individually

of White Plains, NY, its true and lawful Attorney(s)-in-Fact with full power and authority hereby conferred to sign, seal and execute for and on its behalf bonds, undertakings and other obligatory instruments of similar nature

- In Unlimited Amounts -

and to bind it thereby as fully and to the same extent as if such instruments were signed by a duly authorized officer of the corporation and all the acts of said Attorney, pursuant to the authority hereby given, are hereby ratified and confirmed.

This Power of Attorney is made and executed pursuant to and by authority of the By-Law printed on the reverse hereof, duly adopted, as indicated, by the shareholders of the corporation.

In Witness Whereof, WESTERN SURETY COMPANY has caused these presents to be signed by its Vice President and its corporate seal to be hereto affixed on this 30th day of June, 2015.



WESTERN SURETY COMPANY

Paul T. Bruflat

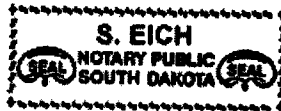
Paul T. Bruflat, Vice President

State of South Dakota }
County of Minnehaha } ss

On this 30th day of June, 2015, before me personally came Paul T. Bruflat, to me known, who, being by me duly sworn, did depose and say: that he resides in the City of Sioux Falls, State of South Dakota; that he is the Vice President of WESTERN SURETY COMPANY described in and which executed the above instrument; that he knows the seal of said corporation; that the seal affixed to the said instrument is such corporate seal; that it was so affixed pursuant to authority given by the Board of Directors of said corporation and that he signed his name thereto pursuant to like authority, and acknowledges same to be the act and deed of said corporation.

My commission expires

February 12, 2021



S. Eich

S. Eich, Notary Public

CERTIFICATE

I, L. Nelson, Assistant Secretary of WESTERN SURETY COMPANY do hereby certify that the Power of Attorney hereinabove set forth is still in force, and further certify that the By-Law of the corporation printed on the reverse hereof is still in force. In testimony whereof I have hereunto subscribed my name and affixed the seal of the said corporation this 11th day of May, 2016.



WESTERN SURETY COMPANY

L. Nelson

L. Nelson, Assistant Secretary

Authorizing By-Law

ADOPTED BY THE SHAREHOLDERS OF WESTERN SURETY COMPANY

This Power of Attorney is made and executed pursuant to and by authority of the following By-Law duly adopted by the shareholders of the Company.

Section 7. All bonds, policies, undertakings, Powers of Attorney, or other obligations of the corporation shall be executed in the corporate name of the Company by the President, Secretary, and Assistant Secretary, Treasurer, or any Vice President, or by such other officers as the Board of Directors may authorize. The President, any Vice President, Secretary, any Assistant Secretary, or the Treasurer may appoint Attorneys in Fact or agents who shall have authority to issue bonds, policies, or undertakings in the name of the Company. The corporate seal is not necessary for the validity of any bonds, policies, undertakings, Powers of Attorney or other obligations of the corporation. The signature of any such officer and the corporate seal may be printed by facsimile.

WESTERN SURETY COMPANY
Sioux Falls, South Dakota
Statement of Net Admitted Assets and Liabilities
December 31, 2015

ASSETS

| | |
|--|-------------------------|
| Bonds | \$ 1,694,282,606 |
| Common stocks | 24,218,356 |
| Cash, cash equivalents, and short-term investments | 25,339,975 |
| Investment income due and accrued | 20,596,996 |
| Premiums and considerations | 27,577,388 |
| Amounts recoverable from reinsurers | 9,329,459 |
| Federal & foreign income taxes recoverable | 3,597,963 |
| Net deferred tax asset | 16,095,068 |
| Receivable from parent, subsidiaries, and affiliates | 1,645,324 |
| Other assets | 1,016,832 |
| Total Assets | <u>\$ 1,823,699,967</u> |

LIABILITIES AND SURPLUS

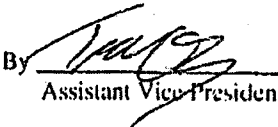
| | |
|------------------------------------|-----------------------|
| Losses | \$ 214,978,759 |
| Loss adjustment expense | 56,382,252 |
| Other expenses | 1,040,680 |
| Taxes, License and fees | 2,313,346 |
| Unearned premiums | 207,378,031 |
| Advance premiums | 5,566,599 |
| Ceded reinsurance premiums payable | 1,844,830 |
| Provision for reinsurance | 681,280 |
| Other liabilities | 10,175,884 |
| Total Liabilities | <u>\$ 500,361,661</u> |

Surplus Account:

| | |
|---------------------------------------|-------------------------|
| Common stock | \$ 4,000,000 |
| Gross paid in and contributed surplus | 280,071,837 |
| Unassigned funds | <u>1,039,266,469</u> |
| Surplus as regards policyholders | \$ 1,323,338,306 |
| Total Liabilities and Capital | <u>\$ 1,823,699,967</u> |

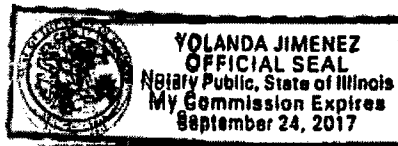
I, Troy Wray, Assistant Vice President of Western Surety Company hereby certify that the above is an accurate representation of the financial statement of the Company dated December 31, 2015, as filed with the various Insurance Departments and is a true and correct statement of the condition of Western Surety Company as of that date.

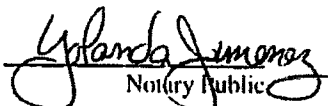
Western Surety Company

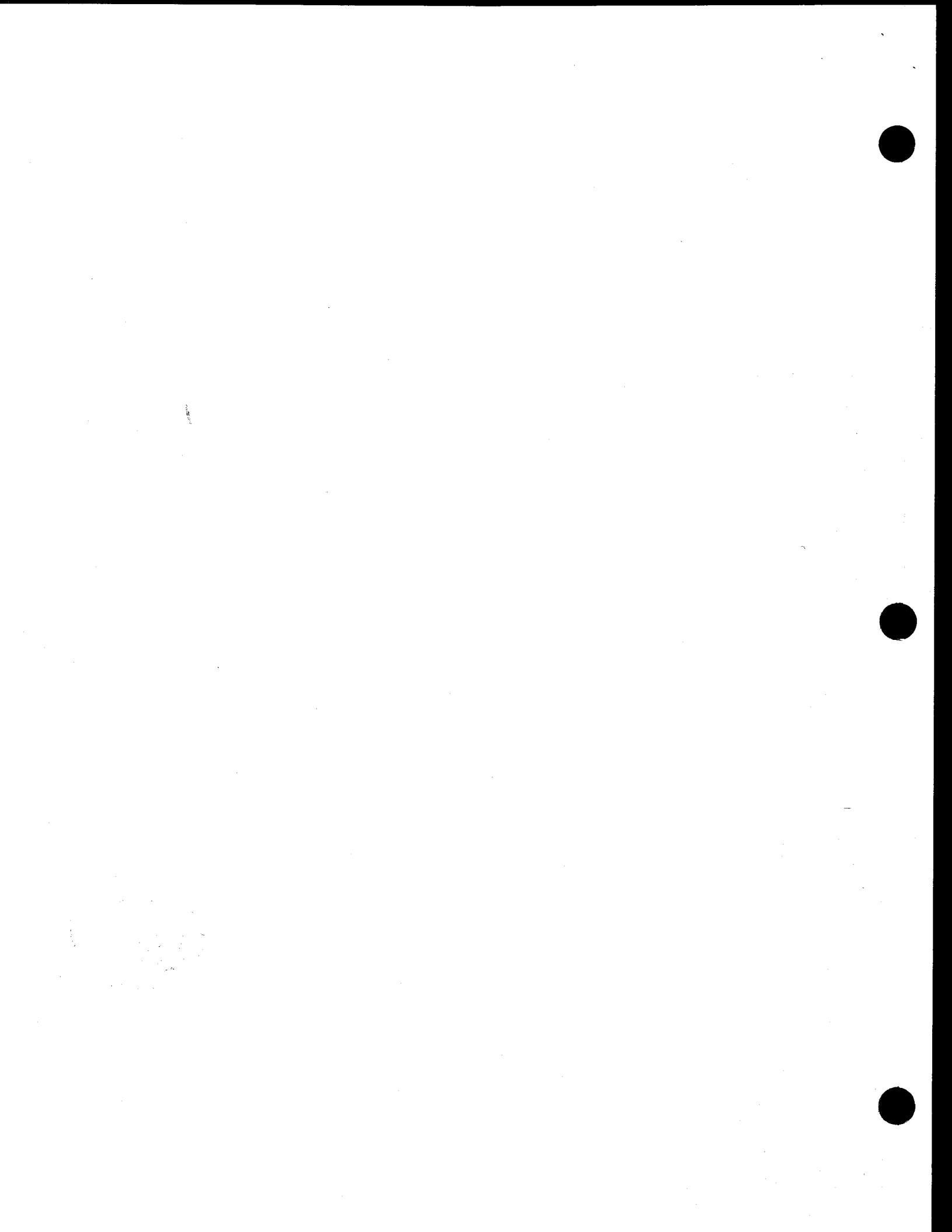
By 
Assistant Vice President

Subscribed and sworn to me this 21st day of March, 2016.

My commission expires:




Notary Public



CERTIFICATE OF LIABILITY INSURANCE

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER: USI Insurance Services LLC, 333 Westchester Ave, Suite 102, White Plains, NY 10604, 914 459-6200. CONTACT NAME, PHONE (A/C, No, Ext): 914 459-6200, FAX (A/C, No): 610 537-4220. INSURER(S) AFFORDING COVERAGE: INSURER A: James River Insurance Company (NAIC # 12203), INSURER B: Starr Indemnity & Liability Com (38318), INSURER C: State Insurance Fund (36102), INSURER D: North River Insurance Company (21105), INSURER E: , INSURER F: .

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

Table with columns: INSR LTR, TYPE OF INSURANCE, ADDL SUBR INSR WVD, POLICY NUMBER, POLICY EFF (MM/DD/YYYY), POLICY EXP (MM/DD/YYYY), LIMITS. Rows include Commercial General Liability (000717800), Automobile Liability (1337382396), Umbrella Liab (1000022746), and Workers Compensation and Employers' Liability (14724512).

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required) FMS ID: CONISPH2B / E-Pin: 85015B0153001 / DDC Pin: 8502013SE0045C For the construction of storm and sanitary sewers and trunk water mains and appurtenances in Coney Island Area Phase 2B - Borough of Brooklyn

CERTIFICATE HOLDER: New York City Department of Design and Construction, 30-30 Thomson Avenue, Long Island City, NY 11101. CANCELLATION: SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE: Ullie Scott



DESCRIPTIONS (Continued from Page 1)

written contract: The City of New York including its officials and employees; The New York City Transit Authority (NYCTA), Manhattan and Bronx Surface Transit Operation Authority (MaBSTOA), Staten Island Rapid Transit Operation Authority (SIRTOA), Metropolitan Transportation Authority (MTA).

Waiver of Subrogation applies in favor of the additional insured if required by a written contract.

A 30 day notice of cancellation, 10 day for non payment, will be sent to the The New York City Department of Design and Construction and the MTA Risk and Insurance Management Standards, Enforcement and Claims Unit.





New York State Insurance Fund

Workers' Compensation & Disability Benefits Specialists Since 1914

199 CHURCH STREET, NEW YORK, N.Y. 10007-1100
Phone: (888) 997-3863

CERTIFICATE OF WORKERS' COMPENSATION INSURANCE

***** 800951159
HAMOND SAFETY MANAGEMENT LLC
6800 JERICHO TURNPIKE
SUITE 105W
SYOSSET NY 11791



Scan to Validate

POLICYHOLDER
BEDFORD-CARP CONSTRUCTION INC
77 BLOOMFIELD AVE
STATEN ISLAND NY 10314

CERTIFICATE HOLDER
NEW YORK CITY DEPARTMENT OF
DESIGN & CONSTRUCTION
30-30 THOMSON AVENUE
LONG ISLAND CITY NY 10001

| POLICY NUMBER | CERTIFICATE NUMBER | PERIOD COVERED BY THIS CERTIFICATE | DATE |
|---------------|--------------------|------------------------------------|-----------|
| Z1472 451-2 | 424796 | 01/01/2016 TO 01/01/2017 | 5/13/2016 |

THIS IS TO CERTIFY THAT THE POLICYHOLDER NAMED ABOVE IS INSURED WITH THE NEW YORK STATE INSURANCE FUND UNDER POLICY NO. 1472 451-2 UNTIL 01/01/2017, COVERING THE ENTIRE OBLIGATION OF THIS POLICYHOLDER FOR WORKERS' COMPENSATION UNDER THE NEW YORK WORKERS' COMPENSATION LAW WITH RESPECT TO ALL OPERATIONS IN THE STATE OF NEW YORK, EXCEPT AS INDICATED BELOW.

IF SAID POLICY IS CANCELLED, OR CHANGED PRIOR TO 01/01/2017 IN SUCH MANNER AS TO AFFECT THIS CERTIFICATE, 10 DAYS WRITTEN NOTICE OF SUCH CANCELLATION WILL BE GIVEN TO THE CERTIFICATE HOLDER ABOVE. NOTICE BY REGULAR MAIL SO ADDRESSED SHALL BE SUFFICIENT COMPLIANCE WITH THIS PROVISION. THE NEW YORK STATE INSURANCE FUND DOES NOT ASSUME ANY LIABILITY IN THE EVENT OF FAILURE TO GIVE SUCH NOTICE.

THE POLICY INCLUDES A WAIVER OF SUBROGATION ENDORSEMENT UNDER WHICH NYSIF AGREES TO WAIVE ITS RIGHT OF SUBROGATION TO BRING AN ACTION AGAINST THE CERTIFICATE HOLDER TO RECOVER AMOUNTS WE PAID IN WORKERS' COMPENSATION AND/OR MEDICAL BENEFITS TO OR ON BEHALF OF AN EMPLOYEE OF OUR INSURED IN THE EVENT THAT, PRIOR TO THE DATE OF THE ACCIDENT, THE CERTIFICATE HOLDER HAS ENTERED INTO A WRITTEN CONTRACT WITH OUR INSURED THAT REQUIRES THAT SUCH RIGHT OF SUBROGATION BE WAIVED.

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS NOR INSURANCE COVERAGE UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICY.

NEW YORK STATE INSURANCE FUND

DIRECTOR, INSURANCE FUND UNDERWRITING

This certificate can be validated on our web site at <https://www.nysif.com/cert/certval.asp> or by calling (888) 875-5790
VALIDATION NUMBER: 805625022





CERTIFICATE OF INSURANCE COVERAGE UNDER THE NYS DISABILITY BENEFITS LAW

PART 1. To be completed by Disability Benefits Carrier or Licensed Insurance Agent of that Carrier

1a. Legal Name & Address of Insured (use street address only)
BEDFORD-CARP CONSTRUCTION INC.
77 BLOOMFIELD AVENUE
STATEN ISLAND, NY 10314

1b. Business Telephone Number of Insured
718-494-8600

1c. NYS Unemployment Insurance Employer Registration Number of Insured
PENDING

Work Location of Insured (Only required if coverage is specifically limited to certain locations in New York State, i.e., a Wrap-Up Policy)

1d. Federal Employer Identification Number of Insured or Social Security Number
80-0951159

2. Name and Address of Entity Requesting Proof of Coverage (Entity Being Listed as the Certificate Holder)
New York City
Department of Design and Construction
30-30 Thomson Avenue
Long Island City, NY 11101

3a. Name of Insurance Carrier
Standard Security Life Insurance Company of New York

3b. Policy Number of Entity Listed in Box "1a"
R09228-000

3c. Policy effective period
3/1/2013 to 5/12/2017

4. Policy covers:

- A. All of the employer's employees eligible under the New York Disability Benefits Law
- B. Only the following class or classes of employer's employees:

Under penalty of perjury, I certify that I am an authorized representative or licensed agent of the insurance carrier referenced above and that the named insured has NYS Disability Benefits insurance coverage as described above.

Date Signed 5/13/2016 By *Beth A. Spangol*
(Signature of insurance carrier's authorized representative or NYS Licensed Insurance Agent of that insurance carrier)

Telephone Number (212) 355-4141 Title SUPERVISOR-DBL/POLICY SERVICES

IMPORTANT: If Box "4a" is checked, and this form is signed by the insurance carrier's authorized representative or NYS Licensed Insurance Agent of that carrier, this certificate is COMPLETE. Mail it directly to the certificate holder.
If Box "4b" is checked, this certificate is NOT COMPLETE for purposes of Section 220, Subd. 8 of the Disability Benefits Law. It must be mailed for completion to the Workers' Compensation Board, DB Plans Acceptance Unit, 328 State Street, Schenectady, NY 12305

PART 2. To be completed by the NYS Workers' Compensation Board (Only if Box "4b" of Part 1 has been checked)

**State of New York
Workers' Compensation Board**

According to information maintained by the NYS Workers' Compensation Board, the above-named employer has complied with the NYS Disability Benefits Law with respect to all of his/her employees.

Date Signed _____ By _____
(Signature of NYS Workers' Compensation Board Employee)

Telephone Number _____ Title _____

Please Note: Only insurance carriers licensed to write NYS disability benefits insurance policies and NYS licensed insurance agents of those insurance carriers are authorized to issue Form DB-120.1. **Insurance brokers are NOT authorized to issue this form.**



Additional Instructions for Form DB-120.1

By signing this form, the insurance carrier identified in box "3" on this form is certifying that it is insuring the business referenced in box "1a" for disability benefits under the New York State Disability Benefits Law. The Insurance Carrier or its licensed agent will send this Certificate of Insurance to the entity listed as the certificate holder in box "2".

Will the carrier notify the certificate holder within 10 days of a policy being cancelled for non-payment of premium or within 30 days if cancelled for any other reason or if the insured is otherwise eliminated from the coverage indicated on this certificate prior to the end of the policy effective period? YES NO

This certificate is issued as a matter of information only and confers no rights upon the certificate holder. This certificate does not amend, extend or alter the coverage afforded by the policy listed, nor does it confer any rights or responsibilities beyond those contained in the referenced policy.

This certificate may be used as evidence of a Disability Benefits contract of insurance only while the underlying policy is in effect.

Please Note: Upon the cancellation of the disability benefits policy indicated on this form, if the business continues to be named on a permit, license or contract issued by a certificate holder, the business must provide that certificate holder with a new Certificate of NYS Disability Benefits Coverage or other authorized proof that the business is complying with the mandatory coverage requirements of the New York State Disability Benefits Law.

DISABILITY BENEFITS LAW

§220. Subd. 8

(a) The head of a state or municipal department, board, commission or office authorized or required by law to issue any permit for or in connection with any work involving the employment of employees in employment as defined in this article, and not withstanding any general or special statute requiring or authorizing the issue of such permits, shall not issue such permit unless proof duly subscribed by an insurance carrier is produced in a form satisfactory to the chair, that the payment of disability benefits for all employees has been secured as provided by this article. Nothing herein, however, shall be construed as creating any liability on the part of such state or municipal department, board, commission or office to pay any disability benefits to any such employee if so employed.

(b) The head of a state or municipal department, board, commission or office authorized or required by law to enter into any contract for or in connection with any work involving the employment of employees in employment as defined in this article and notwithstanding any general or special statute requiring or authorizing any such contract, shall not enter into any such contract unless proof duly subscribed by an insurance carrier is produced in a form satisfactory to the chair, that the payment of disability benefits for all employees has been secured as provided by this article.



**CITY OF NEW YORK
CERTIFICATION BY BROKER OR AGENT**

The undersigned insurance broker represents to The City of New York that the attached Certificate of Insurance is accurate in all material respects.

USI Insurance Services LLC
[Name of broker (typewritten)]

333 Westchester Avenue, Suite 102
White Plains, NY 10604
[Address of broker (typewritten)]

Melanie.Hardja@usi.biz
[Email address of broker or agent (typewritten)]

Phone: 914-459-6251 / Fax: 610-537-4053
[Phone number/Fax number of broker or agent (typewritten)]

Melanie Hardja
[Signature of Authorized Official or Broker]

Melanie Hardja, Account Manager
[Name and title of authorized official (typewritten)]

State of New York.....)
County of Westchester.....) ss.:

Sworn to before me this 13th day of May, 2016

Marnie Ginsburg
NOTARY PUBLIC FOR THE STATE OF New York

MARNIE GINSBURG
Notary Public, State of New York
No. 0192156136
Qualified in Queens County
Commission Expires 11/03/20 16



MAYOR'S CERTIFICATE OR
CERTIFICATE OF THE DIRECTOR
OF THE BUDGET

Performance Bond #1 (Pages 92 to 95): Use if the total contract price is \$5 Million Or Less. Performance Bond #1 has been approved by the U.S. Small Business Administration ("SBA") for participation in its Bond Guarantee Program.

PERFORMANCE BOND #1 (Page 1)

PERFORMANCE BOND #1

KNOW ALL PERSONS BY THESE PRESENTS,;

That we, _____

hereinafter referred to as the "Principal,"

and, _____

hereinafter referred to as the "Surety" ("Sureties") are held and firmly bound to THE CITY OF NEW YORK, hereinafter referred to as the "City" or to its successors and assigns in the penal sum of _____

(\$ _____) Dollars, lawful money of the United States for the payment of which said sum of money well and truly to be made, we, and each of us, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal is about to enter, or has entered, into a Contract in writing with the City for _____

a copy of which Contract is annexed to and hereby made a part of this bond as though herein set forth in full;

NOW, THEREFORE, the conditions of this obligation are such that if the Principal, his or its representatives or assigns, shall well and faithfully perform the said Contract and all modifications, amendments, additions and alterations thereto that may hereafter be made, according to its terms and its true intent and meaning, including repair and or replacement of defective work and guarantees of maintenance for the periods stated in the Contract, and shall fully indemnify and save harmless the City from all cost and damage which it may suffer by reason of the Principal's default of the Contract, and shall fully reimburse and repay the City for all outlay and expense which the City may incur in making

Performance Bond #1 (Pages 92 to 95): Use if the total contract price is \$5 Million Or Less. Performance Bond #1 has been approved by the U.S. Small Business Administration ("SBA") for participation in its Bond Guarantee Program.

PERFORMANCE BOND #1 (Page 2)

good any such default and shall protect the said City of New York against, and pay any and all amounts, damages, cost and judgments which may or shall be recovered against said City or its officers or agents or which the said City of New York may be called upon to pay any person or corporation by reason of any damages arising or growing out of the Principal's default of the Contract, then this obligation shall be null and void, otherwise to remain in full force and effect.

The Surety (Sureties), for value received, hereby stipulates and agrees, upon written notice from the City that the City has determined that the Principal is in default of the Contract, to (1) pay the City the cost to complete the contract as determined by the City in excess of the balance of the Contract held by the City, plus any damages or costs to which the City is entitled, up to the full amount of the above penal sum, (2) fully perform and complete the Work to be performed under the Contract, pursuant to the terms, conditions, and covenants thereof, or (3) tender a completion Contractor that is acceptable to the City. The Surety (Sureties) further agrees, at its option, either to notify the City that it elects to pay the city the cost of completion plus any applicable damages and costs under option (1) above, or to commence and diligently perform the Work specified in the Contract, including physical site work, within twenty-five (25) business days after written notice thereof from the City and, if the Surety elects to fully perform and complete the Work, then to complete all Work within the time set forth in the Contract or such other time as agreed to between the City and Surety in accordance with the Contract. If the Surety elects to tender payment pursuant to (1) above, then the Surety shall tender such amount within fifteen (15) business days notification from the City of the cost of completion. The Surety and the City reserve all rights and defenses each may have against the other; provided, however, that the Surety expressly agrees that its reservation of rights shall not provide a basis for non-performance of its obligation to pay the City the cost of completion, to commence and complete all Work as provided herein, or to tender a completion contractor.

The Surety (Sureties), for value received, for itself and its successors and assigns, hereby stipulates and agrees that the obligation of said Surety (Sureties) and its bond shall be in no way impaired or affected by any extension of time, modification, omission, addition, or change in or to the said Contract or the Work to be performed thereunder, or by any payment thereunder before the time required therein, or by any waiver of any provisions thereof, or any moneys due or to become due thereunder; and said Surety (Sureties) does hereby waive notice of any and all of such extensions, modifications, omissions, additions, changes, payments, and waivers, and hereby expressly stipulates and agrees that any and all things done and omitted to be done by and in relation to subcontractors shall have the same effect as to said Surety (Sureties) as though done or omitted to be done by or in relation to said Principal. Notwithstanding the above, if the City makes payments to the Principal before the time required by the contract that in the aggregate exceed \$100,000 or 10% of the Contract price, whichever is less, and that have not become earned prior to the Principal being found to be in default, then all payments made to the Principal before the time required by the Contract shall be added to the remaining contract value available to be paid for the completion of the Contract as if such sums had not been paid to the Principal, but shall not provide a basis for non-performance of its obligation to pay the City the cost of completion, to commence and to complete all Work as provided herein, or to tender a completion contractor.

Performance Bond #1 (Pages 92 to 95): Use if the total contract price is \$5 Million Or Less. Performance Bond #1 has been approved by the U.S. Small Business Administration ("SBA") for participation in its Bond Guarantee Program.

PERFORMANCE BOND #1 (Page 3)

IN WITNESS WHEREOF, The Principal and the Surety (Sureties) have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereunto affixed and these presents to be signed by their proper officers, this

_____ day of _____, 20_____
(Seal)

Principal (L.S.)

(Seal) By: _____
Surety

(Seal) By: _____
Surety

(Seal) By: _____
Surety

(Seal) By: _____
Surety

(Seal) By: _____
Surety

By: _____

Bond Premium Rate _____

Bond Premium Cost _____

If the Contractor (Principal) is a partnership, the bond should be signed by each of the individuals who are partners.

If the Contractor (Principal) is a corporation, the bond should be signed in its correct corporate name by a duly authorized officer, agent, or attorney-in-fact.

There should be executed an appropriate number of counterparts of the bond corresponding to the number of counterparts of the Contract.

Performance Bond #1 (Pages 92 to 95): Use if the total contract price is \$5 Million Or Less. Performance Bond #1 has been approved by the U.S. Small Business Administration ("SBA") for participation in its Bond Guarantee Program.

PERFORMANCE BOND #1 (Page 4)

ACKNOWLEDGMENT OF PRINCIPAL IF A CORPORATION

State of _____ County of _____ ss:

On this _____ day of _____, 20 _____ before me personally came _____, to me known, who, being by me duly sworn did depose and say that he/she resides at _____

_____ ; that he/she is the _____ of the corporation described in and which executed the foregoing instrument; and that he/she signed his/her name to the foregoing instrument by order of the directors of said corporation as the duly authorized and binding act thereof.

Notary Public or Commissioner of Deeds.

ACKNOWLEDGMENT OF PRINCIPAL IF A PARTNERSHIP

State of _____ County of _____ ss:

On this _____ day of _____, 20 _____ before me personally came _____, to me known, who, being by me duly sworn did depose and say that he/she resides at _____

_____ ; that he/she is _____ partner of _____, a limited/general partnership existing under the laws of the State of _____, the partnership described in and which executed the foregoing instrument; and that he/she signed his/her name to the foregoing instrument as the duly authorized and binding act of said partnership.

Notary Public or Commissioner of Deeds.

ACKNOWLEDGMENT OF PRINCIPAL IF AN INDIVIDUAL

State of _____ County of _____ ss:

On this _____ day of _____, 20 _____ before me personally came _____, to me known, who, being by me duly sworn did depose and say that he/she resides at _____

_____ , and that he/she is the individual whose name is subscribed to the within instrument and acknowledged to me that by his/her signature on the instrument, said individual executed the instrument.

Notary Public or Commissioner of Deeds

Each executed bond should be accompanied by: (a) appropriate acknowledgments of the respective parties; (b) appropriate duly certified copy of Power of Attorney or other certificate of authority where bond is executed by agent, officer or other representative of Principal or Surety; (c) a duly certified extract from By-Laws or resolutions of Surety under which Power of Attorney or other certificate of authority of its agent, officer or representative was issued, and (d) certified copy of latest published financial statement of assets and liabilities of Surety.

Affix Acknowledgments and Justification of Sureties.

Performance Bond #2 (Pages 96 to 99): Use if the total contract price is more than \$5 Million.

PERFORMANCE BOND #2 (Page 1)

PERFORMANCE BOND #2

KNOW ALL PERSONS BY THESE PRESENTS:

That we, _____

hereinafter referred to as the "Principal,"

and, _____

hereinafter referred to as the "Surety" ("Sureties") are held and firmly bound to THE CITY OF NEW YORK, hereinafter referred to as the "City" or to its successors and assigns in the penal sum of _____

(\$ _____) Dollars, lawful money of the United States for the payment of which said sum of money well and truly to be made, we, and each of us, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal is about to enter, or has entered, into a Contract in writing with the City for

a copy of which Contract is annexed to and hereby made a part of this bond as though herein set forth in full;

NOW, THEREFORE, the conditions of this obligation are such that if the Principal, his or its representatives or assigns, shall well and faithfully perform the said Contract and all modifications, amendments, additions and alterations thereto that may hereafter be made, according to its terms and its true intent and meaning, including repair and or replacement of defective work and guarantees of maintenance for the periods stated in the Contract, and shall fully indemnify and save harmless the City from all cost and damage which it may suffer by reason of the Principal's default of the Contract, and shall fully reimburse and repay the City for all outlay and expense which the City may incur in making

Performance Bond #2 (Pages 96 to 99): Use if the total contract price is more than \$5 Million.

PERFORMANCE BOND #2 (Page 2)

good any such default and shall protect the said City of New York against, and pay any and all amounts, damages, cost and judgments which may or shall be recovered against said City or its officers or agents or which the said City of New York may be called upon to pay any person or corporation by reason of any damages arising or growing out of the Principal's default of the Contract, then this obligation shall be null and void, otherwise to remain in full force and effect.

The Surety (Sureties), for value received, hereby stipulates and agrees, upon written notice from the City that the City has determined that the Principal is in default of the Contract, to either (1) pay the full amount of the above penal sum in complete discharge and exoneration of this bond and of all the liabilities of the Surety relating to this bond, or (2) fully perform and complete the Work to be performed under the Contract, pursuant to the terms, conditions, and covenants thereof. The Surety (Sureties) further agrees, at its option, either to tender the penal sum or to commence and diligently perform the Work specified in the Contract, including physical site work, within twenty-five (25) business days after written notice thereof from the City and to complete all Work within the time set forth in the Contract or such other time as agreed to between the City and Surety in accordance with the Contract. The Surety and the City reserve all rights and defenses each may have against the other; provided, however, that the Surety expressly agrees that its reservation of rights shall not provide a basis for non-performance of its obligation to commence and to complete all Work as provided herein.

The Surety (Sureties), for value received, for itself and its successors and assigns, hereby stipulates and agrees that the obligation of said Surety (Sureties) and its bond shall be in no way impaired or affected by any extension of time, modification, omission, addition, or change in or to the said Contract or the Work to be performed thereunder, or by any payment thereunder before the time required therein, or by any waiver of any provisions thereof, or by any assignment, subletting or other transfer thereof or of any Work to be performed or any moneys due or to become due thereunder; and said Surety (Sureties) does hereby waive notice of any and all of such extensions, modifications, omissions, additions, changes, payments, waivers, assignments, subcontracts and transfers, and hereby expressly stipulates and agrees that any and all things done and omitted to be done by and in relation to assignees, subcontractors, and other transferees shall have the same effect as to said Surety (Sureties) as though done or omitted to be done by or in relation to said Principal.

Performance Bond #2 (Pages 96 to 99): Use if the total contract price is more than \$5 Million.

PERFORMANCE BOND #2 (Page 3)

IN WITNESS WHEREOF, The Principal and the Surety (Sureties) have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereunto affixed and these presents to be signed by their proper officers, this

_____ day of _____ 20____.

(Seal)

_____(L.S.)

Principal

By: _____

(Seal)

Surety

By: _____

(Seal)

Surety

By: _____

(Seal)

Surety

By: _____

(Seal)

Surety

By: _____

(Seal)

Surety

By: _____

Bond Premium Rate _____

Bond Premium Cost _____

If the Contractor (Principal) is a partnership, the bond should be signed by each of the individuals who are partners.

If the Contractor (Principal) is a corporation, the bond should be signed in its correct corporate name by a duly authorized officer, agent, or attorney-in-fact.

There should be executed an appropriate number of counterparts of the bond corresponding to the number of counterparts of the Contract.

Performance Bond #2 (Pages 96 to 99): Use if the total contract price is more than \$5 Million.

PERFORMANCE BOND #2 (Page 4)

ACKNOWLEDGMENT OF PRINCIPAL IF A CORPORATION

State of _____ County of _____ ss:

On this _____ day of _____, 20 _____ before me personally came _____, to me known, who, being by me duly sworn did depose and say that he resides at _____

_____ ; that he/she is the _____ of the corporation described in and which executed the foregoing instrument; that he/she signed his/her name to the foregoing instrument by order of the directors of said corporation as the duly authorized and binding act thereof.

Notary Public or Commissioner of Deeds.

ACKNOWLEDGMENT OF PRINCIPAL IF A PARTNERSHIP

State of _____ County of _____ ss:

On this _____ day of _____, 20 _____ before me personally came _____, to me known, who, being by me duly sworn did depose and say that he/she resides at _____

_____ ; that he/she is _____ partner of _____, a limited/general partnership existing under the laws of the State of _____, the partnership described in and which executed the foregoing instrument; and that he/she signed his/her name to the foregoing instrument as the duly authorized and binding act of said partnership.

Notary Public or Commissioner of Deeds

ACKNOWLEDGMENT OF PRINCIPAL IF AN INDIVIDUAL

State of _____ County of _____ ss:

On this _____ day of _____, 20 _____ before me personally came _____, to me known, who, being by me duly sworn did depose and say that he/she resides at _____

_____ , and that he/she is the individual whose name is subscribed to the within instrument and acknowledged to me that by his/her signature on the instrument, said individual executed the instrument.

Notary Public or Commissioner of Deeds

Each executed bond should be accompanied by: (a) appropriate acknowledgments of the respective parties; (b) appropriate duly certified copy of Power of Attorney or other certificate of authority where bond is executed by agent, officer or other representative of Principal or Surety; (c) a duly certified extract from By-Laws or resolutions of Surety under which Power of Attorney or other certificate of authority of its agent, officer or representative was issued, and (d) certified copy of latest published financial statement of assets and liabilities of Surety.

Affix Acknowledgments and Justification of Sureties.

Payment Bond (Pages 100 to 103): Use for any contract for which a Payment Bond is required.

PAYMENT BOND (Page 1)

PAYMENT BOND

KNOW ALL PERSONS BY THESE PRESENTS, That we, _____

hereinafter referred to as the "Principal", and _____

hereinafter referred to as the "Surety" ("Sureties") are held and firmly bound to THE CITY OF NEW YORK, hereinafter referred to as the "City" or to its successors and assigns, in the penal sum of

(\$ _____) Dollars, lawful money of the United States, for the payment of which said sum of money well and truly to be made, we, and each of us, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal is about to enter, or has entered, into a Contract in writing with the City for

a copy of which Contract is annexed to and hereby made a part of this bond as though herein set forth in full;

NOW, THEREFORE, the conditions of this obligation are such that if the Principal, his or its representatives or assigns and other Subcontractors to whom Work under this Contract is sublet and his or their successors and assigns shall promptly pay or cause to be paid all lawful claims for

(a) Wages and compensation for labor performed and services rendered by all persons engaged in the prosecution of the Work under said Contract, and any amendment or extension thereof or addition thereto, whether such persons be agents servants or employees of the Principal or any such Subcontractor, including all persons so engaged who perform the work of laborers or mechanics at or in the vicinity of the site

Payment Bond (Pages 100 to 103): Use for any contract for which a Payment Bond is required.

PAYMENT BOND (Page 2)

of the Project regardless of any contractual relationship between the Principal or such Subcontractors, or his or their successors or assigns, on the one hand and such laborers or mechanics on the other, but not including office employees not regularly stationed at the site of the project; and

(b) Materials and supplies (whether incorporated in the permanent structure or not), as well as teams, fuels, oils, implements or machinery furnished, used or consumed by said Principal or any subcontractor at or in the vicinity of the site of the Project in the prosecution of the Work under said Contract and any amendment or extension thereof or addition thereto; then this obligation shall be void, otherwise to remain in full force and effect.

This bond is subject to the following additional conditions, limitations and agreements:

(a) The Principal and Surety (Sureties) agree that this bond shall be for the benefit of any materialmen or laborer having a just claim, as well as the City itself.

(b) All persons who have performed labor, rendered services or furnished materials and supplies, as aforesaid, shall have a direct right of action against the Principal and his, its or their successors and assigns, and the Surety (Sureties) herein, or against either or both or any of them and their successors and assigns. Such persons may sue in their own name, and may prosecute the suit to judgment and execution without the necessity of joining with any other persons as party plaintiff.

(c) The Principal and Surety (Sureties) agree that neither of them will hold the City liable for any judgment for costs of otherwise, obtained by either or both of them against a laborer or materialman in a suit brought by either a laborer or materialman under this bond for moneys allegedly due for performing work or furnishing material.

(d) The Surety (Sureties) or its successors and assigns shall not be liable for any compensation recoverable by an employee or laborer under the Workmen's Compensation Law.

(e) In no event shall the Surety (Sureties), or its successors or assigns, be liable for a greater sum than the penalty of this bond or be subject to any suit, action or proceeding hereon that is instituted by any person, firm, or corporation hereunder later than two years after the complete performance of said Contract and final settlement thereof.

The Principal, for himself and his successors and assigns, and the Surety (Sureties), for itself and its successors and assigns, do hereby expressly waive any objection that might be interposed as to the right of the City to require a bond containing the foregoing provisions, and they do hereby further expressly waive any defense which they or either of them might interpose to an action brought hereon by any person, firm or corporation, including subcontractors, materialmen and third persons, for work, labor, services, supplies or material performed rendered, or furnished as aforesaid upon the ground that there is no law authorizing the City to require the foregoing provisions to be place in this bond.

And the Surety (Sureties), for value received, for itself and its successors and assigns, hereby stipulates and agrees that the obligation of said Surety (Sureties), and its bonds shall be in no way impaired or affected by any extension of time, modification, omission, addition, or change in or of the said Contract or the work to be performed thereunder, or by any payment thereunder before the time required therein, or by any waiver of any provisions thereof, or by any assignment, subletting or other transfer thereof or of any part thereof, or of any Work to be performed, or any moneys due to become due thereunder and said Surety (Sureties) does hereby waive notice of any and all of such extensions, modifications, omissions, additions, changes, payments, waivers, assignments, subcontracts and transfers, and hereby expressly stipulates and agrees that any and all things done and omitted to be done by and in relation to assignees, Subcontractors, and other transferees shall have the same effect as to said Surety (Sureties) as though done or omitted to be done or in relation to said Principal.

Payment Bond (Pages 100 to 103): Use for any contract for which a Payment Bond is required.

PAYMENT BOND (Page 3)

IN WITNESS WHEREOF, the Principal and the Surety (Sureties) have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereunto affixed and these presents to be signed by their proper officers, this _____ day of _____, _____.

(Seal) _____ (L.S.)
Principal

By: _____

(Seal) _____
Surety

By: _____

(Seal) _____
Surety

By: _____

(Seal) _____
Surety

By: _____

(Seal) _____
Surety

By: _____

If the Contractor (Principal) is a partnership, the bond should be signed by each of the individuals who are partners.

If the Contractor (Principal) is a corporation, the bond should be signed in its correct corporate name by a duly authorized officer, agent, or attorney-in-fact.

There should be executed an appropriate number of counterparts of the bond corresponding to the number of counterparts of the Contract.

Payment Bond (Pages 100 to 103): Use for any contract for which a Payment Bond is required.

PAYMENT BOND (Page 4)

ACKNOWLEDGMENT OF PRINCIPAL, IF A CORPORATION

State of _____ County of _____ ss:

On this ____ day of _____, _____, before me personally came _____ to me known, who, being by me duly sworn did depose and say that he resides at _____ that he is the _____ of the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that one of the seals affixed to said instrument is such seal; that it was so affixed by order of the directors of said corporation, and that he signed his name thereto by like order.

Notary Public or Commissioner of Deeds

ACKNOWLEDGMENT OF PRINCIPAL, IF A PARTNERSHIP

State of _____ County of _____ ss:

On this ____ day of _____, _____, before me personally appeared _____ to me known, and known to me to be one of the members of the firm of _____ described in and who executed the foregoing instrument; and he acknowledged to me that he executed the same as and for the act and deed of said firm.

Notary Public or Commissioner of Deeds

ACKNOWLEDGMENT OF PRINCIPAL, IF AN INDIVIDUAL

State of _____ County of _____ ss:

On this ____ day of _____, _____, before me personally appeared _____ to me known, and known to me to be the person described in and who executed the foregoing instrument; and acknowledged that he executed the same.

Notary Public or Commissioner of Deeds

Each executed bond should be accompanied by: (a) appropriate acknowledgments of the respective parties; (b) appropriate duly certified copy of Power of Attorney or other certificate of authority where bond is executed by agent, officer or other representative of Principal or Surety; (c) a duly certified extract from By-Laws or resolutions of Surety under which Power of Attorney or other certificate of authority of its agent, officer or representative was issued, and (d) certified copy of latest published financial statement of assets and liabilities of Surety.

Affix Acknowledgments and Justification of Sureties.

(NO TEXT ON THIS PAGE)

SCHEDULE OF WORKMEN, MECHANICS AND LABORERS

The following is a list of classifications for workmen, mechanics and laborers which are anticipated to be employed in the performance of work under this contract, followed by a schedule of the prevailing wage rates and supplemental benefits for all classifications as established by the Comptroller of the City of New York.

Request for interpretation or correction under Subsection A of Section No. 3 in the Information for Bidders includes all requests for clarification of the classification of trades to be employed in the performance of the work under this contract.

In the event that a trade not listed in the classification of trades required to be used at the time of the award of the contract is in fact employed during the performance of this contract, the Contractor shall be required to obtain from the agency the prevailing wage rates and supplementary benefits for the trades used and to complete the performance of this contract at the price at which the contract was awarded.

| <u>CODE</u> | <u>CLASSIFICATION</u> |
|-------------|---|
| 15 42 001 | Rigger |
| 15 42 002 | Sign Erector |
| 16 11 001 | Gardener |
| 16 11 002 | Tree Pruner |
| 16 11 003 | Tree Remover |
| 16 11 011 | Asphalt Raker (Highway & Paving) |
| 16 11 012 | Tamper (Highway & Paving) |
| 16 11 013 | Curbsetter (Highway & Paving) |
| 16 11 014 | Formsetter (Highway & Paving) |
| 16 11 015 | Rammerman (Highway & Paving) |
| 16 11 016 | Laborer (Highway & Paving) |
| 16 11 017 | ALL OTHER TITLES (Highway & Paving) |
| 16 23 001 | Laborer |
| 16 23 002 | Operating Engineer (Heavy Construction-Maintenance) |
| 16 23 003 | Junior Operating Engineer |
| 16 23 004 | Junior Operating Engineer |
| 16 23 005 | Junior Operating Engineer |
| 16 23 006 | Fireman (Heavy Construction) |
| 16 23 007 | Oiler (Heavy Construction) |
| 16 23 051 | Surveyor-Heavy Construction |
| 16 23 052 | Surveyor-Heavy Construction-Instrument Man |
| 16 23 053 | Surveyor-Heavy Construction-Rodman |
| 16 23 057 | Surveyor-Land Surveying-Party Chief |
| 16 23 058 | Surveyor-Land Surveying-Instrument Man |
| 16 23 059 | Surveyor-Land Surveying-Rodman |

| <u>CODE</u> | <u>CLASSIFICATION</u> |
|-------------|--|
| 16 23 061 | Operating Engineer-Road & Heavy Construction |
| 16 23 062 | Operating Engineer-Paving |
| 16 23 063 | Operating Engineer-Concrete |
| 16 23 071 | Teamster-Heavy Equipment Trailer Driver |
| 16 23 072 | Teamster-Dump Truck Driver |
| 16 23 073 | Teamster-Flat Bed Trailer Driver (3-Axle) |
| 16 23 074 | Teamster-Redi-Mix (Sand and Gravel) |
| 16 29 011 | Drill Runners |
| 17 11 001 | Plumbers |
| 17 21 001 | Painter (Brush & Roller) |
| 17 31 001 | Electrician |
| 17 41 001 | Bricklayer |
| 17 41 002 | Mason Tender |
| 17 41 004 | Cement Mason |
| 17 42 002 | Metallic Lather |
| 17 51 001 | Carpenter |
| 17 51 002 | Dock Builder |
| 17 71 001 | Cement & Concrete Worker |
| 17 91 001 | Structural Iron Worker |
| 17 95 001 | Barman |
| 17 96 021 | Derrickmen & Riggers |
| 17 99 001 | Ornamental Iron Worker |
| 17 99 002 | Sandblaster |
| 17 99 005 | Pointers (Waterproofer) |
| 17 99 011 | Welders |

Each classification may include trainees depending upon project staffing schedules and as required by the terms of this contract.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

LABOR LAW §220 PREVAILING WAGE SCHEDULE

Workers, Laborers and Mechanics employed on a public work project must receive not less than the prevailing rate of wage and benefits for the classification of work performed by each upon such public work. Pursuant to Labor Law §220 the Comptroller of the City of New York has promulgated this schedule solely for Workers, Laborers and Mechanics engaged by private contractors on New York City public work contracts.

This schedule is a compilation of separate determinations of the prevailing rate of wage and supplements made by the Comptroller for each trade classification listed herein pursuant to New York State Labor Law section 220 (5). The source of the wage and supplement rates, whether a collective bargaining agreement, survey data or other, is listed at the end of each classification.

Agency Chief Contracting Officers should contact the Bureau of Labor Law's Classification Unit with any questions concerning trade classifications, prevailing rates or prevailing practices with respect to procurement on New York City public works contracts. Contractors are advised to review the Comptroller's Prevailing Wage Schedule before bidding on public works contracts. Contractors with questions concerning trade classifications, prevailing rates or prevailing practices with respect to public works contracts in the procurement stage must contact the contracting agency responsible for the procurement.

Any error as to compensation under the prevailing wage law or other information as to trade classification, made by the contracting agency in the contract documents or in any other communication, will not preclude a finding against the contractor of prevailing wage violation.

Any questions concerning trade classifications, prevailing rates or prevailing practices on New York City public works contracts that have already been awarded may be directed to the Bureau of Labor Law's Classification Unit by calling (212) 669-7974. All callers must have the agency name and contract registration number available when calling with questions on public works contracts. Please direct all other compliance issues to: Bureau of Labor Law, Attn: Wasyl Kinach, P.E., Office of the Comptroller, 1 Centre Street, Room 1122, New York, N.Y. 10007; Fax (212) 669-4002.

The appropriate schedule of prevailing wages and benefits must be posted at all public work sites pursuant to Labor Law §220 (3-a) (a).

This schedule is applicable to work performed during the effective period, unless otherwise noted. Changes to this schedule are published on our web site www.comptroller.nyc.gov. Contractors must pay the wages and supplements in effect when the worker, laborer, mechanic performs the work. Preliminary schedules for future one-year periods appear in the City Record on or about June 1 each succeeding year. Final schedules appear on or about July 1 in the City Record and on our web site www.comptroller.nyc.gov.

The Comptroller's Office has attempted to include all overtime, shift and night differential, Holiday, Saturday, Sunday or other premium time work. However, this schedule does not set forth every prevailing practice with respect to such rates with which employers must comply. All such practices are nevertheless part of the employer's prevailing wage obligation and contained in the collective bargaining agreements of the prevailing wage unions. These collective bargaining agreements are available for inspection by appointment. Requests for appointments may be made by calling (212) 669-4443, Monday through Friday between the hours of 9 a.m. and 5 p.m.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Prevailing rates and ratios for apprentices are attached to this schedule in the Appendix. Pursuant to Labor Law §220 (3-e), only apprentices who are individually registered in a bona fide program to which the employer contractor is a participant, registered with the New York State Department of Labor, may be employed on a public work project. Workers who are not journey persons or not registered apprentices pursuant to Labor Law §220 (3-e) may not be substituted for apprentices and must be paid as journey persons.

Public Work construction, reconstruction, demolition, excavation, rehabilitation, repair, renovation, alteration, or improvement contracts awarded pursuant to a Project Labor Agreement ("PLA") in accordance with Labor Law section 222 may have different labor standards for shift, premium and overtime work. Please refer to the PLA's pre-negotiated labor agreements for wage and benefit rates applicable to work performed outside of the regular workday. More information is available at the Mayor's Office of Contract Services (MOCS) web page at <http://www.nyc.gov/html/mocs/html/vendors/pla.shtml>.

All the provisions of Labor Law section 220 remain applicable to PLA work including, but not limited to, the enforcement of prevailing wage requirements by the Comptroller; however, we will enforce shift, premium, overtime and other non-standard rates as they appear in a project's pre-negotiated labor agreement.

In order to meet their obligation to provide prevailing supplemental benefits to each covered employee, employers must either:

- 1) Provide bona-fide benefits which cost the employer no less than the prevailing supplemental benefits rate; or
- 2) Supplement the employee's hourly wage by an amount no less than the prevailing supplemental benefits rate; or
- 3) Provide a combination of bona-fide benefits and wage supplements which cost the employer no less than the prevailing supplemental benefits rate in total.

Particular attention should be given to the supplemental benefits requirement. Although in most instances the payment or provision for supplemental benefits is for each hour worked, some classifications require the payment or provision of supplemental benefits for each hour paid. Consequently, some prevailing practices require benefits to be purchased at the overtime, shift differential, Holiday, Saturday, Sunday or other premium time rate.

Benefits are paid for EACH HOUR WORKED unless otherwise noted.

Wasył Kinach, P.E.
Director of Classifications
Bureau of Labor Law

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

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OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

ASBESTOS HANDLER

(Hazardous Material; Disturbs, removes, encapsulates, repairs, or encloses friable asbestos material)

Asbestos Handler

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$36.00

Supplemental Benefit Rate per Hour: \$15.95

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Sunday.

Time and one half the regular hourly rate after 40 hours in any work week.

Overtime Holidays

Time and one half the regular rate for work on the following holiday(s).

New Year's Day

Good Friday

Memorial Day

Independence Day

Labor Day

Thanksgiving Day

Christmas Day

Easter

Paid Holidays

None

(Local #78 and Local #12A)

BLASTER

Blaster

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$46.89

Supplemental Benefit Rate per Hour: \$41.19

Blaster (Hydraulic)

Effective Period: 7/1/2015 - 6/30/2016

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Wage Rate per Hour: **\$47.71**
Supplemental Benefit Rate per Hour: **\$41.19**

Blaster - Trac Drill Hydraulic

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: **\$42.25**
Supplemental Benefit Rate per Hour: **\$41.19**

Blaster - Wagon: Air Trac: Quarry Bar: Drillrunners

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: **\$41.46**
Supplemental Benefit Rate per Hour: **\$41.19**

Blaster - Operators of Jack Hammers

Chippers: Spaders: Concrete Breakers: and all other pneumatic tools of like usage: Walk Behind Self Propelled Hydraulic Asphalt and Concrete Breakers: Hydro (Water) Demolition

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: **\$40.42**
Supplemental Benefit Rate per Hour: **\$41.19**

Blaster - Powder Carriers

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: **\$36.53**
Supplemental Benefit Rate per Hour: **\$41.19**

Blaster - Hydraulic Trac Drill Chuck Tender

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: **\$35.25**
Supplemental Benefit Rate per Hour: **\$41.19**

Blaster - Chuck Tender & Nipper

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: **\$34.50**
Supplemental Benefit Rate per Hour: **\$41.19**

Blaster - Magazine Keepers: (Watch Person)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: **\$20.68**
Supplemental Benefit Rate per Hour: **\$41.19**

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Overtime Description

Magazine Keepers:

Time and one half for work performed in excess of forty (40) hours per week and for work performed on Saturdays, Sundays and Holidays.

All Other Employees:

Time and one-half for the first eight hours of work on Saturday and for Make-up Time. Double time for all hours over eight Monday through Friday (except make-up hours) and for all hours worked on Sunday and Holidays.

Overtime

Double time the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Presidential Election Day

Thanksgiving Day

Christmas Day

Paid Holidays

None

Shift Rates

A single shift shall be 8 hours plus an unpaid lunch, starting at 8:00 A.M (or between 6:00 A.M. and 10:00 A.M. on weekdays). When two (2) shifts are employed, each shift shall be 8 hours plus ½ hour unpaid lunch. When three (3) shifts are employed, each shift will work seven and one-half (7 ½) hours, but will be paid for eight (8) hours, since only one-half (½) hour is allowed for mealtime. When two (2) or more shifts are employed, single time will be paid for each shift. The first 8 hours of any and all work performed Monday through Friday inclusive of any off-shift shall be at the single time rate.

(Local #29)

BOILERMAKER

Boilermaker

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$51.56

Supplemental Benefit Rate per Hour: \$41.69

Supplemental Note: For time and one half overtime - \$61.94 For double overtime - \$82.18

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Overtime Description

For Repair and Maintenance work:
Time and one half the regular rate after an 8 hour day.
Time and one half the regular rate for Saturday.
Double time the regular rate for Sunday.
For New Construction work:
Double time the regular rate after an 8 hour day.
Double time the regular time rate for Saturday.
Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).
New Year's Day
President's Day
Memorial Day
Independence Day
Columbus Day
Election Day
Veteran's Day
Thanksgiving Day
Christmas Day

Quadruple time the regular rate for work on the following holiday(s).
Labor Day

Paid Holidays

Good Friday
Day after Thanksgiving
Day before Christmas
Day before New Year's Day

Shift Rates

When shifts are required, the first shift shall work eight (8) hours at the regular straight-time hourly rate. The second shift shall work seven and one-half (7 ½) hours and receive eight hours at the regular straight time hourly rate plus twenty-five cents (\$0.25) per hour. The third shift shall work seven (7) hours and receive eight hours at the regular straight time hourly rate plus fifty cents (\$0.50) per hour. A thirty (30) minute lunch period shall not be considered as time worked. Work in excess of the above shall be paid overtime at the appropriate new construction work or repair work overtime wage and supplemental benefit hourly rate.

(Local #5)

BRICKLAYER

Bricklayer

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$48.91

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Supplemental Benefit Rate per Hour: \$28.03

Overtime

Time and one half the regular rate after a 7 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

Memorial Day

Independence Day

Labor Day

Thanksgiving Day

Christmas Day

Paid Holidays

None

Shift Rates

Overtime rates to be paid outside the regular scheduled work day.

(Bricklayer District Council)

CARPENTER - BUILDING COMMERCIAL

Building Commercial

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$50.50

Supplemental Benefit Rate per Hour: \$45.88

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

Washington's Birthday

Memorial Day

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Independence Day
Labor Day
Columbus Day
Presidential Election Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

Paid Holidays

None

Shift Rates

The second shift will receive one hour at the double time rate of pay for the last hour of the shift; eight hours pay for seven hours of work, nine hours pay for eight hours of work. There must be a first shift in order to work a second shift.

(Carpenters District Council)

CARPENTER - HEAVY CONSTRUCTION WORK
(Construction of Engineering Structures and Building Foundations)

Heavy Construction Work

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$50.50

Supplemental Benefit Rate per Hour: \$46.65

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Presidential Election Day

Thanksgiving Day

Christmas Day

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Paid Holidays

None

Shift Rates

Off shift work commencing between 5:00 P.M. and 11:00 P.M. shall work eight and one half hours allowing for one half hour for lunch. The wage rate shall be 113% of the straight time hourly wage rate.

(Carpenters District Council)

CARPENTER - SIDEWALK SHED, SCAFFOLD AND HOIST

Carpenter - Hod Hoist

(Assisted by Mason Tender)

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$49.60**

Supplemental Benefit Rate per Hour: **\$43.00**

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Presidential Election Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

Paid Holidays

None

Shift Rates

The second shift will receive one hour at the double time rate of pay for the last hour of the shift; eight hours pay for seven hours of work, nine hours pay for eight hours of work. There must be a first shift in order to work a second shift.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

(Carpenters District Council)

CEMENT & CONCRETE WORKER

Cement & Concrete Worker

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$42.48**

Supplemental Benefit Rate per Hour: **\$26.57**

Supplemental Note: \$29.32 on Saturdays; \$32.07 on Sundays & Holidays

Overtime Description

Time and one half the regular rate after 7 hour day (time and one half the regular rate after an 8 hour day when working with Dockbuilders on pile cap forms and for work below street level to the top of the foundation wall, not to exceed 2 feet or 3 feet above the sidewalk-brick shelf, when working on the foundation and structure.)

Overtime

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Good Friday

Memorial Day

Independence Day

Labor Day

Columbus Day

Presidential Election Day

Thanksgiving Day

Christmas Day

Paid Holidays

1/2 day before Christmas Day

1/2 day before New Year's Day

Shift Rates

On shift work extending over a twenty-four hour period, all shifts are paid at straight time.

(Cement Concrete Workers District Council)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

CEMENT MASON

Cement Mason

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$38.88**

Supplemental Benefit Rate per Hour: **\$39.80**

Supplemental Note: For time and one half overtime - \$49.05; For double overtime - \$58.30

Overtime Description

Time and one-half the regular rate after an 8 hour day, double time the regular rate after 10 hours. Time and one-half the regular rate on Saturday, double time the regular rate after 10 hours. Double time the regular rate on Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Good Friday

Memorial Day

Independence Day

Labor Day

Columbus Day

Presidential Election Day

Thanksgiving Day

Christmas Day

Paid Holidays

Any worker who reports to work on Christmas Eve or New Year's Eve pursuant to his employer's instruction shall be entitled to three (3) hours afternoon pay without working.

Shift Rates

For an off shift day, (work at times other than the regular 7:00 A.M. to 3:30 P.M. work day) a cement mason shall be paid at the regular hourly rate plus a 25% per hour differential. Four Days a week at Ten (10)hour day.

(Local #780)

CORE DRILLER

Core Driller

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$36.82**

Supplemental Benefit Rate per Hour: **\$22.69**

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Core Driller Helper

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$29.44
Supplemental Benefit Rate per Hour: \$22.69

Core Driller Helper(Third year in the industry)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$26.50
Supplemental Benefit Rate per Hour: \$22.69

Core Driller Helper (Second year in the industry)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$23.55
Supplemental Benefit Rate per Hour: \$22.69

Core Driller Helper (First year in the industry)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$20.61
Supplemental Benefit Rate per Hour: \$22.69

Overtime Description

Time and one half the regular rate for work on a holiday plus Holiday pay when worked.

Overtime

Time and one half the regular rate after an 8 hour day.
Time and one half the regular rate for Saturday.
Double time the regular rate for Sunday.
Time and one half the regular rate for work on the following holiday(s).

Paid Holidays

New Year's Day
Memorial Day
Independence Day
Labor Day
Thanksgiving Day
Christmas Day

Shift Rates

The shift day shall be the continuous eight and one-half (8½) hours from 6:00 A.M. to 2:30 P.M. and from 2:30 P.M. to 11:00 P.M., including one-half (½) hour of employees regular rate of pay for lunch. When two (2) or more shifts are employed, single time shall be paid for each shift, but those employees employed on a shift other than from 8:00 A.M. to 5:00 P.M. shall, in addition, receive seventy-five cents (\$0.75) per hour differential for each hour worked. When three (3) shifts are needed, each shift shall work seven and one-half (7 ½) hours paid for eight (8) hours of labor and be permitted one-half (½) hour for mealtime.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Carpenters District Council)

DERRICKPERSON AND RIGGER

Derrick Person & Rigger

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$44.84**

Supplemental Benefit Rate per Hour: **\$49.28**

Supplemental Note: The above supplemental rate applies for work performed in Manhattan, Bronx, Brooklyn and Queens. \$50.70 - For work performed in Staten Island.

Overtime Description

The first two hours of overtime on weekdays and the first seven hours of work on Saturdays are paid at time and one half for wages and supplemental benefits. All additional overtimes is paid at double time for wages and supplemental benefits. Deduct \$1.42 from the Staten Island hourly benefits rate before computing overtime.

Overtime

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day
Washington's Birthday
Good Friday
Memorial Day
Independence Day
Labor Day
Thanksgiving Day
Christmas Day

Paid Holidays

1/2 day on Christmas Eve if work is performed in the A.M.

(Local #197)

DIVER

Diver (Marine)

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$63.82**

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Supplemental Benefit Rate per Hour: **\$46.65**

Diver Tender (Marine)

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$45.47**

Supplemental Benefit Rate per Hour: **\$46.65**

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Presidential Election Day

Thanksgiving Day

Christmas Day

Paid Holidays

None

Shift Rates

When three shifts are utilized each shift shall work seven and one half-hours (7 1/2 hours) and paid for 8 hours, allowing for one half hour for lunch.

(Carpenters District Council)

DOCKBUILDER - PILE DRIVER

Dockbuilder - Pile Driver

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$50.50**

Supplemental Benefit Rate per Hour: **\$46.65**

Overtime

Time and one half the regular rate after an 8 hour day.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Presidential Election Day

Thanksgiving Day

Christmas Day

Paid Holidays

None

Shift Rates

Off shift work commencing between 5:00 P.M. and 11:00 P.M. shall work eight and one half hours allowing for one half hour for lunch. The wage rate shall be 113% of the straight time hourly wage rate.

(Carpenters District Council)

DRIVER: TRUCK (TEAMSTER)

Driver - Dump Truck

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$39.53**

Supplemental Benefit Rate per Hour: **\$41.59**

Supplemental Note: Over 40 hours worked: time and one half rate \$16.94, double time rate \$22.58

Driver - Tractor Trailer

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$39.50**

Supplemental Benefit Rate per Hour: **\$43.35**

Supplemental Note: For over 40 hours worked: at time and one half - \$16.65; at double time - \$22.20

Driver - Euclid & Turnapull Operator

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$40.06**

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Supplemental Benefit Rate per Hour: **\$43.35**

Supplemental Note: Over 40 hours worked: time and one half rate \$16.65 double time rate \$22.20

Overtime Description

For Paid Holidays: Holiday pay for all holidays shall be prorated based two hours per day for each day worked in the holiday week, not to exceed 8 hours of holiday pay. For Thanksgiving week, the prorated share shall be 5 1/3 hours of holiday pay for each day worked in Thanksgiving week.

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

Paid Holidays

New Year's Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

Shift Rates

Off single shift work commencing between 6:00 P.M. and 5:00 A.M. shall work eight and one half hours allowing for one half hour for lunch and receive 9 hours pay for 8 hours of work.

Driver Redi-Mix (Sand & Gravel)

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$36.30**

Supplemental Benefit Rate per Hour: **\$40.02**

Supplemental Note: Over 40 hours worked: time and one half rate \$13.90, double time rate \$18.53

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Overtime Description

For Paid Holidays: Employees working two (2) days in the calendar week in which the holiday falls are to be paid for these holidays, provided they shape each remaining workday during that calendar week.

Overtime

Time and one half the regular rate after an 8 hour day.
Time and one half the regular rate for Saturday.
Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

- President's Day
- Columbus Day
- Veteran's Day

Triple time the regular rate for work on the following holiday(s).

- New Year's Day
- Memorial Day
- Independence Day
- Labor Day
- Thanksgiving Day
- Christmas Day

Paid Holidays

- New Year's Day
- President's Day
- Memorial Day
- Independence Day
- Labor Day
- Columbus Day
- Election Day
- Thanksgiving Day
- Christmas Day

(Local #282)

ELECTRICIAN

(Including all low voltage cabling carrying data; video; and voice in combination with data and or video.)

Electrician "A" (Regular Day)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$54.00
Supplemental Benefit Rate per Hour: \$50.03

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
\$220 PREVAILING WAGE SCHEDULE

Electrician "A" (Regular Day Overtime)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$81.00
Supplemental Benefit Rate per Hour: \$53.41

Electrician "A" (Day Shift)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$54.00
Supplemental Benefit Rate per Hour: \$50.03

Electrician "A" (Day Shift Overtime After 8 hours)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$81.00
Supplemental Benefit Rate per Hour: \$53.41

Electrician "A" (Swing Shift)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$63.36
Supplemental Benefit Rate per Hour: \$56.94

Electrician "A" (Swing Shift Overtime After 7.5 hours)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$95.04
Supplemental Benefit Rate per Hour: \$60.91

Electrician "A" (Graveyard Shift)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$70.97
Supplemental Benefit Rate per Hour: \$62.78

Electrician "A" (Graveyard Shift Overtime After 7 hours)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$106.46
Supplemental Benefit Rate per Hour: \$67.23

Overtime

Time and one half the regular rate after a 7 hour day.
Time and one half the regular rate for Saturday.
Time and one half the regular rate for Sunday.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Overtime Holidays

Time and one half the regular rate for work on a holiday.

New Year's Day
Martin Luther King Jr. Day
President's Day
Memorial Day
Independence Day
Labor Day
Columbus Day
Veteran's Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

Paid Holidays

None

Shift Rates

When so elected by the Employer, one or more shifts of at least five days duration may be scheduled as follows:
Day Shift: 8:00 am to 4:30 pm, Swing Shift 4:30 pm to 12:30 am, Graveyard Shift: 12:30 am to 8:00 am.

For multiple shifts of temporary light and/or power, the temporary light and/or power employee shall be paid for 8 hours at the straight time rate. For three or less workers performing 8 hours temporary light and/or power the supplemental benefit rate is \$24.39.

Electrician "M" (First 8 hours)

"M" rated work shall be defined as jobbing: electrical work of limited duration and scope, also consisting of repairs and/or replacement of electrical and tele-data equipment. Includes all work necessary to retrofit, service, maintain and repair all kinds of lighting fixtures and local lighting controls and washing and cleaning of foregoing fixtures.

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$27.50

Supplemental Benefit Rate per Hour: \$20.82

First and Second Year "M" Wage Rate Per Hour: \$23.00

First and Second Year "M" Supplemental Rate: \$18.56

Electrician "M" (Overtime After First 8 hours)

"M" rated work shall be defined as jobbing: electrical work of limited duration and scope, also consisting of repairs and/or replacement of electrical and tele-data equipment. Includes all work necessary to retrofit, service, maintain and repair all kinds of lighting fixtures and local lighting controls and washing and cleaning of foregoing fixtures.

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$41.25

Supplemental Benefit Rate per Hour: \$22.54

First and Second Year "M" Wage Rate Per Hour: \$34.50

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
\$220 PREVAILING WAGE SCHEDULE

First and Second Year "M" Supplemental Rate: \$20.00

Overtime

Time and one half the regular rate after an 8 hour day.
Time and one half the regular rate for Saturday.
Time and one half the regular rate for Sunday.

Overtime Holidays

Time and one half the regular rate for work on the following holiday(s).

- New Year's Day
- Martin Luther King Jr. Day
- President's Day
- Memorial Day
- Independence Day
- Labor Day
- Columbus Day
- Veteran's Day
- Thanksgiving Day
- Day after Thanksgiving
- Christmas Day

Paid Holidays

None

(Local #3)

ELECTRICIAN - ALARM TECHNICIAN

(Scope of Work - Inspect, test, repair, and replace defective, malfunctioning, or broken devices, components and controls of Fire, Burglar and Security Systems)

Alarm Technician

Effective Period: 7/1/2015 - 3/9/2016
Wage Rate per Hour: \$31.40
Supplemental Benefit Rate per Hour: \$14.76
Supplemental Note: \$13.26 only after 8 hours worked in a day

Effective Period: 3/10/2016 - 6/30/2016
Wage Rate per Hour: \$32.00
Supplemental Benefit Rate per Hour: \$15.47
Supplemental Note: \$13.97 only after 8 hours worked in a day

Overtime Description

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Time and one half the regular rate for work on the following holidays: Columbus Day, Veterans Day, Day after Thanksgiving.

Double time the regular rate for work on the following holidays: New Year's day, Martin Luther King Jr. Day, President's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas Day.

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Paid Holidays

New Year's Day

Martin Luther King Jr. Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

Shift Rates

Night Differential is based upon a ten percent (10%) differential between the hours of 4:00 P.M. and 12:30 A.M. and a fifteen percent (15%) differential for the hours 12:00 A.M. to 8:00 A.M.

Vacation

At least 1 year of employment.....ten (10) days

5 years or more of employment.....fifteen (15) days

10 years of employment.....twenty (20) days

Plus one Personal Day per year

Sick Days:

One day per Year. Up to 4 vacation days may be used as sick days.

(Local #3)

ELECTRICIAN-STREET LIGHTING WORKER

Electrician - Electro Pole Electrician

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$54.00

Supplemental Benefit Rate per Hour: \$51.86

Electrician - Electro Pole Foundation Installer

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$40.93
Supplemental Benefit Rate per Hour: \$39.46

Electrician - Electro Pole Maintainer

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$35.05
Supplemental Benefit Rate per Hour: \$35.51

Overtime Description

Electrician - Electro Pole Electrician: Time and one half the regular rate after a 7 hour day and after 5 consecutive days worked per week.

Electrician - Electro Pole Foundation Installer: Time and one half the regular rate after 8 hours within a 24 hour period and Saturday and Sunday.

Electrician - Electro Pole Maintainer: Time and one half the regular rate after a 7 hour day and after 5 consecutive days worked per week. Saturdays and Sundays may be used as a make-up day at straight time when a day is lost during the week to inclement weather.

Overtime Holidays

Time and one half the regular rate for work on the following holiday(s).

New Year's Day
Martin Luther King Jr. Day
President's Day
Memorial Day
Independence Day
Labor Day
Columbus Day
Veteran's Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

Paid Holidays

None

(Local #3)

ELEVATOR CONSTRUCTOR

Elevator Constructor

Effective Period: 7/1/2015 - 3/16/2016
Wage Rate per Hour: \$59.55
Supplemental Benefit Rate per Hour: \$31.07

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Effective Period: 3/17/2016 - 6/30/2016

Wage Rate per Hour: \$60.96

Supplemental Benefit Rate per Hour: \$32.67

Overtime Description

For New Construction: work performed after 7 or 8 hour day, Saturday, Sunday or between 4:30pm and 7:00am shall be paid at double time rate.

Existing buildings: work performed after an 8 hour day, Saturday, Sunday or between 5:30pm and 7:00 am shall be paid time and one half.

Overtime

Double time the regular rate for work on the following holiday(s).

Paid Holidays

New Year's Day

President's Day

Good Friday

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

Vacation

Employer contributes 8% of regular basic hourly rate as vacation pay for employees with more than 15 years of service, and 6% for employees with 5 to 15 years of service, and 4% for employees with less than 5 years of service.

(Local #1)

ELEVATOR REPAIR & MAINTENANCE

Elevator Service/Modernization Mechanic

Effective Period: 7/1/2015 - 3/16/2016

Wage Rate per Hour: \$46.92

Supplemental Benefit Rate per Hour: \$30.91

Effective Period: 3/17/2016 - 6/30/2016

Wage Rate per Hour: \$47.91

Supplemental Benefit Rate per Hour: \$32.51

Overtime Description

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

For Scheduled Service Work: Double time - work scheduled in advance by two or more workers performed on Sundays, Holidays, and between midnight and 7:00am.

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Time and one half the regular rate for Sunday.

Time and one half the regular rate for work on a holiday plus the day's pay.

Paid Holidays

New Year's Day

President's Day

Good Friday

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

Shift Rates

Afternoon shift - regularly hourly rate plus a (15%) fifteen percent differential. Graveyard shift - time and one half the regular rate.

Vacation

Employer contributes 8% of regular basic hourly rate as vacation pay for employees with more than 15 years of service, and 6% for employees with 5 to 15 years of service, and 4% for employees with less than 5 years of service.

(Local #1)

ENGINEER

Engineer - Heavy Construction Operating Engineer I

Cherrypickers 20 tons and over and Loaders (rubber tired and/or tractor type with a manufacturer's minimum rated capacity of six cubic yards and over).

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$64.31

Supplemental Benefit Rate per Hour: \$34.25

Supplemental Note: \$61.60 on overtime

Shift Wage Rate: \$102.90

Engineer - Heavy Construction Operating Engineer II

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Backhoes, Basin Machines, Groover, Mechanical Sweepers, Bobcat, Boom Truck, Barrier Transport (Barrier Mover) & machines of similar nature. Operation of Churn Drills and machines of a similar nature, Stetco Silent Hoist and machines of similar nature, Vac-Alls, Meyers Machines, John Beam and machines of a similar nature, Ross Carriers and Travel Lifts and machines of a similar nature, Bulldozers, Scrapers and Turn-a-Pulls: Tugger Hoists (Used exclusively for handling excavated material); Tractors with attachments, Hyster and Roustabout Cranes, Cherrypickers. Austin Western, Grove and machines of a similar nature, Scoopmobiles, Monorails, Conveyors, Trenchers: Loaders-Rubber Tired and Tractor: Barber Greene and Eimco Loaders and Eimco Backhoes; Mighty Midget and similar breakers and Tampers, Curb and Gutter Pavers and Motor Patrol, Motor Graders and all machines of a similar nature. Locomotives 10 Tons or under. Mini-Max, Break-Tech and machines of a similar nature; Milling machines, robotic and demolition machines and machines of a similar nature, shot blaster, skid steer machines and machines of a similar nature including bobcat, pile rig rubber-tired excavator (37,000 lbs. and under), 2 man auger.

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$62.40**

Supplemental Benefit Rate per Hour: **\$34.25**

Supplemental Note: \$61.60 on overtime

Shift Wage Rate: **\$99.84**

Engineer - Heavy Construction Operating Engineer III

Minor Equipment such as Tractors, Post Hole Diggers, Ditch Witch (Walk Behind), Road Finishing Machines, Rollers five tons and under, Tugger Hoists, Dual Purpose Trucks, Fork Lifts, and Dempsey Dumpers, Fireperson.

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$59.20**

Supplemental Benefit Rate per Hour: **\$34.25**

Supplemental Note: \$61.60 on overtime

Shift Wage Rate: **\$94.72**

Engineer - Heavy Construction Maintenance Engineer I

Installing, Repairing, Maintaining, Dismantling and Manning of all equipment including Steel Cutting, Bending and Heat Sealing Machines, Mechanical Heaters, Grout Pumps, Bentonite Pumps & Plants, Screening Machines, Fusion Coupling Machines, Tunnel Boring Machines Moles and Machines of a similar nature, Power Packs, Mechanical Hydraulic Jacks; all drill rigs including but not limited to Churn, Rotary Caisson, Raised Bore & Drills of a similar nature; Personnel, Inspection & Safety Boats or any boats used to perform functions of same, Mine Hoists, Whirlies, all Climbing Cranes, all Tower Cranes, including but not limited to Truck Mounted and Crawler Type and machines of similar nature; Maintaining Hydraulic Drills and machines of a similar nature; Well Point System-Installation and dismantling; Burning, Welding, all Pumps regardless of size and/or motor power, except River Cofferdam Pumps and Wells Point Pumps; Motorized Buggies (three or more); equipment used in the cleaning and televising of sewers, but not limited to jet-rodder/vacuum truck, vacall/vactor, closed circuit television inspection equipment; high powered water pumps, jet pumps; screed machines and concrete finishing machines of a similar nature; vermeers.

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$62.11**

Supplemental Benefit Rate per Hour: **\$34.25**

Supplemental Note: \$61.60 on overtime

Shift Wage Rate: **\$99.38**

Engineer - Heavy Construction Maintenance Engineer II

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

On Base Mounted Tower Cranes

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: **\$81.54**
Supplemental Benefit Rate per Hour: **\$34.25**
Supplemental Note: \$61.60 on overtime
Shift Wage Rate: **\$130.46**

Engineer - Heavy Construction Maintenance Engineer III

On Generators, Light Towers

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: **\$41.04**
Supplemental Benefit Rate per Hour: **\$34.25**
Supplemental Note: \$61.60 on overtime
Shift Wage Rate: **\$65.66**

Engineer - Heavy Construction Maintenance Engineer IV

On Pumps and Mixers including mud sucking

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: **\$42.11**
Supplemental Benefit Rate per Hour: **\$34.25**
Supplemental Note: \$61.60 on overtime
Shift Wage Rate: **\$67.38**

Engineer - Heavy Construction Oilers I

Gradalls, Cold Planer Grader, Concrete Pumps, Driving Truck Cranes, Driving and Operating Fuel and Grease Trucks.

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: **\$56.02**
Supplemental Benefit Rate per Hour: **\$34.25**
Supplemental Note: \$61.60 on overtime
Shift Wage Rate: **\$89.63**

Engineer - Heavy Construction Oilers II

All gasoline, electric, diesel or air operated Shovels, Draglines, Backhoes, Keystones, Pavers, Gunite Machines, Battery of Compressors, Crawler Cranes, two-person Trenching Machines.

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: **\$38.79**
Supplemental Benefit Rate per Hour: **\$34.25**
Supplemental Note: \$61.60 on overtime
Shift Wage Rate: **\$62.06**

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Engineer - Steel Erection Maintenance Engineers

Derrick, Travelers, Tower, Crawler Tower and Climbing Cranes

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$59.77

Supplemental Benefit Rate per Hour: \$34.25

Supplemental Note: \$61.60 on overtime

Shift Wage Rate: \$95.63

Engineer - Steel Erection Oiler I

On a Truck Crane

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$55.95

Supplemental Benefit Rate per Hour: \$34.25

Supplemental Note: \$61.60 on overtime

Shift Wage Rate: \$89.52

Engineer - Steel Erection Oiler II

On a Crawler Crane

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$42.64

Supplemental Benefit Rate per Hour: \$34.25

Supplemental Note: \$61.60 on overtime

Shift Wage Rate: \$68.22

Overtime Description

On jobs of more than one shift, if the next shift employee fails to report for work through any cause over which the employer has no control, the employee on duty who works the next shift continues to work at the single time rate.

Overtime

Double time the regular rate after an 8 hour day.

Double time the regular time rate for Saturday.

Double time the regular rate for Sunday.

Double time the regular rate for work on the following holiday(s).

Paid Holidays

New Year's Day

Lincoln's Birthday

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Thanksgiving Day
Day after Thanksgiving
Christmas Day

Employees must work at least one day in the payroll week in which the holiday occurs to receive the paid holiday

Engineer - Building Work Maintenance Engineers I

Installing, repairing, maintaining, dismantling (of all equipment including: Steel Cutting and Bending Machines, Mechanical Heaters, Mine Hoists, Climbing Cranes, Tower Cranes, Linden Peine, Lorain, Liebherr, Mannes, or machines of a similar nature, Well Point Systems, Deep Well Pumps, Concrete Mixers with loading Device, Concrete Plants, Motor Generators when used for temporary power and lights), skid steer machines of a similar nature including bobcat.

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$56.88**

Supplemental Benefit Rate per Hour: **\$34.25**

Supplemental Note: \$61.60 on overtime

Engineer - Building Work Maintenance Engineers II

On Pumps, Generators, Mixers and Heaters

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$44.22**

Supplemental Benefit Rate per Hour: **\$34.25**

Supplemental Note: \$61.60 on overtime

Engineer - Building Work Oilers I

All gasoline, electric, diesel or air operated Gradealls: Concrete Pumps, Overhead Cranes in Power Houses: Their duties shall be to assist the Engineer in oiling, greasing and repairing of all machines; Driving Truck Cranes: Driving and Operating Fuel and Grease Trucks, Cherrypickers (hydraulic cranes) over 70,000 GVW, and machines of a similar nature.

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$54.08**

Supplemental Benefit Rate per Hour: **\$34.25**

Supplemental Note: \$61.60 on overtime

Engineer - Building Work Oilers II

Oilers on Crawler Cranes, Backhoes, Trenching Machines, Gunite Machines, Compressors (three or more in Battery).

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$40.21**

Supplemental Benefit Rate per Hour: **\$34.25**

Supplemental Note: \$61.60 on overtime

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Overtime Description

On jobs of more than one shift, if an Employee fails to report for work through any cause over which the Employer has no control, the Employee on duty will continue to work at the rate of single time.

Overtime

Double time the regular rate after an 8 hour day.
Double time the regular time rate for Saturday.
Double time the regular rate for Sunday.
Double time the regular rate for work on the following holiday(s).

Paid Holidays

New Year's Day
Lincoln's Birthday
President's Day
Memorial Day
Independence Day
Labor Day
Columbus Day
Veteran's Day
Thanksgiving Day
Christmas Day
Employees must work at least one day in the payroll week in which the holiday occurs to receive the paid holiday

Shift Rates

Off Shift: double time the regular hourly rate.

(Local #15)

ENGINEER - CITY SURVEYOR AND CONSULTANT

Party Chief

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$37.04
Supplemental Benefit Rate per Hour: \$18.60
Supplemental Note: Overtime Benefit Rate - \$25.45 per hour (time & one half) \$32.30 per hour (double time).

Instrument Person

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$30.59
Supplemental Benefit Rate per Hour: \$18.60
Supplemental Note: Overtime Benefit Rate - \$25.45 per hour (time & one half) \$32.30 per hour (double time).

Rodperson

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$26.52

Supplemental Benefit Rate per Hour: \$18.60

Supplemental Note: Overtime Benefit Rate - \$25.45 per hour (time & one half) \$32.30 per hour (double time).

Overtime Description

Time and one half the regular rate after an 8 hour day, Time and one half the regular rate for Saturday for the first eight hours worked, Double time the regular time rate for Saturday for work performed in excess of eight hours, Double time the regular rate for Sunday and Double time the regular rate for work on a holiday.

Paid Holidays

New Year's Day

Lincoln's Birthday

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

Employees must work at least one day in the payroll week in which the holiday occurs to receive the paid holiday

(Operating Engineer Local #15-D)

ENGINEER - FIELD (BUILDING CONSTRUCTION) (Construction of Building Projects, Concrete Superstructures, etc.)

Field Engineer - BC Party Chief

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$60.77

Supplemental Benefit Rate per Hour: \$32.40

Supplemental Note: Overtime Benefit Rate - \$45.28 per hour (time & one half) \$58.15 per hour (double time).

Field Engineer - BC Instrument Person

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$47.20

Supplemental Benefit Rate per Hour: \$32.40

Supplemental Note: Overtime Benefit Rate - \$45.28 per hour (time & one half) \$58.15 per hour (double time).

Field Engineer - BC Rodperson

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$30.49**

Supplemental Benefit Rate per Hour: **\$32.40**

Supplemental Note: Overtime Benefit Rate - \$45.28 per hour (time & one half) \$58.15 per hour (double time).

Overtime Description

Time and one half the regular rate after a 7 hour work and time and one half the regular rate for Saturday for the first seven hours worked, Double time the regular time rate for Saturday for work performed in excess of seven hours, Double time the regular rate for Sunday and Double time the regular rate for work on a holiday.

Paid Holidays

New Year's Day

President's Day

Good Friday

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Christmas Day

Employees must work at least one day in the payroll week in which the holiday occurs to receive the paid holiday

(Operating Engineer Local #15-D)

ENGINEER - FIELD (HEAVY CONSTRUCTION)

(Construction of Roads, Tunnels, Bridges, Sewers, Building Foundations, Engineering Structures etc.)

Field Engineer - HC Party Chief

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$66.43**

Supplemental Benefit Rate per Hour: **\$32.40**

Supplemental Note: Overtime benefit rate - \$45.28 per hour (time & one half), \$58.15 per hour (double time).

Field Engineer - HC Instrument Person

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$48.82**

Supplemental Benefit Rate per Hour: **\$32.40**

Supplemental Note: Overtime benefit rate - \$45.28 per hour (time & one half), \$58.15 per hour (double time).

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Field Engineer - HC Rodperson

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$40.99**

Supplemental Benefit Rate per Hour: **\$32.40**

Supplemental Note: Overtime benefit rate - \$45.28 per hour (time & one half), \$58.15 per hour (double time).

Overtime Description

Time and one half the regular rate after an 8 hour day, Time and one half the regular rate for Saturday for the first eight hours worked, Double time the regular time rate for Saturday for work performed in excess of eight hours, Double time the regular rate for Sunday and Double time the regular rate for work on a holiday.

Paid Holidays

New Year's Day

Lincoln's Birthday

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Christmas Day

Employees must work at least one day in the payroll week in which the holiday occurs to receive the paid holiday

(Operating Engineer Local #15-D)

ENGINEER - FIELD (STEEL ERECTION)

Field Engineer - Steel Erection Party Chief

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$62.26**

Supplemental Benefit Rate per Hour: **\$32.40**

Supplemental Note: Overtime benefit rate - \$45.28 per hour (time & one half), \$58.15 per hour (double time).

Field Engineer - Steel Erection Instrument Person

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$48.57**

Supplemental Benefit Rate per Hour: **\$32.40**

Supplemental Note: Overtime benefit rate - \$45.28 per hour (time & one half), \$58.15 per hour (double time).

Field Engineer - Steel Erection Rodperson

Effective Period: 7/1/2015 - 6/30/2016

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Wage Rate per Hour: **\$32.61**

Supplemental Benefit Rate per Hour: **\$32.40**

Supplemental Note: Overtime benefit rate - \$45.28 per hour (time & one half), \$58.15 per hour (double time).

Overtime Description

Time and one half the regular rate for Saturday for the first eight hours worked.

Double time the regular rate for Saturday for work performed in excess of eight hours.

Overtime

Time and one half the regular rate after an 8 hour day.

Double time the regular rate for Sunday.

Double time the regular rate for work on the following holiday(s).

Paid Holidays

New Year's Day

Lincoln's Birthday

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Christmas Day

Employees must work at least one day in the payroll week in which the holiday occurs to receive the paid holiday

(Operating Engineer Local #15-D)

ENGINEER - OPERATING

Operating Engineer - Road & Heavy Construction I

Back Filling Machines, Cranes, Mucking Machines and Dual Drum Paver.

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$71.75**

Supplemental Benefit Rate per Hour: **\$30.40**

Supplemental Note: \$55.10 overtime hours

Shift Wage Rate: **\$114.80**

Operating Engineer - Road & Heavy Construction II

Backhoes, Power Shovels, Hydraulic Clam Shells, Steel Erection, Moles and machines of a similar nature.

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$74.29**

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Supplemental Benefit Rate per Hour: **\$30.40**
Supplemental Note: **\$55.10** overtime hours
Shift Wage Rate: **\$118.86**

Operating Engineer - Road & Heavy Construction III

Mine Hoists, Cranes, etc. (Used as Mine Hoists)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: **\$76.67**
Supplemental Benefit Rate per Hour: **\$30.40**
Supplemental Note: **\$55.10** overtime hours
Shift Wage Rate: **\$122.67**

Operating Engineer - Road & Heavy Construction IV

Gradealls, Keystones, Cranes on land or water (with digging buckets), Bridge Cranes, Vermeer Cutter and machines of a similar nature, Trenching Machines.

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: **\$74.84**
Supplemental Benefit Rate per Hour: **\$30.40**
Supplemental Note: **\$55.10** overtime hours
Shift Wage Rate: **\$119.74**

Operating Engineer - Road & Heavy Construction V

Pile Drivers & Rigs (employing Dock Builder foreperson): Derrick Boats, Tunnel Shovels.

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: **\$73.36**
Supplemental Benefit Rate per Hour: **\$30.40**
Supplemental Note: **\$55.10** overtime hours
Shift Wage Rate: **\$117.38**

Operating Engineer - Road & Heavy Construction VI

Mixers (Concrete with loading attachment), Concrete Pavers, Cableways, Land Derricks, Power Houses (Low Air Pressure Units).

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: **\$69.69**
Supplemental Benefit Rate per Hour: **\$30.40**
Supplemental Note: **\$55.10** overtime hours
Shift Wage Rate: **\$111.50**

Operating Engineer - Road & Heavy Construction VII

Barrier Movers , Barrier Transport and Machines of a Similar Nature.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$56.25
Supplemental Benefit Rate per Hour: \$30.40
Supplemental Note: \$55.10 overtime hours
Shift Wage Rate: \$90.00

Operating Engineer - Road & Heavy Construction VIII

Utility Compressors

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$43.63
Supplemental Benefit Rate per Hour: \$30.40
Supplemental Note: \$55.10 overtime hours
Shift Wage Rate: \$55.03

Operating Engineer - Road & Heavy Construction IX

Horizontal Boring Rig

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$66.26
Supplemental Benefit Rate per Hour: \$30.40
Supplemental Note: \$55.10 overtime hours
Shift Wage Rate: \$106.02

Operating Engineer - Road & Heavy Construction X

Elevators (manually operated as personnel hoist).

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$60.89
Supplemental Benefit Rate per Hour: \$30.40
Supplemental Note: \$55.10 overtime hours
Shift Wage Rate: \$97.42

Operating Engineer - Road & Heavy Construction XI

Compressors (Portable 3 or more in battery), Driving of Truck Mounted Compressors, Well-point Pumps, Tugger Machines Well Point Pumps, Churn Drill.

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$47.28
Supplemental Benefit Rate per Hour: \$30.40
Supplemental Note: \$55.10 overtime hours
Shift Wage Rate: \$75.65

Operating Engineer - Road & Heavy Construction XII

All Drills and Machines of a similar nature.

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Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$70.42

Supplemental Benefit Rate per Hour: \$30.40

Supplemental Note: \$55.10 overtime hours

Shift Wage Rate: \$112.67

Operating Engineer - Road & Heavy Construction XIII

Concrete Pumps, Concrete Plant, Stone Crushers, Double Drum Hoist, Power Houses (other than above).

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$68.19

Supplemental Benefit Rate per Hour: \$30.40

Supplemental Note: \$55.10 overtime hours

Shift Wage Rate: \$109.10

Operating Engineer - Road & Heavy Construction XIV

Concrete Mixer

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$65.20

Supplemental Benefit Rate per Hour: \$30.40

Supplemental Note: \$55.10 overtime hours

Shift Wage Rate: \$104.32

Operating Engineer - Road & Heavy Construction XV

Compressors (Portable Single or two in Battery, not over 100 feet apart), Pumps (River Cofferdam) and Welding Machines, Push Button Machines, All Engines Irrespective of Power (Power-Pac) used to drive auxiliary equipment, Air, Hydraulic, etc.

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$43.91

Supplemental Benefit Rate per Hour: \$30.40

Supplemental Note: \$55.10 overtime hours

Shift Wage Rate: \$70.26

Operating Engineer - Road & Heavy Construction XVI

Concrete Breaking Machines, Hoists (Single Drum), Load Masters, Locomotives (over ten tons) and Dinkies over ten tons, Hydraulic Crane-Second Engineer.

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$62.25

Supplemental Benefit Rate per Hour: \$30.40

Supplemental Note: \$55.10 overtime hours

Shift Wage Rate: \$99.60

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Operating Engineer - Road & Heavy Construction XVII

On-Site concrete plant engineer, On-site Asphalt Plant Engineer, and Vibratory console.

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$62.74**

Supplemental Benefit Rate per Hour: **\$30.40**

Supplemental Note: **\$55.10** overtime hours

Shift Wage Rate: **\$100.38**

Operating Engineer - Road & Heavy Construction XVIII

Tower Crane

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$90.09**

Supplemental Benefit Rate per Hour: **\$30.40**

Supplemental Note: **\$55.10** overtime hours

Shift Wage Rate: **\$144.14**

Operating Engineer - Paving I

Asphalt Spreaders, Autogrades (C.M.I.), Roto/Mil

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$69.69**

Supplemental Benefit Rate per Hour: **\$30.40**

Supplemental Note: **\$55.10** overtime hours

Shift Wage Rate: **\$111.50**

Operating Engineer - Paving II

Asphalt Roller

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$67.87**

Supplemental Benefit Rate per Hour: **\$30.40**

Supplemental Note: **\$55.10** overtime hours

Shift Wage Rate: **\$108.59**

Operating Engineer - Paving III

Asphalt Plants

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$57.40**

Supplemental Benefit Rate per Hour: **\$30.40**

Supplemental Note: **\$55.10** overtime hours

Shift Wage Rate: **\$91.84**

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Operating Engineer - Concrete I

Cranes

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$74.51**

Supplemental Benefit Rate per Hour: **\$30.40**

Supplemental Note: \$55.10 overtime hours

Operating Engineer - Concrete II

Compressors

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$44.25**

Supplemental Benefit Rate per Hour: **\$30.40**

Supplemental Note: \$55.10 overtime hours

Operating Engineer - Concrete III

Micro-traps (Negative Air Machines), Vac-All Remediation System.

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$59.51**

Supplemental Benefit Rate per Hour: **\$30.40**

Supplemental Note: \$55.10 overtime hours

Operating Engineer - Steel Erection I

Three Drum Derricks

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$77.40**

Supplemental Benefit Rate per Hour: **\$30.40**

Supplemental Note: \$55.10 overtime hours

Shift Wage Rate: **\$123.84**

Operating Engineer - Steel Erection II

Cranes, 2 Drum Derricks, Hydraulic Cranes, Fork Lifts and Boom Trucks.

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$74.37**

Supplemental Benefit Rate per Hour: **\$30.40**

Supplemental Note: \$55.10 overtime hours

Shift Wage Rate: **\$118.99**

Operating Engineer - Steel Erection III

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Compressors, Welding Machines.

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$44.09**

Supplemental Benefit Rate per Hour: **\$30.40**

Supplemental Note: \$55.10 overtime hours

Shift Wage Rate: **\$70.54**

Operating Engineer - Steel Erection IV

Compressors - Not Combined with Welding Machine.

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$41.98**

Supplemental Benefit Rate per Hour: **\$30.40**

Supplemental Note: \$55.10 overtime hours

Shift Wage Rate: **\$67.17**

Operating Engineer - Building Work I

Forklifts, Plaster (Platform machine), Plaster Bucket, Concrete Pump and all other equipment used for hoisting material.

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$61.27**

Supplemental Benefit Rate per Hour: **\$30.40**

Supplemental Note: \$55.10 overtime hours

Operating Engineer - Building Work II

Compressors, Welding Machines (Cutting Concrete-Tank Work), Paint Spraying, Sandblasting, Pumps (with the exclusion of Concrete Pumps), All Engines irrespective of Power (Power-Pac) used to drive Auxiliary Equipment, Air, Hydraulic, Jacking System, etc.

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$45.85**

Supplemental Benefit Rate per Hour: **\$30.40**

Supplemental Note: \$55.10 overtime hours

Operating Engineer - Building Work III

Double Drum

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$69.76**

Supplemental Benefit Rate per Hour: **\$30.40**

Supplemental Note: \$55.10 overtime hours

Operating Engineer - Building Work IV

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Stone Derrick, Cranes, Hydraulic Cranes Boom Trucks.

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$73.91**

Supplemental Benefit Rate per Hour: **\$30.40**

Supplemental Note: \$55.10 overtime hours

Operating Engineer - Building Work V

Dismantling and Erection of Cranes, Relief Engineer.

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$68.09**

Supplemental Benefit Rate per Hour: **\$30.40**

Supplemental Note: \$55.10 overtime hours

Operating Engineer - Building Work VI

4 Pole Hoist, Single Drum Hoists.

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$67.37**

Supplemental Benefit Rate per Hour: **\$30.40**

Supplemental Note: \$55.10 overtime hours

Operating Engineer - Building Work VII

Rack & Pinion and House Cars

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$53.54**

Supplemental Benefit Rate per Hour: **\$30.40**

Supplemental Note: \$55.10 overtime hours

For New House Car projects Wage Rate per Hour **\$42.70**

Overtime Description

On jobs of more than one shift, if an Employee fails to report for work through any cause over which the Employer has no control, the Employee on duty will continue to work at the rate of single time.

For House Cars and Rack & Pinion only: Overtime paid at time and one-half for all hours in excess of eight hours in a day, Saturday, Sunday and Holidays worked.

Overtime

Double time the regular rate after an 8 hour day.

Double time the regular time rate for Saturday.

Double time the regular rate for Sunday.

Double time the regular rate for work on the following holiday(s).

Paid Holidays

New Year's Day

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Lincoln's Birthday
President's Day
Memorial Day
Independence Day
Labor Day
Columbus Day
Veteran's Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

Employees must work at least one day in the payroll week in which the holiday occurs to receive the paid holiday

Shift Rates

For Steel Erection Only: Shifts may be worked at the single time rate at other than the regular working hours (8:00 A.M. to 4:30 P.M.) on the following work ONLY: Heavy construction jobs on work below the street level, over railroad tracks and on building jobs.

(Operating Engineer Local #14)

FLOOR COVERER

(Interior vinyl composition tile, sheath vinyl linoleum and wood parquet tile including site preparation and synthetic turf not including site preparation)

Floor Coverer

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$50.50

Supplemental Benefit Rate per Hour: \$45.88

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Presidential Election Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
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Paid Holidays

1/2 day on Christmas Eve if work is performed in the A.M.

1/2 day on New Year's Eve if work is performed in the A.M.

Shift Rates

Two shifts may be utilized with the first shift working 8:00 A.M. to the end of the shift at the straight time of pay. The second shift will receive one hour at double time rate for the last hour of the shift. (eight for seven, nine for eight).

(Carpenters District Council)

GLAZIER

(New Construction, Remodeling, and Alteration)

Glazier

Effective Period: 7/1/2015 - 10/31/2015

Wage Rate per Hour: **\$43.35**

Supplemental Benefit Rate per Hour: **\$36.59**

Supplemental Note: Supplemental Benefit Overtime Rate: **\$45.34**

Effective Period: 11/1/2015 - 6/30/2016

Wage Rate per Hour: **\$43.95**

Supplemental Benefit Rate per Hour: **\$36.84**

Supplemental Note: Supplemental Benefit Overtime Rate: **\$45.59**

Overtime Description

An optional 8th hour can be worked at straight time rate. If 9th hour is worked, then both hours or more (8th & 9th or more) will be at the double time rate of pay.

Overtime

Double time the regular rate after a 7 hour day.

Double time the regular time rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Memorial Day

Independence Day

Labor Day

Thanksgiving Day

Day after Thanksgiving

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Christmas Day

Paid Holidays

None

Shift Rates

Shifts shall be any 7 hours beyond 4:00 P.M. for which the glazier shall receive 8 hours pay for 7 hours worked.

(Local #1281)

GLAZIER - REPAIR & MAINTENANCE

(For the Installation of Glass - All repair and maintenance work on a particular building, whenever performed, where the total cumulative contract value is under \$105,000. Except where enumerated (i.e. plate glass windows) does not apply to non-residential buildings.)

Craft Jurisdiction for repair, maintenance and fabrication

Plate glass replacement, Residential glass replacement, Residential mirrors and shower doors, Storm windows and storm doors, Residential replacement windows, Herculite door repairs, Door closer repairs, Retrofit apartment house (non commercial buildings), Glass tinting.

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$23.68**

Supplemental Benefit Rate per Hour: **\$19.54**

Overtime

Time and one half the regular rate after an 8 hour day.

Double time the regular rate for Sunday.

Time and one half the regular hourly rate after 40 hours in any work week.

Paid Holidays

New Year's Day

President's Day

Memorial Day

Independence Day

Labor Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

(Local #1281)

HEAT AND FROST INSULATOR

Heat & Frost Insulator

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$57.38

Supplemental Benefit Rate per Hour: \$37.41

Overtime Description

Double time shall be paid for supplemental benefits during overtime work.
8th hour paid at time and one half.

Overtime

Double time the regular rate after an 8 hour day.

Double time the regular time rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

Martin Luther King Jr. Day

President's Day

Memorial Day

Independence Day

Columbus Day

Veteran's Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

Triple time the regular rate for work on the following holiday(s).

Labor Day

Paid Holidays

None

Shift Rates

The first shift shall work seven hours at the regular straight time rate. The second and third shift shall work seven hours the regular straight time hourly rate plus a fourteen percent wage and benefit premium.

Off hour work in occupied or retail buildings may be worked on weekdays with an increment of \$1.00 per hour and eight hours pay for seven (7) hours worked. Double time will apply for over seven (7) hours worked on weekdays, weekends or holidays.

(Local #12)

HOUSE WRECKER (TOTAL DEMOLITION)

House Wrecker - Tier A

On all work sites the first, second, eleventh and every third House Wrecker thereafter will be Tier A House Wreckers (i.e. 1st, 2nd, 11th, 14th etc). Other House Wreckers may be Tier B House Wreckers.

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$35.52**

Supplemental Benefit Rate per Hour: **\$26.86**

House Wrecker - Tier B

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$24.90**

Supplemental Benefit Rate per Hour: **\$19.88**

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Memorial Day

Independence Day

Labor Day

Thanksgiving Day

Christmas Day

Paid Holidays

None

(Mason Tenders District Council)

IRON WORKER - ORNAMENTAL

Iron Worker - Ornamental

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$43.20**

Supplemental Benefit Rate per Hour: **\$47.67**

Supplemental Note: Supplemental benefits are to be paid at the applicable overtime rate when overtime is in effect.

Overtime Description

Time and one half the regular rate after a 7 hour day for a maximum of two hours on any regular work day (the 8th and 9th hour) and double time shall be paid for all work on a regular work day thereafter, time and one half the regular rate for Saturday for the first seven hours of work and double time shall be paid for all work on a Saturday thereafter.

Overtime

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Memorial Day

Independence Day

Labor Day

Thanksgiving Day

Christmas Day

Paid Holidays

None

Shift Rates

For off shift work - 8 hours pay for 7 hours of work. When two or three shifts are employed on a job, Monday through Friday, the workday for each shift shall be seven hours and paid for ten and one-half hours at the single time rate. When two or three shifts are worked on Saturday, Sunday or holidays, each shift shall be seven hours and paid fifteen and three-quarters hours.

(Local #580)

IRON WORKER - STRUCTURAL

Iron Worker - Structural

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$48.75**

Supplemental Benefit Rate per Hour: **\$67.34**

Supplemental Note: Supplemental benefits are to be paid at the applicable overtime rate when overtime is in effect.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Overtime Description

Monday through Friday- the first eight hours are paid at straight time, the 9th and 10th hours are paid at time and one-half the regular rate, all additional weekday overtime is paid at double the regular rate. Saturdays- the first eight hours are paid at time and one-half the regular rate, double time thereafter. Sunday-all shifts are paid at double time.

Overtime

Time and one half the regular rate after an 8 hour day.
Time and one half the regular rate for Saturday.
Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day
Good Friday
Memorial Day
Independence Day
Labor Day
Thanksgiving Day
Christmas Day

Paid Holidays

1/2 day on Christmas Eve if work is performed in the A.M.
1/2 day on New Year's Eve if work is performed in the A.M.

Shift Rates

Monday through Friday - First Shift: First eight hours are paid at straight time, the 9th & 10th hours are paid at time and a half, double time paid thereafter. Second and third Shifts: First eight hours are paid at time and one-half, double time thereafter. Saturdays: All shifts, first eight hours paid at time and one-half, double time thereafter: Sunday all shifts are paid at double time.

(Local #40 & #361)

LABORER

(Foundation, Concrete, Excavating, Street Pipe Layer and Common)

Laborer

Excavation and foundation work for buildings, heavy construction, engineering work, and hazardous waste removal in connection with the above work. Landscaping tasks in connection with heavy construction work, engineering work and building projects. Projects include, but are not limited to pollution plants, sewers, parks, subways, bridges, highways, etc.

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$40.50

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Supplemental Benefit Rate per Hour: \$36.53

Overtime

Time and one half the regular rate after an 8 hour day.
Time and one half the regular rate for Saturday.
Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day
Memorial Day
Independence Day
Labor Day
Columbus Day
Presidential Election Day
Thanksgiving Day
Christmas Day

Paid Holidays

Labor Day
Thanksgiving Day

Shift Rates

When two shifts are employed, single time rate shall be paid for each shift. When three shifts are found necessary, each shift shall work seven and one half hours (7 ½), but shall be paid for eight (8) hours of labor, and be permitted one half hour for lunch.

(Local #731)

LANDSCAPING

(Landscaping tasks, as well as tree pruning, tree removing, spraying and maintenance in connection with the planting of street trees and the planting of trees in city parks but not when such activities are performed as part of, or in connection with, other construction or reconstruction projects.)

Landscaper (Above 6 years experience)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$27.00
Supplemental Benefit Rate per Hour: \$14.55

Landscaper (3 - 6 years experience)

Effective Period: 7/1/2015 - 6/30/2016

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Wage Rate per Hour: \$26.00
Supplemental Benefit Rate per Hour: \$14.55

Landscaper (up to 3 years experience)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$23.50
Supplemental Benefit Rate per Hour: \$14.55

Groundperson

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$23.50
Supplemental Benefit Rate per Hour: \$14.55

Tree Remover / Pruner

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$32.00
Supplemental Benefit Rate per Hour: \$14.55

Landscaper Sprayer (Pesticide Applicator)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$22.00
Supplemental Benefit Rate per Hour: \$14.55

Watering - Plant Maintainer

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$17.00
Supplemental Benefit Rate per Hour: \$14.55

Overtime Description

For all overtime work performed, supplemental benefits shall include an additional seventy-five (\$0.75) cents per hour.

Overtime

Time and one half the regular rate after an 8 hour day.
Time and one half the regular rate for Saturday.
Double time the regular rate for Sunday.
Time and one half the regular rate for work on a holiday plus the day's pay.

Paid Holidays

New Year's Day
Memorial Day
Independence Day
Labor Day
Thanksgiving Day

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Christmas Day

Shift Rates

Work performed on a 4pm to 12am shift has a 15% differential. Work performed on a 12am to 8am shift has a 20% differential.

(Local #175)

MARBLE MECHANIC

Marble Setter

Effective Period: 7/1/2015 - 12/31/2015

Wage Rate per Hour: **\$51.53**

Supplemental Benefit Rate per Hour: **\$35.73**

Effective Period: 1/1/2016 - 6/30/2016

Wage Rate per Hour: **\$51.89**

Supplemental Benefit Rate per Hour: **\$36.62**

Marble Finisher

Effective Period: 7/1/2015 - 12/31/2015

Wage Rate per Hour: **\$40.53**

Supplemental Benefit Rate per Hour: **\$34.52**

Effective Period: 1/1/2016 - 6/30/2016

Wage Rate per Hour: **\$40.80**

Supplemental Benefit Rate per Hour: **\$35.15**

Marble Polisher

Effective Period: 7/1/2015 - 12/31/2015

Wage Rate per Hour: **\$36.65**

Supplemental Benefit Rate per Hour: **\$26.63**

Effective Period: 1/1/2016 - 6/30/2016

Wage Rate per Hour: **\$37.02**

Supplemental Benefit Rate per Hour: **\$27.01**

Overtime Description

Supplemental Benefit contributions are to be made at the applicable overtime rates. Time and one half the regular rate after a 7 hour day or time and one half the regular rate after an 8 hour day - chosen by Employer at the start of the project and then would last for the full duration of the project.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Overtime

Time and one half the regular rate for Saturday.
Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day
President's Day
Good Friday
Memorial Day
Independence Day
Labor Day
Columbus Day
Veteran's Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

Paid Holidays

None

(Local #7)

MASON TENDER

Mason Tender

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$36.67**

Supplemental Benefit Rate per Hour: **\$28.02**

Overtime

Time and one half the regular rate after an 8 hour day.
Time and one half the regular rate for Saturday.
Double time the regular rate for Sunday.
Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day
President's Day
Memorial Day
Independence Day
Labor Day
Thanksgiving Day
Christmas Day

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Paid Holidays

None

Shift Rates

The Employer may work two (2) shifts with the first shift at the straight time wage rate and the second shift receiving eight (8) hours paid for seven (7) hours work at the straight time wage rate.

(Local #79)

MASON TENDER (INTERIOR DEMOLITION WORKER)

(The erection, building, moving, servicing and dismantling of enclosures, scaffolding, barricades, protection and site safety structures etc., on Interior Demolition jobs.)

Mason Tender Tier A

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$35.46

Supplemental Benefit Rate per Hour: \$22.13

Mason Tender Tier B

On Interior Demolition job sites 33 1/3 % of the employees shall be classified as Tier A Interior Demolition Workers and 66 2/3 % shall be classified as Tier B Interior Demolition Workers; provided that the employer may employ more than 33 1/3 % Tier A Interior Demolition Workers on the job site. Where the number of employees on a job site is not divisible by 3, the first additional employee (above the number of employees divisible by three) shall be a Tier B Interior Demolition Worker, and the second additional employee shall be a Tier A Interior Demolition Worker.

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$24.65

Supplemental Benefit Rate per Hour: \$16.45

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Memorial Day

Independence Day

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§220 PREVAILING WAGE SCHEDULE

Labor Day
Thanksgiving Day
Christmas Day

Paid Holidays

None

(Local #79)

METALLIC LATHER

Metallic Lather

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$43.63**

Supplemental Benefit Rate per Hour: **\$41.57**

Supplemental Note: Supplemental benefits for overtime are paid at the appropriate overtime rate.

Overtime Description

Overtime would be time and one half the regular rate after a seven (7) or eight (8) hours workday, which would be set at the start of the job.

Overtime

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

Washington's Birthday

Good Friday

Memorial Day

Independence Day

Labor Day

Columbus Day

Presidential Election Day

Thanksgiving Day

Christmas Day

Paid Holidays

1/2 day on Christmas Eve if work is performed in the A.M.

1/2 day on New Year's Eve if work is performed in the A.M.

Shift Rates

There shall be either two (2) or three (3) shifts, each shift shall be eight (8) hours with nine (9) hours pay, including one half (1/2) hour for lunch. Off-Hour Start shall commence after 3:30 P.M. and shall conclude by 6:00

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

A.M. The first consecutive seven (7) hours shall be at straight time with a differential of twelve dollars (\$12.00) per hour. Fringes shall be paid at the straight time rate.

(Local #46)

MILLWRIGHT

Millwright

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$49.50

Supplemental Benefit Rate per Hour: \$52.01

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Good Friday

Memorial Day

Independence Day

Labor Day

Columbus Day

Presidential Election Day

Thanksgiving Day

Christmas Day

Paid Holidays

1/2 day on Christmas Eve if work is performed in the A.M.

1/2 day on New Year's Eve if work is performed in the A.M.

Shift Rates

The first shift shall receive the straight time rate of pay. The second shift receives the straight time rate of pay plus fifteen (15%) per cent. Members of the second shift shall be allowed one half hour to eat, with this time being included in the hours of the workday established. There must be a first shift to work a second shift. All additional hours worked shall be paid at the time and one-half rate of pay plus fifteen (15%) per cent for weekday hours.

(Local #740)

MOSAIC MECHANIC

Mosaic Mechanic - Mosaic & Terrazzo Mechanic

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$45.91**

Supplemental Benefit Rate per Hour: **\$38.15**

Supplemental Note: Supplemental benefits for overtime to be paid at the rate of \$48.92 per hour.

Mosaic Mechanic - Mosaic & Terrazzo Finisher

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$44.30**

Supplemental Benefit Rate per Hour: **\$38.14**

Supplemental Note: Supplemental benefits for overtime to be paid at the rate of \$48.91 per hour.

Mosaic Mechanic - Machine Operator Grinder

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$44.30**

Supplemental Benefit Rate per Hour: **\$38.14**

Supplemental Note: Supplemental benefits for overtime to be paid at the rate of \$48.91 per hour.

Overtime

Time and one half the regular rate after a 7 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

Washington's Birthday

Good Friday

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

Paid Holidays

None

(Local #7)

PAINTER

Painter - Brush & Roller

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$41.00**

Supplemental Benefit Rate per Hour: **\$26.37**

Supplemental Note: \$31.00 on overtime

Spray & Scaffold / Decorative / Sandblast

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$44.00**

Supplemental Benefit Rate per Hour: **\$26.37**

Supplemental Note: \$31.00 on overtime

Overtime

Time and one half the regular rate after a 7 hour day.

Time and one half the regular rate for Saturday.

Time and one half the regular rate for Sunday.

Overtime Holidays

Time and one half the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Thanksgiving Day

Christmas Day

Paid Holidays

None

(District Council of Painters #9)

PAINTER - SIGN

Designer

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
\$220 PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$40.30
Supplemental Benefit Rate per Hour: \$7.22

Journey person

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$37.48
Supplemental Benefit Rate per Hour: \$7.22

Overtime

Time and one half the regular rate after an 8 hour day.
Time and one half the regular rate for Saturday.
Time and one half the regular rate for Sunday.
Double time the regular rate for work on the following holiday(s).

Paid Holidays

New Year's Day
Martin Luther King Jr. Day
Memorial Day
Independence Day
Labor Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day
Two (2) additional holidays as floating holidays

(Local #8A-28A)

PAINTER - STRIPER

Striper (paint)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$35.00
Supplemental Benefit Rate per Hour: \$12.27
Supplemental Note: Overtime Supplemental Benefit rate - \$8.02 New Hire Rate (0-3 months) - \$0.00

Line person (thermoplastic)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$39.00
Supplemental Benefit Rate per Hour: \$12.27
Supplemental Note: Overtime Supplemental Benefit rate - \$8.02; New Hire Rate (0-3 months) - \$0.00

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§220 PREVAILING WAGE SCHEDULE

Overtime

Time and one half the regular rate after an 8 hour day.
Time and one half the regular rate for Saturday.
Double time the regular rate for Sunday.
Time and one half the regular rate for work on the following holiday(s).

Paid Holidays

New Year's Day
Good Friday
Memorial Day
Independence Day
Labor Day
Columbus Day
Presidential Election Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

Shift Rates

Employees hired before April 1, 2003: 15% night shift premium differential for work commenced at 9:00 PM or later.

Vacation

Employees with one to two years service shall accrue vacation based on hours worked: 250 hours worked - 1 day vacation; 500 hours worked - 2 days vacation; 750 hours worked - 3 days vacation; 900 hours worked - 4 days vacation; 1,000 hours worked - 5 days vacation. Employees with two to five years service receive two weeks vacation. Employees with five to twenty years service receive three weeks vacation. Employees with twenty to twenty-five years service receive four weeks vacation. Employees with 25 or more years service receive five weeks vacation. Vacation must be taken during winter months. 2 Personal Days except employees hired after 4/1/12 who do not have 2 years of service.

(Local #917)

PAINTER - STRUCTURAL STEEL

Painters on Structural Steel

Effective Period: 7/1/2015 - 9/30/2015

Wage Rate per Hour: **\$48.00**

Supplemental Benefit Rate per Hour: **\$34.58**

Effective Period: 10/1/2015 - 6/30/2016

Wage Rate per Hour: **\$49.00**

Supplemental Benefit Rate per Hour: **\$36.08**

Painter - Power Tool

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
\$220 PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2015 - 9/30/2015

Wage Rate per Hour: \$54.00

Supplemental Benefit Rate per Hour: \$34.58

Effective Period: 10/1/2015 - 6/30/2016

Wage Rate per Hour: \$55.00

Supplemental Benefit Rate per Hour: \$36.08

Overtime Description

Supplemental Benefits shall be paid for each hour worked, up to forty (40) hours per week for the period of May 1st to November 15th or up to fifty (50) hours per week for the period of November 16th to April 30th.

Overtime

Time and one half the regular rate after a 7 hour day.

Time and one half the regular rate for Saturday.

Time and one half the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

Memorial Day

Independence Day

Labor Day

Thanksgiving Day

Christmas Day

Paid Holidays

None

Shift Rates

Regular hourly rates plus a ten per cent (10%) differential

(Local #806)

PAPERHANGER

Paperhanger

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$41.08

Supplemental Benefit Rate per Hour: \$29.23

Supplemental Note: Supplemental benefits are to be paid at the appropriate straight time and overtime rate.

Overtime

Time and one half the regular rate after a 7 hour day.

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§220 PREVAILING WAGE SCHEDULE

Time and one half the regular rate for Saturday.
Time and one half the regular rate for Sunday.

Overtime Holidays

Time and one half the regular rate for work on the following holiday(s).

New Year's Day
President's Day
Memorial Day
Independence Day
Labor Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

Paid Holidays

None

Shift Rates

Evening shift - 4:30 P.M. to 12:00 Midnight (regular rate of pay); any work performed before 7:00 A.M. shall be at time and one half the regular base rate of pay.

(District Council of Painters #9)

PAVER AND ROADBUILDER

Paver & Roadbuilder - Formsetter

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$44.85**

Supplemental Benefit Rate per Hour: **\$36.92**

Paver & Roadbuilder - Laborer

Paving and road construction work, regardless of material used, including but not limited to preparation of job sites, removal of old surfaces, asphalt and/or concrete, by whatever method, including but not limited to milling; laying of concrete; laying of asphalt for temporary, patchwork, and utility paving (but not production paving); site preparation and incidental work before the installation of rubberized materials and similar surfaces; installation and repair of temporary construction fencing; slurry seal coating, maintenance of safety surfaces; play equipment installation, and other related work.

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$40.98**

Supplemental Benefit Rate per Hour: **\$36.92**

Production Paver & Roadbuilder - Screed Person

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§220 PREVAILING WAGE SCHEDULE

Production paving is asphalt paving when using a paving machine or on a project where a paving machine is traditionally used)

Adjustment of paving machinery on production paving jobs.

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$45.45**

Supplemental Benefit Rate per Hour: **\$36.92**

Production Paver & Roadbuilder - Raker

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$44.85**

Supplemental Benefit Rate per Hour: **\$36.92**

Production Paver & Roadbuilder - Shoveler

General laborer (except removal of surfaces - see Paver and Roadbuilder-Laborer) including but not limited to tamper, AC paint and liquid tar work.

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$41.56**

Supplemental Benefit Rate per Hour: **\$36.92**

Overtime Description

Veteran's Day is a Paid Holiday for employees working on production paving.

If an employee works New Year's Day or Christmas Day, they receive the single time rate plus 25%.

Employees who work on a holiday listed below receive the straight time rate plus one day's pay for the holiday.

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Paid Holidays

Memorial Day

Independence Day

Labor Day

Presidential Election Day

Thanksgiving Day

Shift Rates

When two shifts are employed, the work period for each shift shall be a continuous eight (8) hours. When three shifts are employed, each shift will work seven and one half (7 ½) hours but will be paid for eight (8) hours since only one half (1/2) hour is allowed for meal time.

When two or more shifts are employed, single time will be paid for each shift.

Night Work - On night work, the first eight (8) hours of work will be paid for at the single time rate, except that production paving work shall be paid at 15% over the single time rate for the screed person, rakers and

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

shovelers directly involved only. All other workers will be exempt. Hours worked over eight (8) hours during said shift shall be paid for at the time and one-half rate.

(Local #1010)

PLASTERER

Plasterer

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$43.43

Supplemental Benefit Rate per Hour: \$27.95

Overtime

Time and one half the regular rate after a 7 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

Martin Luther King Jr. Day

President's Day

Good Friday

Memorial Day

Independence Day

Labor Day

Columbus Day

Presidential Election Day

Thanksgiving Day

Christmas Day

Paid Holidays

None

Shift Rates

When it is not possible to conduct alteration work during regular work hours, in a building occupied by tenants, said work shall proceed on a shift basis: however work over seven (7) hours in any twenty four (24) hour period, the time after seven (7) hours shall be considered overtime.

The second shift shall start at a time between 3:30 p.m. and 7:00 p.m. and shall consist of seven (7) working hours and shall receive eight (8) hours of wages and benefits at the straight time rate. The workers on the second shift shall be allowed one-half (½) hour to eat with this time being included in the seven (7) hours of work.

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§220 PREVAILING WAGE SCHEDULE

Local #530)

PLASTERER - TENDER

Plasterer - Tender

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$36.67**

Supplemental Benefit Rate per Hour: **\$28.02**

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

Washington's Birthday

Memorial Day

Independence Day

Labor Day

Presidential Election Day

Thanksgiving Day

Christmas Day

Paid Holidays

None

Shift Rates

When work commences outside regular work hours, workers receive an hour additional (differential) wage and supplement payment. Eight hours pay for seven hours work or nine hours pay for eight hours work.

(Mason Tenders District Council)

PLUMBER

Plumber

Effective Period: 7/1/2015 - 6/30/2016

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§220 PREVAILING WAGE SCHEDULE

Wage Rate per Hour: \$65.27

Supplemental Benefit Rate per Hour: \$28.38

Supplemental Note: Overtime supplemental benefit rate per hour: \$56.48

Plumber - Temporary Services

Temporary Services - When there are no Plumbers on the job site, there may be three shifts designed to cover the entire twenty-four hour period, including weekends if necessary, at the following rate straight time.

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$52.24

Supplemental Benefit Rate per Hour: \$22.28

Overtime Description

Double time the regular rate after a 7 hour day - unless for new construction site work where the plumbing contract price is \$1.5 million or less, the hours of labor can be 8 hours per day at the employers option. On Alteration jobs when other mechanical trades at the site are working an eighth hour at straight time, then the plumber shall also work an eighth hour at straight time.

Overtime

Double time the regular time rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

Shift Rates

Shift work, when directly specified in public agency or authority documents where plumbing contract is \$8 million or less, will be permitted. 30% shift premium shall be paid for wages and fringe benefits for 4:00 pm and midnight shifts Monday to Friday. 50% shift premium shall be paid for wages and fringe benefits for 4:00 pm and midnight shift work performed on weekends. For shift work on holidays, double time wages and fringe benefits shall be paid.

(Plumbers Local #1)

PLUMBER (MECHANICAL EQUIPMENT AND SERVICE)

(Mechanical Equipment and Service work shall include any repair and/or replacement of the present plumbing system.)

Plumber

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$39.27**

Supplemental Benefit Rate per Hour: **\$13.34**

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Time and one half the regular rate for Sunday.

Overtime Holidays

Time and one half the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Memorial Day

Independence Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

Paid Holidays

None

(Plumbers Local # 1)

PLUMBER (RESIDENTIAL RATES FOR 1, 2 AND 3 FAMILY HOME CONSTRUCTION)

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$45.19**

Supplemental Benefit Rate per Hour: **\$20.62**

Overtime

Double time the regular rate after an 8 hour day.

Double time the regular time rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Double time the regular rate for work on the following holiday(s).

New Year's Day
President's Day
Memorial Day
Independence Day
Labor Day
Columbus Day
Veteran's Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

Paid Holidays

None

Shift Rates

30% shift premium shall be paid for wages and fringe benefits for 4:00 pm and midnight shifts Monday to Friday.
50% shift premium shall be paid for wages and fringe benefits for 4:00 pm and midnight shift work performed on weekends. For shift work on holidays, double time wages and fringe benefits shall be paid.

(Plumbers Local #1)

PLUMBER: PUMP & TANK

Oil Trades (Installation and Maintenance)

Plumber - Pump & Tank

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$62.83**

Supplemental Benefit Rate per Hour: **\$21.37**

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Time and one half the regular rate for Sunday.

Overtime Holidays

Time and one half the regular rate for work on the following holiday(s).

New Year's Day
President's Day
Memorial Day
Independence Day
Labor Day
Columbus Day
Veteran's Day
Thanksgiving Day

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
\$220 PREVAILING WAGE SCHEDULE

Day after Thanksgiving
Christmas Day

Paid Holidays

None

Shift Rates

All work outside the regular workday (8:00 A.M. to 3:30 P.M.) is to be paid at time and one half the regular hourly rate

(Plumbers Local #1)

POINTER - WATERPROOFER, CAULKER MECHANIC (EXTERIOR BUILDING RENOVATION)

Pointer - Waterproofer, Caulker Mechanic

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$47.41

Supplemental Benefit Rate per Hour: \$24.40

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Time and one half the regular rate for Sunday.

Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Time and one half the regular rate for work on the following holiday(s).

New Year's Day

Martin Luther King Jr. Day

President's Day

Memorial Day

Independence Day

Labor Day

Thanksgiving Day

Christmas Day

Paid Holidays

None

Shift Rates

All work outside the regular work day (an eight hour workday between the hours of 6:00 A.M. and 4:30 P.M.) is to be paid at time and one half the regular rate.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

(Bricklayer District Council)

ROOFER

Roofer

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$40.70**

Supplemental Benefit Rate per Hour: **\$30.17**

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Time and one half the regular rate for Sunday.

Overtime Holidays

Time and one half the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Memorial Day

Independence Day

Labor Day

Presidential Election Day

Thanksgiving Day

Christmas Day

Paid Holidays

None

Shift Rates

Second shift - Regular hourly rate plus a 10% differential. Third shift - Regular hourly rate plus a 15% differential.

(Local #8)

SANDBLASTER - STEAMBLASTER (Exterior Building Renovation)

Sandblaster / Steamblaster

Effective Period: 7/1/2015 - 6/30/2016

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Wage Rate per Hour: **\$47.41**

Supplemental Benefit Rate per Hour: **\$24.40**

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Time and one half the regular rate for Sunday.

Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Time and one half the regular rate for work on the following holiday(s).

New Year's Day

Martin Luther King Jr. Day

President's Day

Memorial Day

Independence Day

Labor Day

Thanksgiving Day

Christmas Day

Paid Holidays

None

Shift Rates

All work outside the regular work day (an eight hour workday between the hours of 6:00 A.M. and 4:30 P.M.) is to be paid at time and one half the regular rate.

(Bricklayer District Council)

SHEET METAL WORKER

Sheet Metal Worker

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$46.96**

Supplemental Benefit Rate per Hour: **\$45.19**

Supplemental Note: Supplemental benefit contributions are to be made at the applicable overtime rates.

Sheet Metal Worker - Fan Maintenance

(The temporary operation of fans or blowers in new or existing buildings for heating and/or ventilation, and/or air conditioning prior to the completion of the project.)

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$37.57**

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Supplemental Benefit Rate per Hour: \$45.19

Sheet Metal Worker - Duct Cleaner

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$12.90

Supplemental Benefit Rate per Hour: \$8.07

Overtime

Time and one half the regular rate after a 7 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

Martin Luther King Jr. Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

Paid Holidays

None

Shift Rates

Work that can only be performed outside regular working hours (seven hours of work between 7:30 A.M. and 3:30 P.M.) - First shift (work between 3:30 P.M. and 11:30 P.M.) - 10% differential above the established hourly rate.

Second shift (work between 11:30 P.M. and 7:30 A.M.) - 15% differential above the established hourly rate.

For Fan Maintenance: On all full shifts of fan maintenance work the straight time hourly rate of pay will be paid for each shift, including nights, Saturdays, Sundays, and holidays.

(Local #28)

**SHEET METAL WORKER - SPECIALTY
(Decking & Siding)**

Sheet Metal Specialty Worker

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

The first worker to perform this work must be paid at the rate of the Sheet Metal Worker. The second and third workers shall be paid the Specialty Worker Rate. The ratio of One Sheet Metal Worker, then Two Specialty Workers shall be utilized thereafter.

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$42.64**

Supplemental Benefit Rate per Hour: **\$23.62**

Supplemental Note: Supplemental benefit contributions are to be made at the applicable overtime rates.

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

Martin Luther King Jr. Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Christmas Day

Paid Holidays

None

(Local #28)

SHIPYARD WORKER

Shipyard Mechanic - First Class

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$27.54**

Supplemental Benefit Rate per Hour: **\$3.01**

Shipyard Mechanic - Second Class

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$20.22**

Supplemental Benefit Rate per Hour: **\$2.73**

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Shipyard Laborer - First Class

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: **\$20.90**
Supplemental Benefit Rate per Hour: **\$2.75**

Shipyard Laborer - Second Class

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: **\$13.86**
Supplemental Benefit Rate per Hour: **\$2.48**

Shipyard Dockhand - First Class

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: **\$23.61**
Supplemental Benefit Rate per Hour: **\$2.86**

Shipyard Dockhand - Second Class

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: **\$15.94**
Supplemental Benefit Rate per Hour: **\$2.56**

Overtime Description

Work performed on holiday is paid double time the regular hourly wage rate plus holiday pay.

Overtime

Time and one half the regular rate after an 8 hour day.
Time and one half the regular rate for Saturday.
Double time the regular rate for Sunday.
Time and one half the regular hourly rate after 40 hours in any work week.

Paid Holidays

New Year's Day
Martin Luther King Jr. Day
President's Day
Good Friday
Memorial Day
Independence Day
Labor Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

Based on Survey Data

SIGN ERECTOR
(Sheet Metal, Plastic, Electric, and Neon)

Sign Erector

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$45.60**

Supplemental Benefit Rate per Hour: **\$46.28**

Overtime

Time and one half the regular rate after a 7 hour day.

Time and one half the regular rate for Saturday.

Time and one half the regular rate for Sunday.

Time and one half the regular rate for work on the following holiday(s).

Paid Holidays

New Year's Day

Washington's Birthday

Memorial Day

Independence Day

Labor Day

Columbus Day

Election Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

Shift Rates

Time and one half the regular hourly rate is to be paid for all hours worked outside the regular workday either (7:00 A.M. through 2:30 P.M.) or (8:00 A.M. through 3:30 P.M.)

(Local #137)

STEAMFITTER

Steamfitter I

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$55.00**

Supplemental Benefit Rate per Hour: **\$52.79**

Supplemental Note: Overtime supplemental benefit rate: **\$104.84**

Steamfitter -Temporary Services

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

The steamfitters shall not do any other work and shall not be permitted to work more than one shift in a twenty-four hour day. When steamfitters are present during the regular working day, no temporary services steamfitter will be required

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$41.80

Supplemental Benefit Rate per Hour: \$42.76

Supplemental Note: .

Overtime

Double time the regular rate after a 7 hour day.

Double time the regular time rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

Paid Holidays

None

Shift Rates

Work performed between 3:30 P.M. and 7:00 A.M. and on Saturdays, Sundays and Holidays shall be at double time the regular hourly rate and paid at the overtime supplemental benefit rate above.

Steamfitter II

For heating, ventilation, air conditioning and mechanical public works contracts with a dollar value not to exceed \$15,000,000 and for fire protection/sprinkler public works contracts not to exceed \$1,500,000.

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$55.00

Supplemental Benefit Rate per Hour: \$52.79

Supplemental Note: Overtime supplemental benefit rate: \$104.84

Steamfitter -Temporary Services

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

The steamfitters shall not do any other work and shall not be permitted to work more than one shift in a twenty-four hour day. When steamfitters are present during the regular working day, no temporary services steamfitter will be required.

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$41.80

Supplemental Benefit Rate per Hour: \$42.76

Overtime

Double time the regular rate after an 8 hour day.

Double time the regular time rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

Paid Holidays

None

Shift Rates

May be performed outside of the regular workday except Saturday, Sunday and Holidays. A shift shall consist of eight working hours. All work performed in excess of eight hours shall be paid at double time. No shift shall commence after 7:00 P.M. on Friday or 7:00 P.M. the day before holidays. All work performed after 12:01 A.M. Saturday or 12:01 A.M. the day before a Holiday will be paid at double time. When shift work is performed the wage rate for regular time worked is a thirty percent premium together with fringe benefits.

On Transit Authority projects, where work is performed in the vicinity of tracks all shift work on weekends and holidays may be performed at the regular shift rates.

Local #638

STEAMFITTER - REFRIGERATION AND AIR CONDITIONER (Maintenance and Installation Service Person)

Refrigeration and Air Conditioner Mechanic

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$39.25
Supplemental Benefit Rate per Hour: \$13.81

Refrigeration and Air Conditioner Service Person V

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$32.25
Supplemental Benefit Rate per Hour: \$12.44

Refrigeration and Air Conditioner Service Person IV

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$26.72
Supplemental Benefit Rate per Hour: \$11.30

Refrigeration and Air Conditioner Service Person III

Filter changing and maintenance thereof, oil and greasing, tower and coil cleaning, scraping and painting, general housekeeping, taking of water samples.

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$22.93
Supplemental Benefit Rate per Hour: \$10.45

Refrigeration and Air Conditioner Service Person II

Filter changing and maintenance thereof, oil and greasing, tower and coil cleaning, scraping and painting, general housekeeping, taking of water samples.

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$19.02
Supplemental Benefit Rate per Hour: \$9.67

Refrigeration and Air Conditioner Service Person I

Filter changing and maintenance thereof, oil and greasing, tower and coil cleaning, scraping and painting, general housekeeping, taking of water samples.

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$13.91
Supplemental Benefit Rate per Hour: \$8.78

Overtime

Time and one half the regular rate after an 8 hour day.
Time and one half the regular rate for Saturday.
Double time the regular rate for Sunday.

Overtime Holidays

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Double time the regular rate for work on the following holiday(s).

New Year's Day
Independence Day
Labor Day
Veteran's Day
Thanksgiving Day
Christmas Day

Double time and one half the regular rate for work on the following holiday(s).

Martin Luther King Jr. Day
President's Day
Memorial Day
Columbus Day

Paid Holidays

New Year's Day
Martin Luther King Jr. Day
President's Day
Memorial Day
Independence Day
Labor Day
Columbus Day
Veteran's Day
Thanksgiving Day
Christmas Day

(Local #638B)

STONE MASON - SETTER

Stone Mason - Setters

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$47.20

Supplemental Benefit Rate per Hour: \$37.15

Overtime

Time and one half the regular rate after a 7 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day
Washington's Birthday
Good Friday
Memorial Day
Independence Day

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Labor Day
Thanksgiving Day
Christmas Day

Paid Holidays

1/2 day on Christmas Eve if work is performed in the A.M.

Shift Rates

For all work outside the regular workday (8:00 A.M. to 3:30 P.M. Monday through Friday), the pay shall be straight time plus a ten percent (10%) differential.

(Bricklayers District Council)

TAPER

Drywall Taper

Effective Period: 7/1/2015 - 12/29/2015

Wage Rate per Hour: **\$46.32**

Supplemental Benefit Rate per Hour: **\$22.66**

Effective Period: 12/30/2015 - 6/30/2016

Wage Rate per Hour: **\$46.82**

Supplemental Benefit Rate per Hour: **\$22.66**

Overtime

Time and one half the regular rate after a 7 hour day.

Time and one half the regular rate for Saturday.

Time and one half the regular rate for Sunday.

Overtime Holidays

Time and one half the regular rate for work on the following holiday(s).

New Year's Day

Martin Luther King Jr. Day

President's Day

Good Friday

Memorial Day

Independence Day

Labor Day

Columbus Day

Thanksgiving Day

Christmas Day

Paid Holidays

Any worker who reports to work on Christmas Eve or New Year's Eve pursuant to his employer's instruction shall be entitled to three (3) hours afternoon pay without working.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Shift Rates

Time and one half the regular rate outside the regular work hours (8:00 A.M. through 3:30 P.M.)

(Local #1974)

**TELECOMMUNICATION WORKER
(Voice Installation Only)**

Telecommunication Worker

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$40.35**

Supplemental Benefit Rate per Hour: **\$13.19**

Supplemental Note: The above rate applies for Manhattan, Bronx, Brooklyn, Queens. \$12.64 for Staten Island only.

Overtime

Time and one half the regular rate after a 7 hour day.

Time and one half the regular rate for Saturday.

Time and one half the regular rate for Sunday.

Overtime Holidays

Time and one half the regular rate for work on the following holiday(s).

New Year's Day

Lincoln's Birthday

Washington's Birthday

Memorial Day

Independence Day

Labor Day

Columbus Day

Election Day

Veteran's Day

Thanksgiving Day

Christmas Day

Paid Holidays

New Year's Day

Lincoln's Birthday

Washington's Birthday

Memorial Day

Independence Day

Labor Day

Columbus Day

Election Day

Veteran's Day

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Thanksgiving Day
Christmas Day

Employees have the option of observing either Martin Luther King's Birthday or the day after Thanksgiving instead of Lincoln's Birthday

Shift Rates

For any workday that starts before 8A.M. or ends after 6P.M. there is a 10% differential for the applicable worker's hourly rate.

Vacation

After 6 months.....one week.
After 12 months but less than 7 years.....two weeks.
After 7 or more but less than 15 years.....three weeks.
After 15 years or more but less than 25 years.....four weeks.

(C.W.A.)

TILE FINISHER

Tile Finisher

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$40.03

Supplemental Benefit Rate per Hour: \$29.71

Overtime

Time and one half the regular rate after a 7 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Good Friday

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

Paid Holidays

None

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Shift Rates

Off shift work day (work performed outside the regular 8:00 A.M. to 3:30 P.M. workday): shift differential of one and one quarter (1¼) times the regular straight time rate of pay for the seven hours of actual off-shift work.

(Local #7)

TILE LAYER - SETTER

Tile Layer - Setter

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$51.61**

Supplemental Benefit Rate per Hour: **\$33.46**

Overtime

Time and one half the regular rate after a 7 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Good Friday

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

Shift Rates

Off shift work day (work performed outside the regular 8:00 A.M. to 3:30 P.M. workday): shift differential of one and one quarter (1¼) times the regular straight time rate of pay for the seven hours of actual off-shift work.

(Local #7)

TIMBERPERSON

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Timberperson

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$45.60

Supplemental Benefit Rate per Hour: \$46.67

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Time and one half the regular hourly rate after 40 hours in any work week.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Presidential Election Day

Thanksgiving Day

Christmas Day

Paid Holidays

None

Shift Rates

Off shift work commencing between 5:00 P.M. and 11:00 P.M. shall work eight and one half hours allowing for one half hour for lunch. The wage rate shall be 113% of the straight time hourly wage rate.

(Local #1536)

TUNNEL WORKER

Blasters, Mucking Machine Operators (Compressed Air Rates)

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$59.17

Supplemental Benefit Rate per Hour: \$49.45

Tunnel Workers (Compressed Air Rates)

Effective Period: 7/1/2015 - 6/30/2016

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Wage Rate per Hour: \$57.12
Supplemental Benefit Rate per Hour: \$47.80

Top Nipper (Compressed Air Rates)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$56.07
Supplemental Benefit Rate per Hour: \$46.96

Outside Lock Tender, Outside Gauge Tender, Muck Lock Tender (Compressed Air Rates)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$55.06
Supplemental Benefit Rate per Hour: \$46.07

Bottom Bell & Top Bell Signal Person: Shaft Person (Compressed Air Rates)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$55.06
Supplemental Benefit Rate per Hour: \$46.07

Changehouse Attendant: Powder Watchperson (Compressed Air Rates)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$48.16
Supplemental Benefit Rate per Hour: \$43.62

Blasters (Free Air Rates)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$56.47
Supplemental Benefit Rate per Hour: \$47.47

Tunnel Workers (Free Air Rates)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$54.04
Supplemental Benefit Rate per Hour: \$45.45

All Others (Free Air Rates)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$49.93
Supplemental Benefit Rate per Hour: \$42.06

Microtunneling (Free Air Rates)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$43.23

Supplemental Benefit Rate per Hour: \$36.36

Overtime Description

For Repair-Maintenance Work on Existing Equipment and Facilities - Time and one half the regular rate after a 7 hour day, or for Saturday, or for Sunday. Double time the regular rate for work on a holiday.

For Small-Bore Micro Tunneling Machines - Time and one-half the regular rate shall be paid for all overtime.

Overtime

Double time the regular rate after an 8 hour day.

Double time the regular time rate for Saturday.

Double time the regular rate for Sunday.

Double time the regular rate for work on the following holiday(s).

Paid Holidays

New Year's Day

Lincoln's Birthday

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Election Day

Veteran's Day

Thanksgiving Day

Christmas Day

(Local #147)

WELDER

**TO BE PAID AT THE RATE OF THE JOURNEYPERSON IN THE TRADE
PERFORMING THE WORK.**

OFFICE OF THE COMPTROLLER

CITY OF NEW YORK

220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

APPENDIX

Pursuant to Labor Law §220 (3-e), only apprentices who are individually registered in a bona fide program to which the employer contractor is a participant and registered with the New York State Department of Labor, may be employed on a public work project.

Any employee listed on a payroll at an apprentice wage rate, who is not registered as above, shall be paid the journey person wage rate for the classification of work he actually performed.

Apprentice ratios are established to ensure the proper safety, training and supervision of apprentices. A ratio establishes the number of journey workers required for each apprentice in a program and on a job site. Ratios are interpreted as follows: in the case of a 1:1, 1:4 ratio, there must be one journey worker for the first apprentice, and four additional journey workers for each subsequent apprentice.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
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ASBESTOS HANDLER

(Ratio of Apprentice Journeyperson: 1 to 1, 1 to 3)

Asbestos Handler (First 1000 Hours)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 78% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$15.95

Asbestos Handler (Second 1000 Hours)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 80% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$15.95

Asbestos Handler (Third 1000 Hours)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 83% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$15.95

Asbestos Handler (Fourth 1000 Hours)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 89% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$15.95

(Local #78)

BOILERMAKER

(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 3)

Boilermaker (First Year)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 65% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$30.00

Boilermaker (Second Year: 1st Six Months)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 70% of Journeyperson's rate

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Supplemental Benefit Rate Per Hour: \$31.66

Boilermaker (Second Year: 2nd Six Months)

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate Per Hour: 75% of Journeyperson's rate

Supplemental Benefit Rate Per Hour: \$33.32

Boilermaker (Third Year: 1st Six Months)

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate Per Hour: 80% of Journeyperson's rate

Supplemental Benefit Rate Per Hour: \$35.00

Boilermaker (Third Year: 2nd Six Months)

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate Per Hour: 85% of Journeyperson's rate

Supplemental Benefit Rate Per Hour: \$36.67

Boilermaker (Fourth Year: 1st Six Months)

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate Per Hour: 90% of Journeyperson's rate

Supplemental Benefit Rate Per Hour: \$38.34

Boilermaker (Fourth Year: 2nd Six Months)

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate Per Hour: 95% of Journeyperson's rate

Supplemental Benefit Rate Per Hour: \$40.01

(Local #5)

BRICKLAYER

(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 4)

Bricklayer (First 750 Hours)

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate Per Hour: 50% of Journeyperson's rate

Supplemental Benefit Rate Per Hour: \$17.10

Bricklayer (Second 750 Hours)

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Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 60% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$17.10

Bricklayer (Third 750 Hours)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 70% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$17.10

Bricklayer (Fourth 750 Hours)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 80% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$17.10

Bricklayer (Fifth 750 Hours)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 90% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$17.10

Bricklayer (Sixth 750 Hours)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 95% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$17.10

(Bricklayer District Council)

CARPENTER

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 4)

Carpenter (First Year)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 40% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$31.14

Carpenter (Second Year)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 50% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$31.14

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Carpenter (Third Year)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 65% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$31.14

Carpenter (Fourth Year)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 80% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$31.14

(Carpenters District Council)

CEMENT MASON

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 4)

Cement Mason (First Year)

Effective Period: 7/1/2015 - 6/30/2016
Wage and Supplemental Rate Per Hour: 50% of Journeyman's Rate

Cement Mason (Second Year)

Effective Period: 7/1/2015 - 6/30/2016
Wage and Supplemental Rate Per Hour: 60% of Journeyman's Rate

Cement Mason (Third Year)

Effective Period: 7/1/2015 - 6/30/2016
Wage and Supplemental Rate Per Hour: 70% of Journeyman's Rate

(Local #780)

CEMENT AND CONCRETE WORKER

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 3)

Cement & Concrete Worker (First 1333 hours)

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Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 50% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$18.84

Cement & Concrete Worker (Second 1333 hours)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 65% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$24.65

Cement & Concrete Worker (Last 1334 hours)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 80% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$25.47

(Cement Concrete Workers District Council)

DERRICKPERSON & RIGGER (STONE)
(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 4)

Derrickperson & Rigger (stone) - First Year

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 50% of Journeyman's rate
Supplemental Benefit Rate Per Hour: 50% of Journeyman's rate

Derrickperson & Rigger (stone) - Second Year: 1st Six Months

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 70% of Journeyman's rate
Supplemental Benefit Rate Per Hour: 75% of Journeyman's rate

Derrickperson & Rigger (stone) - Second Year: 2nd Six Months

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 80% of Journeyman's rate
Supplemental Benefit Rate Per Hour: 75% of Journeyman's rate

Derrickperson & Rigger (stone) - Third Year

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 90% of Journeyman's rate
Supplemental Benefit Rate Per Hour: 75% of Journeyman's rate

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(Local #197)

DOCKBUILDER/PILE DRIVER
(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 6)

Dockbuilder/Pile Driver (First Year)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 40% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$31.52

Dockbuilder/Pile Driver (Second Year)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 50% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$31.52

Dockbuilder/Pile Driver (Third Year)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 65% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$31.52

Dockbuilder/Pile Driver (Fourth Year)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 80% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$31.52

(Carpenters District Council)

ELECTRICIAN
(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 3)

Electrician (First Term: 0-6 Months)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$13.00

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Supplemental Benefit Rate per Hour: \$11.61
Overtime Supplemental Rate Per Hour: \$12.47

Electrician (First Term: 7-12 Months)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$14.00
Supplemental Benefit Rate per Hour: \$12.12
Overtime Supplemental Rate Per Hour: \$13.04

Electrician (Second Term: 0-6 Months)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$15.00
Supplemental Benefit Rate per Hour: \$12.63
Overtime Supplemental Rate Per Hour: \$13.62

Electrician (Second Term: 7-12 Months)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$16.00
Supplemental Benefit Rate per Hour: \$13.14
Overtime Supplemental Rate Per Hour: \$14.19

Electrician (Third Term: 0-6 Months)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$17.00
Supplemental Benefit Rate per Hour: \$13.65
Overtime Supplemental Rate Per Hour: \$14.77

Electrician (Third Term: 7-12 Months)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$18.00
Supplemental Benefit Rate per Hour: \$14.16
Overtime Supplemental Rate Per Hour: \$15.34

Electrician (Fourth Term: 0-6 Months)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$19.00
Supplemental Benefit Rate per Hour: \$14.67
Overtime Supplemental Rate Per Hour: \$15.92

Electrician (Fourth Term: 7-12 Months)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$21.00

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Supplemental Benefit Rate per Hour: \$15.68
Overtime Supplemental Rate Per Hour: \$17.07

Electrician (Fifth Term: 0-12 Months - Hired on or after 5/10/07)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$23.00
Supplemental Benefit Rate per Hour: \$18.56
Overtime Supplemental Rate Per Hour: \$20.00

Electrician (Fifth Term: 13-18 Months - Hired on or after 5/10/07)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$27.50
Supplemental Benefit Rate per Hour: \$20.82
Overtime Supplemental Rate Per Hour: \$22.54

Electrician (Fifth Term: 0-18 Months - Hired before 5/10/07)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$26.80
Supplemental Benefit Rate per Hour: \$20.46
Overtime Supplemental Rate Per Hour: \$22.14

Overtime Description

Overtime Wage paid at time and one half the regular rate
For "A" rated Apprentices (work in excess of 7 hours per day)
For "M" rated Apprentices (work in excess of 8 hours per day)

(Local #3)

ELEVATOR CONSTRUCTOR

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 2)

Elevator (Constructor) - First Year

Effective Period: 7/1/2015 - 3/16/2016
Wage Rate Per Hour: 50% of Journeyman's rate
Supplemental Rate Per Hour: \$26.94

Effective Period: 3/17/2016 - 6/30/2016
Wage Rate Per Hour: 50% of Journeyman's rate
Supplemental Rate Per Hour: \$28.41

Elevator (Constructor) - Second Year

Effective Period: 7/1/2015 - 3/16/2016
Wage Rate Per Hour: 55% of Journeyman's rate
Supplemental Rate Per Hour: \$27.35

Effective Period: 3/17/2016 - 6/30/2016
Wage Rate Per Hour: 55% of Journeyman's rate
Supplemental Rate Per Hour: \$28.84

Elevator (Constructor) - Third Year

Effective Period: 7/1/2015 - 3/16/2016
Wage Rate Per Hour: 65% of Journeyman's rate
Supplemental Rate Per Hour: \$28.17

Effective Period: 3/17/2016 - 6/30/2016
Wage Rate Per Hour: 65% of Journeyman's rate
Supplemental Rate Per Hour: \$29.69

Elevator (Constructor) - Fourth Year

Effective Period: 7/1/2015 - 3/16/2016
Wage Rate Per Hour: 75% of Journeyman's rate
Supplemental Rate Per Hour: \$29.00

Effective Period: 3/17/2016 - 6/30/2016
Wage Rate Per Hour: 75% of Journeyman's rate
Supplemental Rate Per Hour: \$30.54

(Local #1)

ELEVATOR REPAIR & MAINTENANCE
(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 2)

Elevator Service/Modernization Mechanic (First Year)

Effective Period: 7/1/2015 - 3/16/2016
Wage Rate Per Hour: 50% of Journeyman's rate
Supplemental Benefit Per Hour: \$26.87

Effective Period: 3/17/2016 - 6/30/2016
Wage Rate Per Hour: 50% of Journeyman's rate
Supplemental Benefit Per Hour: \$28.34

Elevator Service/Modernization Mechanic (Second Year)

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Effective Period: 7/1/2015 - 3/16/2016
Wage Rate Per Hour: 55% of Journeyman's rate
Supplemental Benefit Per Hour: \$27.27

Effective Period: 3/17/2016 - 6/30/2016
Wage Rate Per Hour: 55% of Journeyman's rate
Supplemental Benefit Per Hour: \$28.76

Elevator Service/Modernization Mechanic (Third Year)

Effective Period: 7/1/2015 - 3/16/2016
Wage Rate Per Hour: 65% of Journeyman's rate
Supplemental Benefit Per Hour: \$28.08

Effective Period: 3/17/2016 - 6/30/2016
Wage Rate Per Hour: 65% of Journeyman's rate
Supplemental Benefit Per Hour: \$29.60

Elevator Service/Modernization Mechanic (Fourth Year)

Effective Period: 7/1/2015 - 3/16/2016
Wage Rate Per Hour: 75% of Journeyman's rate
Supplemental Benefit Per Hour: \$28.89

Effective Period: 3/17/2016 - 6/30/2016
Wage Rate Per Hour: 75% of Journeyman's rate
Supplemental Benefit Per Hour: \$30.43

(Local #1)

ENGINEER

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 5)

Engineer - First Year

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$23.68
Supplemental Benefit Rate per Hour: \$22.55

Engineer - Second Year

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$29.60
Supplemental Benefit Rate per Hour: \$22.55

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Engineer - Third Year

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$32.56

Supplemental Benefit Rate per Hour: \$22.55

Engineer - Fourth Year

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$35.52

Supplemental Benefit Rate per Hour: \$22.55

(Local #15)

ENGINEER - OPERATING

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 5)

Operating Engineer - First Year

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate Per Hour 40% of Journeyman's Rate

Supplemental Benefit Per Hour: \$20.15

Operating Engineer - Second Year

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate Per Hour: 50% of Journeyman's Rate

Supplemental Benefit Per Hour: \$20.15

Operating Engineer - Third Year

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate Per Hour: 60% of Journeyman's Rate

Supplemental Benefit Per Hour: \$20.15

(Local #14)

FLOOR COVERER

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 4)

Floor Coverer (First Year)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 40% of Journeyman's rate
Supplemental Rate Per Hour: \$31.14

Floor Coverer (Second Year)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 50% of Journeyman's rate
Supplemental Rate Per Hour: \$31.14

Floor Coverer (Third Year)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 65% of Journeyman's rate
Supplemental Rate Per Hour: \$31.14

Floor Coverer (Fourth Year)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 80% of Journeyman's rate
Supplemental Rate Per Hour: \$31.14

(Carpenters District Council)

GLAZIER

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 3)

Glazier (First Year)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 40% of Journeyman's rate
Supplemental Rate Per Hour: \$13.64
Effective 11/1/2015 - Supplemental Rate Per Hour: \$13.79

Glazier (Second Year)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 50% of Journeyman's rate

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Supplemental Rate Per Hour: \$22.97
Effective 11/1/2015 - Supplemental Rate Per Hour: \$23.13

Glazier (Third Year)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 60% of Journeyperson's rate
Supplemental Rate Per Hour: \$25.87
Effective 11/1/2015 - Supplemental Rate Per Hour: \$26.03

Glazier (Fourth Year)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 80% of Journeyperson's rate
Supplemental Rate Per Hour: \$31.04
Effective 11/1/2015 - Supplemental Rate Per Hour: \$31.29

(Local #1281)

HEAT & FROST INSULATOR

(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 4)

Heat & Frost Insulator (First Year)

Effective Period: 7/1/2015 - 6/30/2016
Wage and Supplemental Rate Per Hour: 40% of Journeyperson's rate

Heat & Frost Insulator (Second Year)

Effective Period: 7/1/2015 - 6/30/2016
Wage and Supplemental Rate Per Hour: 60% of Journeyperson's rate

Heat & Frost Insulator (Third Year)

Effective Period: 7/1/2015 - 6/30/2016
Wage and Supplemental Rate Per Hour: 70% of Journeyperson's rate

Heat & Frost Insulator (Fourth Year)

Effective Period: 7/1/2015 - 6/30/2016
Wage and Supplemental Rate Per Hour: 80% of Journeyperson's rate

(Local #12)

**HOUSE WRECKER
(TOTAL DEMOLITION)
(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 3)**

House Wrecker - First Year

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$21.17
Supplemental Benefit Rate per Hour: \$17.33

House Wrecker - Second Year

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$22.32
Supplemental Benefit Rate per Hour: \$17.33

House Wrecker - Third Year

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$23.97
Supplemental Benefit Rate per Hour: \$17.33

House Wrecker - Fourth Year

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$26.53
Supplemental Benefit Rate per Hour: \$17.33

(Mason Tenders District Council)

**IRON WORKER - ORNAMENTAL
(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 4)**

Iron Worker (Ornamental) - 1st Ten Months

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 50% of Journeyman's rate
Supplemental Rate Per Hour: \$36.50

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Iron Worker (Ornamental) - 11 -16 Months

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 55% of Journeyperson's rate
Supplemental Rate Per Hour: \$37.62

Iron Worker (Ornamental) - 17 - 22 Months

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 60% of Journeyperson's rate
Supplemental Rate Per Hour: \$38.73

Iron Worker (Ornamental) - 23 - 28 Months

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 70% of Journeyperson's rate
Supplemental Rate Per Hour: \$40.97

Iron Worker (Ornamental) - 29 - 36 Months

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 80% of Journeyperson's rate
Supplemental Rate Per Hour: \$43.20

(Local #580)

IRON WORKER - STRUCTURAL
(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 6)

Iron Worker (Structural) - 1st Six Months

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$25.48
Supplemental Benefit Rate per Hour: \$46.83

Iron Worker (Structural) - 7- 18 Months

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$26.08
Supplemental Benefit Rate per Hour: \$46.83

Iron Worker (Structural) - 19 - 36 months

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Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$26.68
Supplemental Benefit Rate per Hour: \$46.83

(Local #40 and #361)

**LABORER (FOUNDATION, CONCRETE, EXCAVATING, STREET PIPE
LAYER & COMMON)**
(Ratio Apprentice to Journeyman: 1 to 1, 1 to 3)

**Laborer (Foundation, Concrete, Excavating, Street Pipe Layer & Common) - First
1000 hours**

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 50% of Journeyman's rate
Supplemental Rate Per Hour: \$36.53

**Laborer (Foundation, Concrete, Excavating, Street Pipe Layer & Common) -
Second 1000 hours**

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 60% of Journeyman's rate
Supplemental Rate Per Hour: \$36.53

**Laborer (Foundation, Concrete, Excavating, Street Pipe Layer & Common) -
Third 1000 hours**

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 75% of Journeyman's rate
Supplemental Rate Per Hour: \$36.53

**Laborer (Foundation, Concrete, Excavating, Street Pipe Layer & Common) -
Fourth 1000 hours**

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 90% of Journeyman's rate
Supplemental Rate Per Hour: \$36.53

(Local #731)

MARBLE MECHANICS

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 4)

Cutters & Setters - First 750 Hours

Effective Period: 7/1/2015 - 6/30/2016

Wage and Supplemental Rate Per Hour: 50% of Journeyman's rate

NO BENEFITS PAID DURING THE FIRST TWO MONTHS (PROBATIONARY PERIOD)

Cutters & Setters - Second 750 Hours

Effective Period: 7/1/2015 - 6/30/2016

Wage and Supplemental Rate Per Hour: 55% of Journeyman's rate

Cutters & Setters - Third 750 Hours

Effective Period: 7/1/2015 - 6/30/2016

Wage and Supplemental Rate Per Hour: 65% of Journeyman's rate

Cutters & Setters - Fourth 750 Hours

Effective Period: 7/1/2015 - 6/30/2016

Wage and Supplemental Rate Per Hour: 75% of Journeyman's rate

Cutters & Setters - Fifth 750 Hours

Effective Period: 7/1/2015 - 6/30/2016

Wage and Supplemental Rate Per Hour: 85% of Journeyman's rate

Cutters & Setters - Sixth 750 Hours

Effective Period: 7/1/2015 - 6/30/2016

Wage and Supplemental Rate Per Hour: 95% of Journeyman's rate

Polishers & Finishers - First 750 Hours

Effective Period: 7/1/2015 - 6/30/2016

Wage and Supplemental Rate Per Hour: 50% of Journeyman's rate

NO BENEFITS PAID DURING THE FIRST TWO MONTHS (PROBATIONARY PERIOD)

Polishers & Finishers - Second 750 Hours

Effective Period: 7/1/2015 - 6/30/2016

Wage and Supplemental Rate Per Hour: 60% of Journeyman's rate

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Polishers & Finishers - Third 750 Hours

Effective Period: 7/1/2015 - 6/30/2016
Wage and Supplemental Rate Per Hour: 75% of Journeyperson's rate

Polishers & Finishers - Fourth 750 Hours

Effective Period: 7/1/2015 - 6/30/2016
Wage and Supplemental Rate Per Hour: 90% of Journeyperson's rate

(Local #7)

MASON TENDER

(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 3)

Mason Tender - First Year

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$21.39
Supplemental Benefit Rate per Hour: \$18.44

Mason Tender - Second Year

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$22.54
Supplemental Benefit Rate per Hour: \$18.44

Mason Tender - Third Year

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$24.29
Supplemental Benefit Rate per Hour: \$18.49

Mason Tender - Fourth Year

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$26.95
Supplemental Benefit Rate per Hour: \$18.49

(Local #79)

METALLIC LATHER

(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 3)

Metallic Lather (First Year -Called Prior to 6/29/11)

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$29.41

Supplemental Benefit Rate per Hour: \$22.89

Metallic Lather (Second Year - Called Prior to 6/29/11)

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$34.01

Supplemental Benefit Rate per Hour: \$24.54

Metallic Lather (Third Year - Called Prior to 6/29/11)

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$39.07

Supplemental Benefit Rate per Hour: \$25.69

Metallic Lather (First Year -Called On Or After 6/29/11)

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$23.01

Supplemental Benefit Rate per Hour: \$17.95

Metallic Lather (Second Year - Called On Or After 6/29/11)

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$28.11

Supplemental Benefit Rate per Hour: \$17.95

Metallic Lather (Third Year - Called On Or After 6/29/11)

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$33.21

Supplemental Benefit Rate per Hour: \$17.95

(Local #46)

MILLWRIGHT

(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 4)

Millwright (First Year)

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$27.23**

Supplemental Benefit Rate per Hour: **\$34.06**

Millwright (Second Year)

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$32.18**

Supplemental Benefit Rate per Hour: **\$37.62**

Millwright (Third Year)

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$37.13**

Supplemental Benefit Rate per Hour: **\$41.83**

Millwright (Fourth Year)

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$47.03**

Supplemental Benefit Rate per Hour: **\$48.31**

(Local #740)

PAVER AND ROADBUILDER

(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 3)

Paver and Roadbuilder - First Year (Minimum 1000 hours)

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: **\$27.05**

Supplemental Benefit Rate per Hour: **\$17.12**

Paver and Roadbuilder - Second Year (Minimum 1000 hours)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
\$220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$28.69
Supplemental Benefit Rate per Hour: \$17.12

(Local #1010)

PAINTER
(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 3)

Painter - Brush & Roller - First Year

Effective Period: 7/1/2015 - 10/31/2015
Wage Rate per Hour: \$15.80
Supplemental Benefit Rate per Hour: \$11.88

Effective Period: 11/1/2015 - 6/30/2016
Wage Rate per Hour: \$16.40
Supplemental Benefit Rate per Hour: \$12.13

Painter - Brush & Roller - Second Year

Effective Period: 7/1/2015 - 10/31/2015
Wage Rate per Hour: \$19.75
Supplemental Benefit Rate per Hour: \$15.73

Effective Period: 11/1/2015 - 6/30/2016
Wage Rate per Hour: \$20.50
Supplemental Benefit Rate per Hour: \$15.98

Painter - Brush & Roller - Third Year

Effective Period: 7/1/2015 - 10/31/2015
Wage Rate per Hour: \$23.70
Supplemental Benefit Rate per Hour: \$18.64

Effective Period: 11/1/2015 - 6/30/2016
Wage Rate per Hour: \$24.60
Supplemental Benefit Rate per Hour: \$18.89

Painter - Brush & Roller - Fourth Year

Effective Period: 7/1/2015 - 10/31/2015
Wage Rate per Hour: \$31.60

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Supplemental Benefit Rate per Hour: \$24.02

Effective Period: 11/1/2015 - 6/30/2016

Wage Rate per Hour: \$32.80

Supplemental Benefit Rate per Hour: \$24.27

(District Council of Painters)

PAINTER - STRUCTURAL STEEL
(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 3)

Painters - Structural Steel (First Year)

Effective Period: 7/1/2015 - 6/30/2016

Wage and Supplemental Rate Per Hour: 40% of Journeyman's rate

Painters - Structural Steel (Second Year)

Effective Period: 7/1/2015 - 6/30/2016

Wage and Supplemental Rate Per Hour: 60% of Journeyman's rate

Painters - Structural Steel (Third Year)

Effective Period: 7/1/2015 - 6/30/2016

Wage and Supplemental Rate Per Hour: 80% of Journeyman's rate

(Local #806)

PLASTERER
(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 3)

Plasterer - First Year: 1st Six Months

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate Per Hour: 40% of Journeyman's rate

Supplemental Rate Per Hour: \$15.76

Plasterer - First Year: 2nd Six Months

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
\$220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 45% of Journeyperson's rate
Supplemental Rate Per Hour: \$16.24

Plasterer - Second Year: 1st Six Months

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 55% of Journeyperson's rate
Supplemental Rate Per Hour: \$18.21

Plasterer - Second Year: 2nd Six Months

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 60% of Journeyperson's rate
Supplemental Rate Per Hour: \$19.29

Plasterer - Third Year: 1st Six Months

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 70% of Journeyperson's rate
Supplemental Rate Per Hour: \$21.46

Plasterer - Third Year: 2nd Six Months

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 75% of Journeyperson's rate
Supplemental Rate Per Hour: \$22.54

(Local #530)

PLUMBER

(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 3)

Plumber - First Year: 1st Six Months

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$14.00
Supplemental Benefit Rate per Hour: \$0.71

Plumber - First Year: 2nd Six Months

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$14.00

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
\$220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Supplemental Benefit Rate per Hour: \$2.96

Plumber - Second Year

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$23.87

Supplemental Benefit Rate per Hour: \$12.76

Plumber - Third Year

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$25.97

Supplemental Benefit Rate per Hour: \$12.76

Plumber - Fourth Year

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$28.82

Supplemental Benefit Rate per Hour: \$12.76

Plumber - Fifth Year: 1st Six Months

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$30.22

Supplemental Benefit Rate per Hour: \$12.76

Plumber - Fifth Year: 2nd Six Months

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$42.29

Supplemental Benefit Rate per Hour: \$12.76

(Plumbers Local #1)

**POINTER - WATERPROOFER, CAULKER MECHANIC (EXTERIOR
BUILDING RENOVATION)**

(Ratio of Apprentice to Journey person: 1 to 1, 1 to 4)

Pointer - Waterproofer, Caulker Mechanic - First Year

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$25.01

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
\$220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Supplemental Benefit Rate per Hour: \$4.75

Pointer - Waterproofer, Caulker Mechanic - Second Year

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$27.25

Supplemental Benefit Rate per Hour: \$9.70

Pointer - Waterproofer, Caulker Mechanic - Third Year

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$32.24

Supplemental Benefit Rate per Hour: \$12.45

Pointer - Waterproofer, Caulker Mechanic - Fourth Year

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$38.66

Supplemental Benefit Rate per Hour: \$12.45

(Bricklayer District Council)

ROOFER

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 2)

Roofer - First Year

Effective Period: 7/1/2015 - 6/30/2016

Wage and Supplemental Rate Per Hour: 35% of Journeyman's Rate

Roofer - Second Year

Effective Period: 7/1/2015 - 6/30/2016

Wage and Supplemental Rate Per Hour: 50% of Journeyman's Rate

Roofer - Third Year

Effective Period: 7/1/2015 - 6/30/2016

Wage and Supplemental Rate Per Hour: 60% of Journeyman's Rate

Roofer - Fourth Year

Effective Period: 7/1/2015 - 6/30/2016

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Wage and Supplemental Rate Per Hour: 75% of Journeyperson's Rate

(Local #8)

SHEET METAL WORKER

(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 3)

Sheet Metal Worker (0-6 Months)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 25% of Journeyperson's rate
Supplemental Rate Per Hour: \$6.24

Sheet Metal Worker (7-18 Months)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 35% of Journeyperson's rate
Supplemental Rate Per Hour: \$16.71

Sheet Metal Worker (19-30 Months)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 45% of Journeyperson's rate
Supplemental Rate Per Hour: \$23.00

Sheet Metal Worker (31-36 Months)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 55% of Journeyperson's rate
Supplemental Rate Per Hour: \$27.02

Sheet Metal Worker (37-42 Months)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 60% of Journeyperson's rate
Supplemental Rate Per Hour: \$29.06

Sheet Metal Worker (43-48 Months)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 70% of Journeyperson's rate
Supplemental Rate Per Hour: \$33.10

Sheet Metal Worker (49-54 Months)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 75% of Journeyman's rate
Supplemental Rate Per Hour: \$35.12

Sheet Metal Worker (55-60 Months)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 80% of Journeyman's rate
Supplemental Rate Per Hour: \$37.15

(Local #28)

SIGN ERECTOR

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 4)

Sign Erector - First Year: 1st Six Months

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 35% of Journeyman's rate
Supplemental Rate Per Hour: \$13.18

Sign Erector - First Year: 2nd Six Months

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 40% of Journeyman's rate
Supplemental Rate Per Hour: \$14.95

Sign Erector - Second Year: 1st Six Months

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 45% of Journeyman's rate
Supplemental Rate Per Hour: \$16.74

Sign Erector - Second Year: 2nd Six Months

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 50% of Journeyman's rate
Supplemental Rate Per Hour: \$18.52

Sign Erector - Third Year: 1st Six Months

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 55% of Journeyman's rate
Supplemental Rate Per Hour: \$24.94

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
\$220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Sign Erector - Third Year: 2nd Six Months

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 60% of Journeyperson's rate
Supplemental Rate Per Hour: \$26.87

Sign Erector - Fourth Year: 1st Six Months

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 65% of Journeyperson's rate
Supplemental Rate Per Hour: \$29.47

Sign Erector - Fourth Year: 2nd Six Months

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 70% of Journeyperson's rate
Supplemental Rate Per Hour: \$31.46

Sign Erector - Fifth Year

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 75% of Journeyperson's rate
Supplemental Rate Per Hour: \$33.43

Sign Erector - Sixth Year

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 80% of Journeyperson's rate
Supplemental Rate Per Hour: \$35.41

(Local #137)

STEAMFITTER

(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 3)

Steamfitter - First Year

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate and Supplemental Per Hour: 40% of Journeyperson's rate

Steamfitter - Second Year

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate and Supplemental Rate Per Hour: 50% of Journeyperson's rate.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Steamfitter - Third Year

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate and Supplemental Rate per Hour: 65% of Journeyperson's rate.

Steamfitter - Fourth Year

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate and Supplemental Rate Per Hour: 80% of Journeyperson's rate.

Steamfitter - Fifth Year

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate and Supplemental Rate Per Hour: 85% of Journeyperson's rate.

(Local #638)

STONE MASON - SETTER

(Ratio Apprentice of Journeyperson: 1 to 1, 1 to 2)

Stone Mason - Setters - First 750 Hours

Effective Period: 7/1/2015 - 6/30/2016

Wage and Supplemental Rate Per Hour: 50% of Journeyperson's rate

Stone Mason - Setters - Second 750 Hours

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate Per Hour: 60% of Journeyperson's rate

Supplemental Rate Per Hour: 50% of Journeyperson's rate

Stone Mason - Setters - Third 750 Hours

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate Per Hour: 70% of Journeyperson's rate

Supplemental Rate Per Hour: 50% of Journeyperson's rate

Stone Mason - Setters - Fourth 750 Hours

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate Per Hour: 80% of Journeyperson's rate

Supplemental Rate Per Hour: 50% of Journeyperson's rate

Stone Mason - Setters - Fifth 750 Hours

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 90% of Journeyperson's rate
Supplemental Rate Per Hour: 50% of Journeyperson's rate

Stone Mason - Setters - Sixth 750 Hours

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 100% of Journeyperson's rate
Supplemental Rate Per Hour: 50% of Journeyperson's rate

(Bricklayers District Council)

TAPER

(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 4)

Drywall Taper - First Year

Effective Period: 7/1/2015 - 6/30/2016
Wage and Supplemental Rate Per Hour: 40% of Journeyperson's rate

Drywall Taper - Second Year

Effective Period: 7/1/2015 - 6/30/2016
Wage and Supplemental Rate Per Hour: 60% of Journeyperson's rate

Drywall Taper - Third Year

Effective Period: 7/1/2015 - 6/30/2016
Wage and Supplemental Rate Per Hour: 80% of Journeyperson's rate

(Local #1974)

TILE LAYER - SETTER

(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 4)

Tile Layer - Setter - First 750 Hours

Effective Period: 7/1/2015 - 6/30/2016

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Wage and Supplemental Rate Per Hour: 50% of Journeyperson's rate

Tile Layer - Setter - Second 750 Hours

Effective Period: 7/1/2015 - 6/30/2016

Wage and Supplemental Rate Per Hour: 55% of Journeyperson's rate

Tile Layer - Setter - Third 750 Hours

Effective Period: 7/1/2015 - 6/30/2016

Wage and Supplemental Rate Per Hour: 65% of Journeyperson's rate

Tile Layer - Setter - Fourth 750 Hours

Effective Period: 7/1/2015 - 6/30/2016

Wage and Supplemental Rate Per Hour: 75% of Journeyperson's rate

Tile Layer - Setter - Fifth 750 Hours

Effective Period: 7/1/2015 - 6/30/2016

Wage and Supplemental Rate Per Hour: 85% of Journeyperson's rate

Tile Layer - Setter - Sixth 750 Hours

Effective Period: 7/1/2015 - 6/30/2016

Wage and Supplemental Rate Per Hour: 95% of Journeyperson's rate

(Local #7)

TIMBERPERSON

(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 6)

Timberperson - First Year

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate Per Hour: 40% of Journeyperson's rate

Supplemental Rate Per Hour: \$31.54

Timberperson - Second Year

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate Per Hour: 50% of Journeyperson's rate

Supplemental Rate Per Hour: \$31.54

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Timberperson - Third Year

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 65% of Journeyperson's rate
Supplemental Rate Per Hour: \$31.54

Timberperson - Fourth Year

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate Per Hour: 80% of Journeyperson's rate
Supplemental Rate Per Hour: \$31.54

(Local #1536)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§6-109 PREVAILING WAGE SCHEDULE

NYC ADMINISTRATIVE CODE § 6-109 SCHEDULE OF "LIVING WAGES"

Contractors who provide the following services to the City of New York must post a copy of this Living Wage Schedule at their work site(s) as required by New York City Administrative Code § 6-109:

- Building Services,
- Day Care Services,
- Food Services,
- Head Start Services,
- Homecare Services,
- Services to Persons with Cerebral Palsy, and
- Temporary Services.

In accordance with NYC Administrative Code § 6-109, the Comptroller of the City of New York promulgated this schedule of living wages for the above services on contracts for non-emergency work in excess of the small purchase limit set by the Procurement Policy Board; contracting agencies must annex this schedule to such contracts.

This schedule is a compilation of separate determinations of the prevailing rate of wage and supplements made by the Comptroller for each trade classification listed herein pursuant to New York City Administrative Code section 6-109. The source of the wage and supplement rates, whether a collective bargaining agreement, survey data or other, is listed at the end of each classification.

A city service contractor or subcontractor that provides homecare services, day care services, head start services or services to persons with cerebral palsy must pay its covered employees that directly render such services in performance of the city service contract or subcontract no less than the living wage and must provide its employees health benefits (supplemental benefits) or must supplement their hourly wage rate by an amount no less than the health benefits supplement rate. This requirement applies for each hour that the employee works performing the city service contract or subcontract.

A city service contractor or subcontractor that provides building services, food services or temporary services must pay its employees that are engaged in performing the city service contract or subcontract no less than the living wage or the prevailing wage, whichever is greater. Where the living wage is greater than the prevailing wage, the city service contractor or subcontractor must either provide its employees health benefits or must supplement their hourly wage rate by an amount no less than the health benefits supplement rate. Where the prevailing wage is greater than the living wage, the city service contractor or subcontractor must provide its employees the prevailing wage and supplements. These requirements apply for each hour that the employee works performing the city service contract or subcontract.

The appropriate schedule of living wages must be posted at all work sites pursuant to NYC Administrative Code 6-109.

The schedule is applicable for work performed during the effective period, unless otherwise noted. You will be notified of any changes to this schedule by addenda published on our web site www.comptroller.nyc.gov. Schedules for future one-year periods will be published annually in the City Record on or about July 1st of each succeeding year and on our web site www.comptroller.nyc.gov.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§6-109 PREVAILING WAGE SCHEDULE

The living wage rate and the health benefit supplement rate are known through June 30 of each year and those rates are listed in this schedule.

The living wage rates listed in this schedule may not include all hourly wage calculations for overtime, shift differential, Holiday, Saturday, Sunday or other premium time work. Similarly, this schedule does not set forth every living wage practice with which employers must comply.

Some of the rates in this schedule are based on collective bargaining agreements. These agreements are available for inspection by appointment. Requests for appointments may be made by calling (212) 669-4443, Monday through Friday between the hours of 9 a.m. and 5 p.m.

Answers to questions concerning prevailing wage practices may be obtained from the Classification Unit by calling (212) 669-7974. Please direct all other compliance issues to; Bureau of Labor Law, Attn: Wasyl Kinach, P.E., Office of the Comptroller, 1 Centre Street, Room 1122, New York, N.Y. 10007; Fax (212) 669-4002.

Contractors are solely responsible for maintaining original payroll records, which delineate, among other things, the hours each employee worked within a given classification. Contractors using rates and/or classifications not promulgated by the Comptroller do so at their own risk. Additionally, prior to bid, an agency's chief contracting officer must contact the Bureau of Labor Law to obtain a wage determination for a work classification not published in this schedule.

The information listed below is intended to assist you in meeting your living wage and prevailing wage obligation. Contractors are advised to review the Comptroller's Living Wage Schedule prior to submitting a bid for City work. Any wage rate error made by the contracting agency in the contract documents will not preclude a finding against the contractor for an underpayment of the applicable living wage or the applicable prevailing wage.

This schedule sets forth the living wage and benefit rates required to be annexed to and form part of the contract specifications for work covered by New York City Administrative Code § 6-109. Contractors performing such work are required to pay not less than the rates specified in this schedule for the applicable trade or occupation.

Benefits are paid for EACH HOUR WORKED unless otherwise noted.

Wasyl Kinach, P.E.
Director of Classifications
Bureau of Labor Law

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BUILDING CLEANER AND MAINTAINER (OFFICE)

For the above building service classification, see the Labor Law Section 230 Schedule.

BUILDING CLEANER AND MAINTAINER (RESIDENTIAL)

For the above building service classification, see the Labor Law Section 230 Schedule.

CLEANER (PARKING GARAGE)

For the above building service classification, see the Labor Law Section 230 Schedule.

DAY CARE SERVICES

Day Care Services

'Day Care Services' means provision of day care services through the city's center-based day care program administered under contract with the city's Administration for Children's Services. No other day care programs shall be covered, including family-based day care programs administered by city-contracted day care centers.

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$10.00

Supplemental Benefit Rate per Hour: \$1.50

(NYC Administrative Code §6-109)

FOOD SERVICE EMPLOYEES

Cook

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§6-109 PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$16.63

Supplemental Benefit Rate per Hour: \$1.70

Cafeteria Attendant

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$11.67

Supplemental Benefit Rate per Hour: \$1.70

Counter Attendant

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$11.22

Supplemental Benefit Rate per Hour: \$1.70

Kitchen Helper / Dishwasher

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$11.04

Supplemental Benefit Rate per Hour: \$1.70

Overtime

Time and one half the regular hourly rate after 40 hours in any work week.

(Based on data from NYS Department of Labor Occupational Employment Statistics and US Department of Labor Bureau of Labor Statistics)

GARDENER

For the above building service classification, see the Labor Law Section 230 Schedule.

HEAD START SERVICES

Head Start Services

'Head Start Services' means provision of head start services through the city's center-based head start program administered under contract with the city's Administration for Children's Services. No other head start programs shall be covered.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§6-109 PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$10.00
Supplemental Benefit Rate per Hour: \$1.50

(NYC Administrative Code §6-109)

HEMOCARE SERVICES

Home Care Services

'Homecare Services' means the provision of homecare services under the city's Medicaid Personal Care/Home Attendant or Housekeeping Programs, including but not limited to the In-Home Services for the Elderly Programs administered by the Department for the Aging.

For homecare services provided under the Personal Care Services program, the wage and supplemental benefit rate above shall apply only as long as the state and federal government maintain their combined aggregate proportionate share of funding and approved rates for homecare services in effect as of the date of the enactment of this section.

For contractors or subcontractors providing homecare services, the supplemental benefit rate may be waived by the terms of a bona fide collective bargaining agreement with respect to employees who have never worked a minimum of eighty (80) hours per month for two consecutive months for that covered employer, but such provision may not be waived for any employee once a minimum of eighty (80) hours for two consecutive months has been achieved.

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: \$10.00
Supplemental Benefit Rate per Hour: \$1.50

(NYC Administrative Code §6-109)

SECURITY GUARD (ARMED)

For the above building service classification, see the Labor Law Section 230 Schedule.

SECURITY GUARD (UNARMED)

For the above building service classification, see the Labor Law Section 230 Schedule.

SERVICES TO PERSONS WITH CEREBRAL PALSY

Services To Person With Cerebral Palsy

'Services to Persons with Cerebral Palsy' means provision of services which enable persons with cerebral palsy and related disabilities to lead independent and productive lives through an agency that provides health care, education, employment, housing and technology resources to such persons under contract with the city or the department of education.

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$10.00

Supplemental Benefit Rate per Hour: \$1.50

(NYC Administrative Code §6-109)

TEMPORARY OFFICE SERVICES

Administrative Assistant

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$33.89

Supplemental Benefit Rate per Hour: None

Cashier

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$11.50

Supplemental Benefit Rate per Hour: None

Clerk (various)

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$15.50

Supplemental Benefit Rate per Hour: None

Computer Assistant

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$20.12

Supplemental Benefit Rate per Hour: None

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§6-109 PREVAILING WAGE SCHEDULE

Data Entry Operator

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: **\$16.38**
Supplemental Benefit Rate per Hour: None

Receptionist

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: **\$15.29**
Supplemental Benefit Rate per Hour: None

Secretary (various)

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: **\$19.58**
Supplemental Benefit Rate per Hour: None

Word Processor

Effective Period: 7/1/2015 - 6/30/2016
Wage Rate per Hour: **\$18.32**
Supplemental Benefit Rate per Hour: None

Overtime

Time and one half the regular hourly rate after 40 hours in any work week.

(Based on data from NYS Department of Labor Occupational Employment Statistics and US Department of Labor Bureau of Labor Statistics or NYC Administrative Code §6-109)

WINDOW CLEANER

For the above building service classification, see the Labor Law Section 230 Schedule.



Leonard A. Mancusi
SENIOR ASSISTANT COMPTROLLER

THE CITY OF NEW YORK
OFFICE OF THE COMPTROLLER
1 CENTRE STREET ROOM 1120
NEW YORK, N.Y. 10007-2341

TELEPHONE: (212) 669-3622
FAX NUMBER: (212) 669-8499

ALAN G. HEVESI
COMPTROLLER

MEMORANDUM

November 6, 2000

To Agency Chief Contracting Officers

From: Leonard A. Mancusi

Re: Security at Construction Sites

Prior to the enactment of Administrative Code §6-109, security guards on construction sites were not subject to prevailing wages. Security guards under the New York State labor law are covered under §230 which provides that prevailing wages are to be paid for security guards in existing buildings. §6-109 of the Administrative Code which was enacted in 1996 closed this loophole by including all security guards working pursuant to a city contract as a prevailing wage trade.

Although some construction contract boilerplate language has been amended to include §6-109, sub-contractors performing security services have advised us that they were not aware of this provision and, since traditionally, security guards were not a covered trade on construction sites, and they were not advised by a prime contractor that they would have to pay prevailing wages, they have not been doing so.

To avoid the possibility of issuing stop payments against prime contractors for the failure of their security service sub-contractors to pay

prevailing wages, we suggest that you write to all your existing security guard sub-contractors and their primes and in the future, upon approval of a security guard sub-contractor, advise the contractors of their obligation to pay prevailing wages under §6-109 of the Administrative Code.

As always, your cooperation is appreciated.

LAM:er
ACCO.SECURITY AT SITES





Department of Design and Construction

INFRASTRUCTURE DIVISION BUREAU OF DESIGN

VOLUME 2 OF 3

PROJECT ID: CONISPH2B

FOR THE CONSTRUCTION OF STORM AND SANITARY SEWERS AND TRUNK WATER MAINS AND APPURTENANCES IN CONEY ISLAND AREA PHASE 2B

INCLUDING WATER MAIN WORK

Together With All Work Incidental Thereto BOROUGH OF BROOKLYN CITY OF NEW YORK

Bedford Construction Inc Contractor 85D15B0153001 / 85D2013SE0045

Dated May 13, 2016

APPROVED AS TO FORM CERTIFIED AS TO LEGAL AUTHORITY

[Signature]

Acting Corporation Counsel

PD 6/11/15

Dated Jarrell, 2015



**THE CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
DIVISION OF INFRASTRUCTURE**

30-30 THOMSON AVENUE
LONG ISLAND CITY, NEW YORK 11101-3045
TELEPHONE (718) 391-1000
WEBSITE www.nyc.gov/buildnyc

VOLUME 3 OF 3

**SCHEDULE A
ADDENDA NOS. 1 TO 6**

FOR FURNISHING ALL LABOR AND MATERIALS NECESSARY AND REQUIRED FOR:

PROJECT ID: CONISPH2B

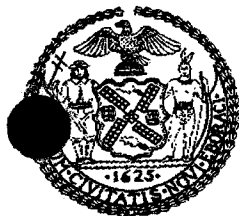
**FOR THE CONSTRUCTION OF STORM AND SANITARY SEWERS AND
TRUNK WATER MAINS AND APPURTENANCES IN CONEY ISLAND AREA
PHASE 2B**

INCLUDING WATER MAIN WORK

Together With All Work Incidental Thereto
**BOROUGH OF BROOKLYN
CITY OF NEW YORK**

FOR THE DEPARTMENT OF ENVIRONMENTAL PROTECTION
PREPARED BY
IN-HOUSE DESIGN

April 17, 2015



15-161



SPECIFICATIONS AND STANDARDS OF NEW YORK CITY

The following New York City Department of Transportation (NYCDOT) reference documents are available on-line at:

http://www.nyc.gov/html/ddc/html/pubs/pubs_infrastdts.shtml or for purchase between 9:00 A.M. and 3:00 P.M. at 55 Water St., Ground Floor, NYC, N.Y. 10041. Contact: Ms Vivian Valdez, Tel. (212) 839-9434

1. NYCDOT Standard Highway Specifications, November 1, 2010
2. NYCDOT Standard Highway Details of Construction, July 1, 2010
3. NYCDOT Division of Street Lighting Specifications
4. NYCDOT Division of Street Lighting Standard Drawings
5. NYCDOT Standard Specifications for Traffic Signals
6. NYCDOT Standard Drawings for Traffic Signals

The following reference documents for New York City Department of Environmental Protection (NYCDEP) are available on-line at:

http://www.nyc.gov/html/ddc/html/pubs/pubs_infrastdts.shtml or for pick up between 8:00 A.M. and 4:00 P.M. at 30-30 Thomson Avenue, 3rd Floor, Division of Infrastructure, Long Island City, N.Y. 11101.

Contact: Mr. Waqar Ahmad, Tel. (718) 391-2056

1. NYCDEP Standard Sewer and Water Main Specifications, July 1, 2014
2. NYCDEP Instructions for Concrete Specifications, Jan. 92
3. NYCDEP General Specification 11-Concrete, November 1991
4. NYCDEP Sewer Design Standards, (September 2007) Revised January 2009

The following reference documents for New York City Department of Environmental Protection (NYCDEP) are available on-line at:

http://www.nyc.gov/html/ddc/html/pubs/pubs_infrastdts.shtml or for pick up between 8:00 A.M. and 4:00 P.M. at 30-30 Thomson Avenue, 3rd Floor, Division of Infrastructure, Long Island City, N.Y. 11101.

Contact: Mr. Robert Kuhlmann, Tel. (718) 391-2145

1. NYCDEP Water Main Standard Drawings
2. Specifications for Trunk Main Work, dated July 2014
3. Standards for Green Infrastructure, latest version, available only on-line at: http://www.nyc.gov/html/dep/pdf/green_infrastructure/bioswales-standard-designs.pdf

Water main work material specifications are available at the Department of Environmental Protection, 59-17 Junction Boulevard, 3rd Floor Low-Rise Building, Flushing, N.Y. 11373-5108.

Contact: Mr. Tarlock Sahansra, P.E., Tel. (718) 595-5302

E-mail: TSAHANSRA@DEP.NYC.GOV

Standard Specifications and Drawings for New York City Fire Department Communications facilities are available from the FDNY Facilities Management Bureau, Plant Operations Engineering, 316 Sgt. Beers Avenue Cluster 1 Box 16, Fort Totten, N.Y. 11359.

Contact: Mr. Ed Durkin, Tel. (718) 281-3933

Tree Planting Standards of the City of New York Parks & Recreation are available at the following Department of Parks & Recreation website:

<http://www.nycgovparks.org/pagefiles/53/Tree-Planting-Standards.pdf>

SPECIFICATIONS AND STANDARDS OF PRIVATE UTILITIES

The Following reference document for Private Utility Work is available for pick up between 8:30 A.M. and 4:00 P.M. at 30-30 Thomson Avenue, First Floor Bid Procurement Room, L.I.C., N.Y. 11101.

1. CET SPECIFICATIONS AND SKETCHES dated November 2010

(NO TEXT ON THIS PAGE)

SCHEDULE "A"**(GENERAL CONDITIONS TO CONSTRUCTION CONTRACT)**
(INCLUDING GENERAL CONDITIONS RELATED TO ARTICLE 22 - INSURANCE)**PART I. REQUIRED INFORMATION**

| | |
|--|--|
| <p align="center"><u>INFORMATION FOR BIDDERS SECTION 26</u> <u>BID SECURITY</u></p> <p>The Contractor shall obtain a bid security in the amount indicated to the right.</p> | <p>Required provided the TOTAL BID PRICE set forth on the Bid Form is \$1,000,000 or more.</p> <p>Certified Check: 2% of Bid Amount or Bond: 10% of Bid Amount</p> |
| <p align="center"><u>INFORMATION FOR BIDDERS SECTION 26</u> <u>PERFORMANCE AND PAYMENT BONDS</u></p> <p>The Contractor shall obtain performance and payment bonds in the amount indicated to the right.</p> | <p>Required for contracts in the amount of \$1,000,000 or more.</p> <p>Performance Security and Payment Security shall each be in an amount equal to 100% of the Contract Price.</p> |
| <p align="center"><u>CONTRACT ARTICLE 14.</u> <u>DATE FOR SUBSTANTIAL COMPLETION</u></p> <p>The Contractor shall substantially complete the Work in the number of calendar days indicated to the right.</p> | <p>See Page SA-4</p> |
| <p align="center"><u>CONTRACT ARTICLE 15.</u> <u>LIQUIDATED DAMAGES</u></p> <p>If the Contractor fails to substantially complete the Work within the time fixed for substantial completion plus authorized time extensions or if the Contractor, in the sole determination of the Commissioner, has abandoned the Work, the Contractor shall pay to the City the amount indicated to the right.</p> | <p>For Each Consecutive Calendar Day Over Substantial Completion Time: <u>\$1,500.00</u></p> |
| <p align="center"><u>CONTRACT ARTICLE 17.</u> <u>SUB-CONTRACTOR</u></p> <p>The Contractor shall not make subcontracts totaling an amount more than the percentage of the total Contract price indicated to the right.</p> | <p>Not to Exceed <u>35%</u> of the Contract Price</p> |
| <p align="center"><u>CONTRACT ARTICLE 21.</u> <u>RETAINAGE</u></p> <p>The Commissioner shall deduct and retain until the substantial completion of the Work the percent value of the Work indicated to the right.</p> | <p><u>5%</u> of the Value of the Work</p> |
| <p align="center"><u>CONTRACT ARTICLE 22.</u> <u>(Per Directions Indicated To The Right)</u></p> | <p>See pages SA-5 through SA-9</p> |

| | |
|---|---|
| <p align="center"><u>CONTRACT ARTICLE 24.</u> <u>DEPOSIT GUARANTEE</u></p> <p>As security for the faithful performance of its obligations, the Contractor, upon filing its requisition for payment on Substantial Completion, shall deposit with the Commissioner a sum equal to the percentage of the Contract price indicated to the right.</p> | <p align="center"><u>1%</u> of Contract Price</p> |
| <p align="center"><u>CONTRACT ARTICLE 24.</u> <u>PERIOD OF GUARANTEE</u></p> <p>Periods of maintenance and guarantee other than the period set forth in Article 24.1 are indicated to the right.</p> | <p align="center">Eighteen (18) Months, excluding Trees Twenty-Four (24) Months for Tree Planting Thirty-Six (36) Months for BMP Landscaping Work</p> |
| <p align="center"><u>CONTRACT ARTICLE 74.</u> <u>STATEMENT OF WORK</u></p> <p>The Contractor shall furnish all labor and materials and perform all Work in strict accordance with the Contract Drawings, Specifications, and all Addenda thereto.</p> | <p align="center">See Contract Article 74</p> |
| <p align="center"><u>CONTRACT ARTICLE 75.</u> <u>COMPENSATION TO BE PAID TO CONTRACTOR</u></p> <p>The City shall pay and the Contractor shall accept in full consideration for the performance of the Contract, subject to additions and deductions as provided in Contract Article 75, this said sum being the amount at which the Contract was awarded to the Contractor at a public letting thereof, based upon the Contractor's bid for the Contract.</p> | <p align="center">See Contract Article 75</p> |
| <p align="center"><u>CONTRACT ARTICLE 78.</u> <u>PARTICIPATION BY MINORITY-OWNED AND WOMEN-OWNED BUSINESS ENTERPRISES IN CITY PROCUREMENT</u></p> | <p align="center">See M/WBE Utilization Plan in the Bid Booklet</p> |

| | |
|---|---|
| <p style="text-align: center;"><u>STANDARD HIGHWAY SPECIFICATIONS</u> <u>SECTION 6.40</u> <u>LIQUIDATED DAMAGES FOR</u> <u>ENGINEER'S FIELD OFFICE</u></p> <p>If the Contractor fails to satisfactorily provide the field office and all equipment specified in Section 6.40 - Engineer's Field Office, and/or if a cited deficiency exceed seventy two (72) hours after notice from the Engineer in writing, or is permitted to recur, liquidated damages will be assessed in the amount specified herein for each subsequent calendar day or part thereof that a cited deficiency resulting in nonpayment, as described in Section 6.40.5, is not corrected.</p> | <p>For Each Calendar Day of Deficiency: <u>\$250.00</u></p> |
| <p style="text-align: center;"><u>STANDARD HIGHWAY SPECIFICATIONS</u> <u>SECTION 6.70</u> <u>LIQUIDATED DAMAGES FOR</u> <u>MAINTENANCE AND PROTECTION OF TRAFFIC</u></p> | <p>For each instance of failure to comply with the Maintenance and Protection of Traffic requirements within three (3) hours after written notice from the Engineer: <u>\$250.00</u></p> <p>For each and every hour of failing to open the entire width of roadway to traffic the morning following a night/weekend work operation: <u>\$500.00</u></p> |
| <p style="text-align: center;"><u>STANDARD HIGHWAY SPECIFICATIONS</u> <u>SECTION 7.13</u> <u>LIQUIDATED DAMAGES FOR</u> <u>MAINTENANCE OF SITE</u></p> <p>If the Contractor fails to comply, within three (3) consecutive hours after written notice from the Engineer, with the requirements of Section 7.13 - Maintenance of Site, the Contractor shall pay to the City of New York, until such notice has been complied with or rescinded, the sum specified above per calendar day, for each instance of such failure, as liquidated damages and not as a penalty, for such default.</p> | <p>For Each Calendar Day, for Each Occurrence: <u>\$250.00</u></p> |

Date for Substantial Completion (Reference: Article 14)

The Contractor shall substantially complete the Work within the Final Contract Duration determined in accordance with the terms and conditions set forth herein.

The Base Contract Duration for this project is 910 consecutive calendar days ("ccds").

The Final Contract Duration shall be the Base Contract Duration when a check mark is indicated before the word "NO", below, and shall be the Base Contract Duration adjusted by the table set forth below when a check mark is indicated before the word "YES", below.

YES NO

When the Final Contract Duration is indicated above to be adjusted by the table below, the table may increase the Base Contract Duration depending on the date of scheduled substantial completion to avoid a scheduled substantial completion of the Work during the winter months. The date of the scheduled substantial completion shall be determined by adding the Base Contract Duration to the date specified to commence work in the written Notice To Proceed. The Final Contract Duration shall then be determined as follows:

- (a) Find the row that corresponds to the month of the substantial completion based on the Base Contract Duration added to the date specified to commence work in the written Notice To Proceed.
- (b) Find the number of days to be added to the Base Contract Duration in the table below. Add that number of days to the Base Contract Duration to obtain the Final Contract Duration in consecutive calendar days.

| Month Of Substantial Completion Based On The Base Contract Duration | Number Of Days Of Adjustment |
|---|------------------------------|
| January | 150 |
| February | 120 |
| March | 90 |
| April | 60 |
| May | 30 |
| June | 0 |
| July | 0 |
| August | 0 |
| September | 0 |
| October | 0 |
| November - December 15 | 0 |
| December 16 - December 31 | 180 |

In addition, should Item No. 9.30 - STORM WATER POLLUTION PREVENTION exist in the Contract and the required Storm Water Pollution Prevention Plan (SWPPP) does not conform to NYSDEC's recommended Standards, an additional 60-ccds shall be added to the above Final Contract Duration.

(GENERAL CONDITIONS RELATING TO ARTICLE 22 - INSURANCE)

PART II. TYPES OF INSURANCE, MINIMUM LIMITS AND SPECIAL CONDITIONS

Note: All certificate(s) of insurance submitted pursuant to Contract Article 22.3.3 must be accompanied by a Certification by Broker consistent with Part III below and include the following information:

- For each insurance policy, the name and NAIC number of issuing company, number of policy, and effective dates;
- Policy limits consistent with the requirements listed below;
- Additional insureds or loss payees consistent with the requirements listed below; and
- The number assigned to the Contract by the City (in the "Description of Operations" field).

Insurance indicated by a blackened box (■) or by an X in a box (☒) to left will be required under this contract

| <p align="center"><u>TYPES OF INSURANCE</u> (per Article 22 in its entirety, including listed paragraph)</p> | <p align="center"><u>MINIMUM LIMITS AND SPECIAL CONDITIONS</u></p> |
|--|---|
| <p>■ Commercial General Liability Art. 22.1.1</p> | <p>The minimum limits shall be \$3,000,000 per Occurrence and \$6,000,000 per Project Aggregate applicable to this Contract.</p> <p>Additional Insureds:</p> <p>(1) <u>City of New York, including its officials and employees, with coverage at least as broad as ISO Form CG 20 10 and CG 20 37.</u></p> <p>(2) <u>All person(s) or organization(s), if any, that Article 22.1.1(b) of the Contract requires to be named as Additional Insured(s), with coverage at least as broad as ISO Form CG 20 26. The Additional Insured endorsement shall either specify the entity's name, if known, or the entity's title (e.g., Project Manager).</u></p> <p>(3) <u>The New York City Transit Authority (NYCTA), Manhattan and Bronx Surface Transit Operation Authority (MaBSTOA), Staten Island Rapid Transit Operation Authority (SIRTOA), Metropolitan Transportation Authority (MTA), its subsidiaries and affiliated companies. The Contractor shall furnish two (2) certificates of insurance to and the policy shall be endorsed to provide thirty (30) days advance notice to the Director, Risk Management, MTA Risk and Insurance Management Standards, Enforcement and Claims Unit, 2 Broadway, 21st Floor, New York, NY 10004, of any material change and/or cancellation.</u></p> <p>(4) <u>National Grid</u></p> |

| | | |
|--|--|--|
| <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Workers' Compensation <input checked="" type="checkbox"/> Disability Benefits Insurance <input checked="" type="checkbox"/> Employers' Liability <input type="checkbox"/> Jones Act <input type="checkbox"/> U.S. Longshoremen's and Harbor Workers Compensation Act | <p>Art. 22.1.2 Art. 22.1.2 Art. 22.1.2 Art. 22.1.3 Art. 22.1.3</p> | <p>Workers' Compensation, Employers' Liability, and Disability Benefits Insurance: Statutory per New York State law without regard to jurisdiction.</p> <p>Note: The following forms are acceptable: (1) New York State Workers' Compensation Board Form No. C-105.2, (2) State Insurance Fund Form No. U-26.3, (3) New York State Workers' Compensation Board Form No. DB-120.1 and (4) Request for WC/DB Exemption Form No. CE-200. The City will not accept an ACORD form as proof of Workers' Compensation or Disability Insurance.</p> <p>Jones Act and U.S. Longshoremen's and Harbor Workers' Compensation Act: Statutory per U.S. Law.</p> <p><input checked="" type="checkbox"/> Additional Requirements:</p> <p>(1) <u>NYCTA "OUTSIDE CONTRACT" INSURANCE REQUIREMENTS: Workers' Compensation Insurance (including Employer's Liability Insurance) with limits of not less than \$2,000,000, which limit may be met by a combination of primary and excess insurance meeting the statutory limits of New York State.</u></p> <p>(2) <u>Two (2) certificates of such insurance shall be furnished to the Director, Risk Management, MTA Risk and Insurance Management Standards, Enforcement and Claims Unit, 2 Broadway, 21st Floor, New York, NY 10004.</u></p> |
| <ul style="list-style-type: none"> <input type="checkbox"/> Builders' Risk | <p>Art. 22.1.4</p> | <p><u>100% of Total Value of Work</u></p> <p>Contractor the Named Insured; the City both an Additional Insured and one of the loss payees as its interests may appear.</p> <p>If the Work does not involve construction of a new building or gut renovation work, the Contractor may provide an installation floater in lieu of Builders Risk insurance.</p> <p>Note: Builders Risk Insurance may terminate upon Substantial Completion of the Work in its entirety.</p> |
| <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Commercial Auto Liability | <p>Art. 22.1.5</p> | <p><u>\$2,000,000 per accident combined single limit</u></p> <p>If vehicles are used for transporting hazardous materials, the Contractor shall provide pollution liability broadened coverage for covered vehicles (endorsement CA 99 48) as well as proof of MCS 90.</p> <p>Additional Insureds:</p> <p>(1) <u>City of New York, including its officials and employees.</u></p> <p>(2) <u>The New York City Transit Authority (NYCTA), Manhattan and Bronx Surface Transit Operation Authority (MaBSTOA), Staten Island Rapid Transit Operation Authority (SIRTOA), Metropolitan Transportation Authority (MTA), its subsidiaries and affiliated companies.</u></p> <p>(3)</p> |

| | | |
|--|----------------|---|
| <input type="checkbox"/> Contractors Pollution Liability | Art. 22.1.6 | \$ _____ per occurrence |
| | | \$ _____ aggregate |
| | | Additional Insureds: |
| | | (1) <u>City of New York, including its officials and employees.</u> |
| | | (2) |
| | | (3) |
| <input type="checkbox"/> Marine Protection and Indemnity | Art. 22.1.7(a) | \$ _____ each occurrence |
| | | \$ _____ aggregate |
| | | Additional Insureds: |
| | | (1) <u>City of New York, including its officials and employees.</u> |
| | | (2) |
| | | (3) |
| <input type="checkbox"/> Hull and Machinery Insurance | Art. 22.1.7(b) | \$ _____ per occurrence |
| | | \$ _____ aggregate |
| | | Additional Insureds: |
| | | (1) <u>City of New York, including its officials and employees.</u> |
| | | (2) |
| | | (3) |
| <input type="checkbox"/> Marine Pollution Liability | Art. 22.1.7(c) | \$ _____ per occurrence |
| | | \$ _____ aggregate |
| | | Additional Insureds: |
| | | (1) <u>City of New York, including its officials and employees.</u> |
| | | (2) |
| | | (3) |

| | |
|---|--|
| <p>[OTHER] Art. 22.1.8</p> <p>■ Railroad Protection Liability Policy</p> <p>(ISO-RIMA or equivalent form) approved by Permitter covering the work to be performed at the designated site and affording protection for damages arising out of bodily injury or death, physical damage to or destruction of property, including damage to the Insured's own property and conforming to the following:</p> <ul style="list-style-type: none"> • Policy Endorsement CG 28 31 - Pollution Exclusion Amendment is required to be endorsed onto the policy when environmental-related work and/or exposures exist. • Indicate the Name and address of the Contractor to perform the work, the Contract Number and the name of the railroad property where the work is being performed and the Agency Permit. • Evidence of Railroad Protective Liability Insurance, must be provided in the form of the <u>Original Policy. A detailed Insurance Binder (ACORD or Manuscript Form) will be accepted pending issuance of the Original Policy, which must be provided within thirty (30) days of the Binder Approval.</u> | <p>\$2,000,000 per occurrence</p> <p>\$6,000,000 annual aggregate</p> <p>Named Insureds:</p> <p>(1) <u>The New York City Transit Authority (NYCTA), Manhattan and Bronx Surface Transit Operation Authority (MaBSTOA), Staten Island Rapid Transit Operation Authority (SIRTOA), MTA Capital Construction Company, Metropolitan Transportation Authority (MTA), including its subsidiaries and affiliates, and the City of New York (as Owner) and all other indemnified parties.</u></p> <p>(2)</p> |
|---|--|

| | |
|---|--|
| <p>[OTHER] Art. 22.1.8</p> <p>■ Professional Liability</p> <p>A. The Contractor's Professional Engineer shall maintain and submit evidence of Professional Liability Insurance in the minimum amount of \$1,000,000 per claim. The policy or policies shall include an endorsement to cover the liability assumed by the Contractor under this Contract arising out of the negligent performance of professional services or caused by an error, omission or negligent act of the Contractor's Professional Engineer or anyone employed by the Contractor's Professional Engineer.</p> <p>B. Claims-made policies will be accepted for Professional Liability Insurance. All such policies shall have an extended reporting period option or automatic coverage of not less than two (2) years. If available as an option, the Contractor's Professional Engineer shall purchase extended reporting period coverage effective on cancellation or termination of such insurance unless a new policy is secured with a retroactive date, including at least the last policy year.</p> | |
|---|--|

| | |
|---|---|
| <p>[OTHER] Art. 22.1.8</p> <p>■ Engineer's Field Office</p> <p>Section 6.40, Standard Highway Specifications</p> | <p>Fire insurance, extended coverage and vandalism, malicious mischief and burglary, and theft insurance coverage in the amount of \$40,000</p> |
|---|---|

| | |
|---|--|
| <p>[OTHER] Art. 22.1.8</p> <p>■ The Following Additional Insurance Must Be Provided:</p> <p><u>Umbrella/Excess Liability Insurance - The Contractor shall provide Umbrella/Excess Liability Insurance in the minimum amount of \$10,000,000 per Occurrence and \$10,000,000 in Aggregate. The policy terms and condition should be at least as broad as the underlying policies. The underlying policies should comply with the insurance provision as outlined by the contract. Defense cost should be in addition to the limit of liability. The City of New York, including its officials and employees, should be included as additional insured as respects to the noted project.</u></p> | |
|---|--|

SCHEDULE A
(GENERAL CONDITIONS TO CONSTRUCTION CONTRACT)
(GENERAL CONDITIONS RELATING TO ARTICLE 22 – INSURANCE)

PART III. CERTIFICATES OF INSURANCE

All certificates of insurance (except certificates of insurance solely evidencing Workers' Compensation Insurance, Employer's Liability Insurance, and/or Disability Benefits Insurance) must be accompanied by one of the following:

- (1) the Certification by Insurance Broker or Agent on the following page setting forth the required information and signatures;

-- OR --

- (2) copies of all policies as certified by an authorized representative of the issuing insurance carrier that are referenced in such certificate of insurance. If any policy is not available at the time of submission, certified binders may be submitted until such time as the policy is available, at which time a certified copy of the policy shall be submitted.

CERTIFICATION BY INSURANCE BROKER OR AGENT

The undersigned insurance broker represents to the City of New York that the attached Certificate of Insurance is accurate in all material respects.

[Name Of Broker or Agent (Typewritten)]

[Address Of Broker or Agent (Typewritten)]

[E-Mail Address Of Broker or Agent (Typewritten)]

[Phone Number/Fax Number Of Broker or Agent (Typewritten)]

[Signature Of Authorized Official, Broker or Agent]

[Name And Title Of Authorized Official, Broker or Agent (Typewritten)]

State of)
) ss.:
County of)

Sworn to before me this _____ day of _____, 20__

NOTARY PUBLIC FOR THE STATE OF _____

SCHEDULE "A"

(GENERAL CONDITIONS TO CONSTRUCTION CONTRACT)

PART IV. ADDRESS OF COMMISSIONER

Wherever reference is made in Article 7 or Article 22 to documents to be sent to the **Commissioner** (e.g., notices, filings, or submissions), such documents shall be sent to the address set forth below or, in the absence of such address, to the **Commissioner's** address as provided elsewhere in this **Contract**.

DDC Director, Insurance Risk Manager

30 - 30 Thomson Avenue, 4th Floor (IDCNY Building)

Long Island City, NY 11101

NO TEXT THIS PAGE

ATTACH TO CONTRACT DOCUMENTS

THE CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
INFRASTRUCTURE DIVISION
BUREAU OF DESIGN

PROJECT ID: CONISPH2B

FOR THE CONSTRUCTION OF STORM AND SANITARY SEWERS AND TRUNK WATER
MAINS AND APPURTENANCES IN CONEY ISLAND AREA PHASE 2B

INCLUDING WATER MAIN WORK

Together With All Work Incidental Thereto
BOROUGH OF BROOKLYN
CITY OF NEW YORK

ADDENDUM NO. 1

DATED: April 15, 2015

THIS ADDENDUM IS HEREBY MADE A PART OF THE CONTRACT DOCUMENTS

The New York City Department of Transportation Standard Highway Specifications, dated November 1, 2010, (which include, but are not limited to, "General Conditions", "Basic Materials of Construction", "Combined Materials of Construction", "Construction Methods", "Inspection and Testing of Materials, Adjustments for Deficiencies, and Maintenance", and "Supplemental Construction Methods"), as modified by addenda issued prior to the opening of bids, shall apply to and become a part of the contract.

All references contained herein are to the New York City Department of Transportation, Standard Highway Specifications, dated November 1, 2010. The said Specifications are hereby revised. Included hereunder are the following REVISIONS:

1. Amendments to Standard Highway Specifications, Volume I
2. Amendments to Standard Highway Specifications, Volume II, including Section 7.88 (Revised) and new Section 6.44 PO and 6.52 CG.

1. AMENDMENTS TO STANDARD HIGHWAY SPECIFICATIONS, VOLUME I

The following amendments to the Contract Requirements shall become a part of and apply to the contract:

[Added 12-09-2010]

1. Refer to Page 15, **Subsection 1.06.23. (C) CONFORMANCE WITH FEDERAL, STATE AND CITY AGENCIES;**

Add the following new paragraphs:

"The Contractor is notified that all vehicles that are owned, leased or operated by the Contractor or its subcontractors and used in connection with the Project shall comply with the following requirement:

Every truck, tractor, and tractor-trailer or semitrailer combination, having a gross vehicle weight rating of twenty-six thousand pounds or more, and a conventional cab configuration in which more than half of the engine length is forward of the foremost point of the windshield base, and the steering wheel hub is in the forward quarter of the vehicle length shall be equipped with a convex mirror on the front of such vehicle or combination of vehicles. Such convex mirror shall be adjusted so as to enable the operator of such vehicle or combination of vehicles to see all points on an imaginary horizontal line which is three feet above the road, is one foot directly forward from the midpoint of the front of such vehicle or combination of vehicles, and extends the full width of the front of such vehicle or combination of vehicles.

Any vehicle that does not comply with this provision may be prohibited from entering the Project site and/or supplying equipment or materials to the Project. The Contractor shall not be entitled to any damages as a result of such prohibition."

[Added 01-09-2011]

2. Refer to Page 240, **Subsection 4.16.5. (B) STUMP REMOVAL;**
Delete **Subsection 4.16.5. (B) STUMP REMOVAL**, in its entirety;
Substitute the following revised **Subsection 4.16.5. (B)**:

"(B) STUMP REMOVAL

1. Tree stumps designated to be removed and their roots shall be completely excavated to a minimum depth of three (3) feet below the existing grade. A portable stump cutter may be required in some locations. It may be necessary to remove concrete, asphalt, pavers, and/or other types of material surrounding the base of the stump. All excess debris, including chips from tree stumps, shall be removed and disposed of by the Contractor, away from the site prior to backfilling and the area shall be restored by completion of the workday, to the satisfaction of the Engineer. The disposal of tree stumps by burning in open fires will not be permitted.

2. All voids and excavations left after the removal of the stump and roots shall be backfilled to grade with clean earth fill. Fill shall be placed and compacted to a minimum of 95 percent of Standard Proctor Maximum Density by acceptable methods to the satisfaction of the Engineer. Where paving blocks exist, they are to be reset to the existing grade as directed.

3. Maximum safety and care must be used by Contractor during stump removal. The Contractor shall carefully protect against damage all existing trees, plants, curbs, sidewalks and utilities and other features to remain. The Contractor is responsible for locating and protecting underground utilities from damage during stump removal procedures. During stump grinding operations, plywood must be used to protect adjacent vehicles, real property, and pedestrians. If, when removing stumps, existing sidewalks or curbs are disturbed, the Contractor shall restore and/or reset these sidewalks and curbs, at no additional cost to the City. Restoration work shall be done to match the existing, to the satisfaction of the Engineer. All damaged trees, curbs, sidewalks, real property, vehicles and utilities must be addressed within three (3) days."

[Added 04-18-2011]

3. Refer to Pages 218 and 219, **Subsection 4.13.4.(H) PIGMENT;**
Delete the first three (3) paragraphs on page 219:
Substitute the following revised three (3) paragraphs:

"Where the color of the concrete is required to simulate the color of dark gray bluestone, the concrete shall be integrally pigmented to produce a gray color equivalent to: Davis Colors No. 884-3%; Lansco Color No. 437 "Strong Black" 5 lbs. per 94 lbs. Light Grey Portland Cement and 3 parts sand; L.M. Scofield "Cool Black No. 4"; Bayferrox Limestone 330, 2 lbs. per 94 lbs. Light Gray Portland Cement; or an approved equivalent, unless otherwise specified.

Where the color of the concrete is required to simulate the color of light to medium gray granite, the concrete shall be integrally pigmented to produce a gray color equal to: Davis Colors No. 884-1%; Lansco Color No. 437 "Strong Black" 2.5 lbs. per 94 lbs. Light Grey Portland Cement and 3 parts sand; L.M. Scofield "Cool Black No. 1"; Bayferrox Silver 330, 1 lb. per 94 lbs. Light Gray Portland Cement; or an approved equivalent, unless otherwise specified.

Where the sidewalk is designated to have a saw cut joint finish the color of the concrete shall be integrally pigmented to produce a gray color equivalent to L.M. Scofield "Landmarks Grey" K-157-4; L.M. Scofield "Cool Black No. 4"; Davis Colors No. 884-3%; Lansco Color No. 437 "Strong Black" 5 lbs. per 94 lbs. Light Grey Portland Cement and 3 parts sand; Bayferrox NYC Landmark Commission Gray, 3.5 lbs. per 94 lbs. Light Gray Portland Cement; or an approved equivalent, unless otherwise specified."

[Added 07-01-2011]

4. Refer to Page 14, **Subsection 1.06.23.(A) PERMITS;**
Delete line (b) under the first paragraph;
Substitute the following text:

(b) Any planned work requiring a DOT Construction Permit that may potentially be within 100 feet of a bridge structure will be placed on a Bridge Hold. If any proposed work is within 100 feet of a bridge structure, permittees must submit a scaled drawing showing the work and exact location, along with the following:

- Plan layout of the project area.
- The scope of work.
- The contractor's means and methods.
- Indicate if work will be done of the bridge itself or its abutments, and the type of work.

If the work is more than 100 feet away from the bridge structure, permittees may send a certification by e-mail stating so. Either response must be sent to the Division of Bridges at bridgeshold@dot.nyc.gov for review and release prior to commencing work. Emergency work will not be placed on hold and shall proceed in accordance with the New York City Highway Rules, section 2-11 (g);

(c) Permits from the Department of Sanitation for use of City landfills;"

[Added 07-27-2011]

5. Refer to Page 37, **Subsection 1.06.46.(A) 6. Sign Graphics;**
Delete article "a." beginning with the words "All visual components of the sign are in an Adobe *.pdf file, . . ." and ending with the words ". . . DDC to the Contractor (on a CD or via E-mail) for printing.", in its entirety;
Substitute the following revised article "a":

"a. All visual components of the sign are in an Adobe *.pdf file, which is provided by the Commissioner's representative. The file is not to be altered for composition, type font or image from the version provided by DDC. The Commissioner's representative shall provide a complete file with data and image. The digital file shall be provided by DDC to the Contractor (on a CD or via E-mail) for printing."

[Added 09-27-2012]

6. Refer to Page 36, **Subsection 1.06.46. Project Sign;**
Delete the words "Unless otherwise specified in the Special Provisions of the contract, the following shall apply:";
Substitute the following revised text:

"The Contractor is notified that he shall be required to furnish, install, maintain, and remove, when directed, Construction Project Information Signs (CPIS) as per Sec. 2-02(c)(4) and (5) of the NYC DOT Highway Rule and the cost shall be deemed included under all scheduled items of the contract. In addition, unless otherwise specified in the Special Provisions of the contract, the following Project Sign shall also apply:"

[Added 04-08-2013]

7. Refer to Page 200, **Subsection 4.11.2.(B), first paragraph, sixth line;**
Delete the word "porcelain,".
8. Refer to Page 201, **Subsection 4.11.3.(B) FILL AND BACKFILL, second and third paragraphs;**
Delete the second and third paragraphs under Subsection 4.11.3.(B), in their entirety;
Substitute the following revised two paragraphs:

"Glass or Recycled Porcelain Aggregate (RPA) from recycling facilities that meets the requirements of **Subsection 4.11.3.(E)** for Glass and **Subsection 4.11.3.(F)** for RPA shall be considered suitable material for mixing with fill provided the Contractor maintains the gradations specified herein. However, glass shall not be placed in contact with synthetic liners, geogrids, geotextiles or other geosynthetics.

Glass and/or RPA incorporated into fill shall be thoroughly mixed with other suitable material so that glass, RPA or combination of both constitutes no more than 30 percent by volume anywhere in the fill as visually determined by the Engineer."

9. Refer to Page 202, **Subsection 4.11.3.(E) GLASS;**
Add the following new **Subsection 4.11.3.(F) RECYCLED PORCELAIN
AGGREGATE (RPA) :**

“(F) RECYCLED PORCELAIN AGGREGATE (RPA)

All porcelain to be used as RPA shall be crushed by a New York City Department of Environmental Protection (NYCDEP) approved recycling facility to a maximum particle size of 3/8 inch and graded to meet the gradation specified above for use in either fill, backfill or select fill, as may be required. RPA from any other source will not be permitted. The NYCDEP approved recycling facility will also certify that the RPA being furnished is free from organic material and other unsuitable material.

Should the Contractor desire to use RPA in his fill or backfill material, he shall contact Mr. Vasyl Kravchuk at NYCDEP (Tel. No. 718-595-7512) to determine the availability of RPA and from which recycling facility it can be obtained.

The Contractor shall be required to make arrangement with the recycling plant, at least two (2) weeks in advance of when he would need the material, to schedule the time, date and quantity available for pickup. The Contractor shall be required to furnish the recycling facility with a complete list of his trucks involved in transporting the material, which shall include the name of the registered owner (Contractor), Consumer Affairs or DOS Permit numbers, body license plate number, and truck volume. This information must be supplied to the facility prior to the start of picking up the RPA.

Weight ticket receipt slips given by the recycling facility to each truck driver picking up RPA shall be collected by the Contractor and given to the Engineer upon delivering fill or backfill material to the site that contains RPA, and the Contractor agrees and warrants that in obtaining the RPA that such material has originated only from a NYCDEP approved recycling plant and it has not been mixed with porcelain material from any other source.

The Contractor shall be required to transport said material from the approved recycling facility to his yard for storage and mixing with his fill material; however, there is not guarantee that the material will actually be available.

The Contractor is advised that there is no guarantee that RPA will in fact be available for his use from a NYCDEP approved recycling plant and he shall make no claim against the City for loss of anticipated profits should the material not be available upon request by the Contractor.

All excess RPA not used in the fill or backfill shall remain the property of the DDC Contractor.

The Contractor must comply with all rules and regulations of the Department of Transportation and the Department of Environmental Protections governing the use of RPA in its fill and backfill material.”

10. Refer to Pages 218 and 219, **Subsection 4.13.4.(H) PIGMENTING,**
first four paragraphs;

Delete the first four paragraphs under Subsection 4.13.4.(H), in
their entirety;

Substitute the following revised four paragraphs:

“Where pigmenting is specified, the concrete sidewalks shall be pigmented with an admixture complying with the requirements of **Section 2.19** and the following requirements:

‘Commercial Gray’: In commercial districts C4-4 through C4-7, C5 and C6, as defined in the Zoning Resolution of the City of New York, and in areas under the jurisdiction of the Lower Manhattan Development Corporation the color of the concrete shall be integrally pigmented to produce a gray color equivalent to L.M. Scofield ‘Landmarks Grey’ K-157-4; L.M. Scofield ‘Cool Black No. 4’; Davis Colors No. 884-3%; Lansco Color No. 437 ‘Strong Black’ 5 lbs. per 94 lbs. Light Grey Portland Cement and 3 parts sand; Bayferrox NYC Landmark Commission Gray, 3.5 lbs. per 94 lbs. Light Gray Portland Cement; or an approved equivalent, unless otherwise specified.

'Bluestone': Where the color of the concrete is required to simulate the color of dark gray bluestone, the concrete shall be integrally pigmented to produce a gray color equivalent to: Davis Colors No. 884-3%; Lansco Color No. 437 'Strong Black' 5 lbs. per 94 lbs. Light Grey Portland Cement and 3 parts sand; L.M. Scofield 'Cool Black No. 4'; Bayferrox Limestone 330, 2 lbs. per 94 lbs. Light Gray Portland Cement; or an approved equivalent, unless otherwise specified.

'Granite': Where the color of the concrete is required to simulate the color of light to medium gray granite, the concrete shall be integrally pigmented to produce a gray color equal to: Davis Colors No. 884-1%; Lansco Color No. 437 'Strong Black' 2.5 lbs. per 94 lbs. Light Grey Portland Cement and 3 parts sand; L.M. Scofield 'Cool Black No. 1'; Bayferrox Silver 330, 1 lb. per 94 lbs. Light Gray Portland Cement; or an approved equivalent, unless otherwise specified."

[Added 05-24-2013]

11. Refer to Page 14, **Subsection 1.06.23.(A) PERMITS**, first paragraph as modified by Article 4 on page A1-1b;
Add the following new text:

"(d) All necessary permits from the Department of Environmental Protection which may include, but are not limited to, permits for use of City water."

12. Refer to Page 14, **Subsection 1.06.23.(A) PERMITS**, second paragraph;
Add the following as the third paragraph:

"No fee permits for use of City water necessary to complete roadway pavement reconstruction project in conjunction with installation of sewers and/or water mains, will be issued by the Department of Environmental Protection. However, for all other type projects (such as installation of sidewalks, installation of pedestrian ramps, pavement milling, resurfacing, rehabilitation of retaining walls, and bridge reconstruction type projects) the Contractor will be required to obtain the water use permit at its own cost."

[Added 08-05-2013]

13. Refer to page 116, second paragraph up from the bottom of the page, first line;
Change the words "Concrete of Type IA and IIA shall have..." to read "Concrete of Type IA, IIA and IIIA shall have..."

[Added 09-04-2013]

14. Refer to page 100, **Subsection 3.01.3.(C)1.(c)**;
Delete the last two lines of text beginning with the words "The proportion of reclaimed asphalt pavement permitted within each mix...";
Substitute the following sentence: "The proportion of reclaimed asphalt pavement permitted within each mix shall be not less than 30 percent for the top and bottom courses as per Local Law #71 of 2011."

15. Refer to page 110, **Subsection 3.05.2.(A)**, **Table 3.05-I**;
Insert the following text at the bottom of **Table 3.05-I**:

"Note: The above proportions shown for non-High-Early mixes shall be modified by pozzolan substitutes as per **Subsection 3.05.4**."

16. Refer to page 112, **Subsection 3.05.3.(C)**, second paragraph;
Delete the second paragraph in its entirety;
Substitute the following paragraph:
- “Water shall be potable and drawn from municipal water mains.”
17. Refer to page 113, first line of text, beginning with the words
“condition making up one (1) cubic yard of concrete.”;
Insert the following sentence between the words “condition making up one
(1) cubic yard of concrete.” and “The range of water-cement ratio within which the . . .”:
- “The calculated yield of the mix shall be within $\pm 2\%$ of the Theoretical one (1) cubic yard.”
18. Refer to Page 113, second paragraph beginning with the words “The
Contractor may substitute Portland cement . . .”;
Delete the second paragraph under **Subsection 3.05.4.**, in its
entirety;
Substitute the following revised paragraph:
- “With the exception of high-early strength concrete, the Contractor shall be required to substitute Portland cement with pozzolans (Fly Ash or GGBFS) such that the maximum amount of Portland cement per cubic yard of concrete does not exceed 400 pounds, and with the use of an approved non-corrosive, non-chloride admixture as required to obtain a minimum compressive strength of 3,000 psi in seven (7) days. For high-early strength concrete the Contractor may substitute Portland cement with pozzolans (Fly Ash or GGBFS), pound for pound, up to 20% (or up to 25% for tidal/sea water spray areas) of the weight of cement specified for any concrete mixture provided the Contractor can obtain a minimum compressive strength of 3,000 p.s.i. in three (3) days. The Contractor, immediately following but not later than eight weeks after the date of the Contractor's Notice to Proceed, shall file with the Engineer, Age-Strength data of the job mix he proposes to use for the various ambient temperatures anticipated during the period of concrete placement. This data shall be presented in both tabular and graphical form for those various ambient temperatures with a maximum setting period of seven (7) days for Class B-32 concrete or seventy-two (72) hours for High-Early Strength Concrete.”
19. Refer to Page 115, **TABLE 3.05-III - INGREDIENT MATERIALS**;
Change in the third row, second column, the type of Portland
Cement from “Type III*” to read “Type II or Type III*”
20. Refer to page 132, **Subsection 3.06.3.(D)**;
Change the words “Water shall be drawn from mains owned by The City of New York.” to
read “Water shall be potable and drawn from municipal water mains.”
21. Refer to page 133, **Subsection 3.07.3.(D)**;
Change the words “Water shall be drawn from mains owned by or supplying water to The
City of New York.” to read “Water shall be potable and drawn from municipal water
mains.”
22. Refer to page 134, **Subsection 3.08.4.(D)**;
Change the words “Water shall be drawn from mains owned by or supplying water to The
City of New York.” to read “Water shall be potable and drawn from municipal water
mains.”

23. Refer to Page 166, **Subsection 4.05.2.(A)** ;
Delete **Subsection 4.05.2.(A)**, in their entirety;
Substitute the following revised **Subsection 4.05.2.(A)** :

“(A) Concrete Pavement shall be of the following types:

- Type 1--Non-reinforced
- Type 2--Reinforced (Unpigmented or pigmented if specified)
- Type 3--High Early Strength Reinforced (Unpigmented or pigmented if specified)

Type 2 and Type 3 pavements shall consist of a concrete surface course, which shall be unpigmented or pigmented if specified, laid on a concrete base course, which may or may not be pigmented at the Contractor's option, while the base course is still plastic, of the thickness shown on the Contract Drawings, with reinforcement placed between the surface and base courses.”

24. Refer to Page 166, **Subsection 4.05.3.(A)** ;
Insert the following new **Subsection 4.05.3.(A1)** :

“(A1) PIGMENTING

Where pigmenting is specified, the surface course of the concrete bus pad shall be pigmented with an admixture complying with Section 2.19 and the following requirements:

Where the color of the concrete is required to simulate the red color of the Red Bus Lane Pavement Overlay (Item 6.44 POR in Section 6.44 PO), the surface course concrete shall be integrally pigmented to produce a red color equivalent to Scofield's quarry red.

Except for the use of an air-entraining agent complying with ASTM Designation C 260 and water reducing admixtures complying with ASTM Designation C 494 used in combination with the Pigment Admixture as per the pigment manufacturer's instruction, no other admixtures (including, but not limited to, calcium chloride) shall be used unless stated in writing by the manufacturer of the Pigment Admixture to be of no consequence to the colorfastness of the concrete mixture and is approved by the Engineer.

All pigmented concrete at different locations shall be identical, unless otherwise directed. Variations in color/tint/hue will not be acceptable. Therefore, the same brand and type of cement and the same source and type of aggregate shall be used throughout the project.

Prior to the mix design being made, the cement intended for use shall be checked to determine that its lightness/darkness is similar to the cement used in the original approved sample. The Pigmented Admixture shall be added in the standard proportion specified by the manufacturer.”

25. Refer to Page 170, **Subsection 4.05.5.(A) GENERAL** ;
Insert the following two new paragraphs:

“For pigmented concrete, the Contractor shall within eight weeks of the notice to proceed, submit the name of its proposed roadway installer upon which his bid is based, along with their respective work history experience in placing pigmented concrete. The installer shall have documented experience in working with pigmented concrete.

Prior to making any field samples and the placing of any pigmented concrete, the Contractor, its concrete supplier, installer, cement producer, laboratory, the pigmented admixture's representative, and the Engineer shall meet and agree on the specifications and methods of handling the pigmented concrete.”

26. Refer to Page 183, **Subsection 4.05.9. PRICES TO COVER**, 4th line;
Insert in the fourth line, the words “pigment when specified” between the words “specifications, including, but not limited to,” and “furnishing and installing...” :

27. Refer to Page 183, **Subsection 4.05.9. PRICES TO COVER;**
Insert the following two new Items to the list of Item Nos. at the
bottom of **Subsection 4.05.9:**

"4.05 ACP REINFORCED CONCETE PAVEMENT (BUS STOPS)(PIGMENTED) C.Y.
4.05 AXP HIGH-EARLY STRENGTH REINFORCED CONCRETE PAVEMENT
(BUS STOPS)(PIGMENTED) C.Y."

[Added 04-15-2015]

28. Refer to Page 12, the second page of CONTRACTOR CODE OF CONDUCT;
Delete the text on page 12, in its entirety;
Substitute the revised text as contained on the following page
A1-1i.

29. Refer to Page 15, Subsection 1.06.23.(B) DISPOSAL OF CONSTRUCTION
WASTE;
Delete Subsection 1.06.23.(B) DISPOSAL OF CONSTRUCTION WASTE, in
its entirety;
Substitute the following text:

"(B) DISPOSAL OF CONSTRUCTION WASTE

The Contractor shall dispose of all waste materials in a legal and proper manner. Should the facilities of the New York City Department of Sanitation be used, waste material shall be disposed of in accordance with the rules and regulations of the Department of Sanitation. The Contractor shall submit an affidavit to the Commissioner indicating that he has complied with said rules and regulations, the site used, and proof of purchase of dump tickets. Should the Contractor use a site other than the Department of Sanitation, the Contractor shall submit an affidavit to the Commissioner indicating that he has complied with all laws for removal of waste material, the site used, and a paid receipt. In addition, should the facilities used be located in the State of New York, it shall be a Solid Waste Management Facility registered with the New York State Department of Environmental Conservation, Division of Solid & Hazardous Materials. Failure to comply with this provision shall be deemed a material breach of this contract."

30. Refer to Pages 20 and 21, Subsection 1.06.25. Schedule of
Operations;
Delete the last paragraph of Subsection 1.06.25., in its entirety;
Substitute the following paragraph:

"The Contractor shall submit weekly progress status update reports showing its anticipated work schedule for the upcoming week or as otherwise directed by the Engineer. Timely submission of these weekly progress schedules are critical for preparation of the Weekly Construction Bulletin to be prepared by the Construction Community Liaison or project staff. If the Contractor fails to submit the required anticipated work schedule, the Resident Engineer will issue a Field Order. The Contractor shall submit updated bar chart every month. The revised bar chart shall be made in the same form and detail as the original submittal and shall be accompanied by an explanation of the reasons for the revisions all of which shall be subject to approval by the Engineer."

31. Refer to Page 89, Subsection 2.26.5.;
Change the "Percent Passing" for Siece Size No. 100 from "40-600%"
to "40-60%".

Relationships with the community will be polite and helpful

- Inappropriate or foul language will not be tolerated.
- Personal and commercial deliveries will be accommodated.
- Access will always be maintained for mail delivery and the community.
- Construction personnel will be courteous to the public and will refer all questions to the Resident Engineer or Community Construction Liaison.

The community will be kept informed about the project

- An overall project schedule along with detailed information about immediate project activities will be maintained and kept up-to-date, for use by City representatives to keep the community informed of Contractor's operations.
- All 24 Hour Notifications signs prepared by the project staff in order to inform the public of impending work (i.e. water shutdowns, parking interruptions, traffic pattern changes, access restrictions, etc.) shall be posted by the Contractor in the affected geographical area as directed by the Engineer, at least 24 hours before the start of such work.

Construction will proceed in a safe manner

- Temporary walkways will be clearly marked, smooth, drained, and clear of obstacles.
- Access to active fire hydrants will be maintained.
- Equipment and vehicles will be operated at acceptable speeds and in a safe manner.
- Fencing will be maintained in an acceptable condition.
- There will be sufficient traffic control devices and they will be maintained.
- Trucks will not stand idling.
- Steel road plates will be skid-resistant.
- Flaggers will ALWAYS be used when equipment is moved into and out of congested or high-volume traffic areas.
- Temporary asphalt ramps and roadway restorations will be well maintained.

Signature of Principal of Construction Company

Date

Name of Construction Company (Print)

2. AMENDMENTS TO STANDARD HIGHWAY SPECIFICATIONS, VOLUME II

[Added 01-25-2012]

1. Refer to Pages 365 and 366, **Subsection 6.40.2.(C)(c)(1) Personal Computer(s) - Workstation Configuration;**

Delete the text under **Subsections (a), (b), (c), (d), (h), (i), and (m),** in their entirety;

Substitute the following revised text:

- “(a) Make and Model: Dell; HP; Gateway; Acer; or, an approved equivalent. (Note: an approved equivalent requires written approval of the Assistant Commissioner of ITS.)
- (b) Processor: i5-2400 (6MB Cache, 3.1GHz) or faster computer - Single Processor.
- (c) System Ram: Minimum of 4GB (Gigabytes) Dual Channel DDR3 SDRAM at 1333MHz – 2 DIMMSs
- (d) Hard Disk Drive(s): 500 GB (Gigabytes) Serial ATA (7200RPM) w/DataBurst Cache, or larger.”
- “(h) Video Display Card: HD Graphics (VGA, HDMI) with a minimum of 64 MB of RAM.
- (i) Monitor: 22" W, 23.0 Inch VIS, Widescreen, VGA/DVI LCD Monitor.”
- “(m) Software Requirements: Microsoft Windows 7 Professional SP1, 64 bit; Microsoft Office Professional 2010; Microsoft Project 2010; Adobe Acrobat reader; Anti-Virus software package with 2 year updates subscription; and, either Auto Cad 2012 LT or Microsoft Visio 2010 Standard Edition, as directed by the Engineer.”

~~2. Refer to Page 366, **Subsection 6.40.2.(C)(c)(2)(b) ;**~~

~~Delete the text under **Subsection (b),** which begins with the words~~

~~“(b) One (1) 600 DPI HP Laser Jet . . .”, in its entirety;~~

~~Substitute the following revised text:~~

- ~~“(b) One (1) 600 DPI HP Color Laser Jet all-in-one Printer/Scanner/Copier/Fax (twelve (12) pages per minute or faster) with one (1) Extra Paper Tray (Legal Size) networked to all office computers.”~~

3. Refer to Page 367, **Subsection 6.40.3. SPECIFIC REQUIREMENTS FOR ENGINEERS FIELD OFFICE (TYPE A, B, C, CU, D OR DU)**, first paragraph;
 Delete the text in the first paragraph of **Subsection 6.40.3.**, in its entirety;
 Substitute the following revised text:

6.40.3. SPECIFIC REQUIREMENTS FOR ENGINEER'S FIELD OFFICE (TYPE A, B, C, CU, D, OR DU). In addition to the general requirements, each type of Field Office shall have the minimum floor area indicated in Table 6.40-I calculated based on usable area only, excluding any loss factors. Loss factors are defined as those areas such as lobby, sidewalk window ledge, elevator shafts and stairways. The Contractor shall provide and maintain furnishings for each type of Field Office in the quantity specified in Table 6.40-I. The furnishings shall be new or used equipment satisfactory to the Engineer:

4. Refer to Page 368, **TABLE 6.40-I, ADDITIONAL REQUIREMENTS SPECIFIC REQUIREMENTS**;
 Delete the requirements for a Photocopy Machine shown in the 15th row of **TABLE 6.40-I**, in its entirety;
 Substitute the following revised requirements:

| | | | | | | |
|---|---|---|---|---|---|---|
| Photocopying Machine – Stand-alone, heavy duty, electric, dry-process color photocopying type with a minimum production rate of 70 pages per minute and an adequate supply of copy paper, toner, etc. The machine shall be capable of duplex copying paper sizes of 8-1/2 x 11 inches, 8-1/2 x 14 inches and 11 x 17 inches, and have separate trays for each paper size. It shall have a document feeder, collator, stapler, and the capability to reduce/enlarge copies between each paper size. The supply of each size copy paper, toner, etc. shall be replenished and the machines shall be maintained for the duration of the contract by the Contractor as required by the Engineer. Make and model can be Minolta, Canon, IBM, Epson, or an approved equivalent, and shall be networked to the office computers. | 1 | 1 | 1 | 1 | 1 | 1 |
|---|---|---|---|---|---|---|

5. Refer to Page 368, **TABLE 6.40-I, ADDITIONAL REQUIREMENTS SPECIFIC REQUIREMENTS**;
 Insert the following two additional requirements:

| | | | | | | |
|--|---|---|---|---|---|---|
| Heavy duty commercial grade diamond cut shredder with automatic start. The shredder shall be able to receive 8-1/2 inch wide paper and shred a minimum of 15 sheets simultaneously along with CDs and staples. | 1 | 1 | 1 | 1 | 1 | 1 |
| Projector – 1080p LCD with a min. of 2200 ANSI Lumens, 1920 x 1080, 16:9, 40,000:1 contrast ratio, HDMI, VGA, USB, and a 10 feet diagonal, 16:9 Projection Screen. | - | - | 1 | 1 | 1 | 1 |

6. Refer to Page 496, Subsection **7.20.4. METHODS**, last paragraph beginning with the words "When directed by the Engineer, due to the original conditions . . .";
Add the following sentence to the end of the last paragraph under **Subsection 7.20.4**:

"However, if the owner at his own expense supplies the replacement frame and doors or hatch covers the Contractor shall install the replacement frame and doors or hatch covers under this Item 7.20, as a basement access reset, in lieu of the steel safety closure plate."

[Added 07-16-2012]

7. Refer to Page 365, Subsection **6.40.2. (C) (c) (1) "Personal Computer(s) - Workstation Configuration"**;
Delete the text under Subsections **(g) and (k)**, in their entirety;
Substitute the following revised text:

- "(g) I/O Ports: Must have at least one (1) Serial Port, one (1) Parallel Port, and three (3) USB Ports.
- (k) Network Interface: Integrated 10/100/1000 Ethernet card."

8. Refer to Page 366, Subsection **6.40.2. (C) (c) (2) "All field offices requiring computers shall be provided with the following:"**;
Delete the text under Subsection **(a)**, in its entirety;
Substitute the following revised text:

- "(a) One (1) broad-band internet service account. Wideband Internet connectivity at a minimum throughput of 15 Mbps download and 5 Mbps upload is required at each field office location with 1-5 staffers. For larger field offices see table below for minimum required upload speeds. Telephone service should be bundled together with Internet connectivity. Because of throughput requirements Verizon FIOS is the preferred connectivity provider where available.

| Office Personnel # | Upload Speeds (Minimum) |
|--------------------|-------------------------|
| 1 - 5 | 5 Mbps |
| 6 - 10 | 10 Mbps |
| 11 - 15 | 15 Mbps |
| 16 - 20 ... | 20 Mbps |

This account will be active for the life of the project. The e-mail name for the account shall be the DDC Field Office/project Id (e.g. FLD K HWK666 McGuinness@earthlink.com)."

[Added 08-09-2012]

9. Refer to Page 366, **Subsection 6.40.2.(C)(c)(2)(b)**, as amended by Article 2 on page A1-2 of this Addendum;
Delete the text under **Subsection (b)**, in its entirety;
Substitute the following words: "**(b) (No Text).**"

10. Refer to Page 368, TABLE 6.40-I, ADDITIONAL REQUIREMENTS SPECIFIC REQUIREMENTS;
Delete the requirements for a Photocopy Machine shown in the 15th row of TABLE 6.40-I, as modified by Article 4 on page A1-2a of this Addendum, in its entirety;
Substitute the following revised requirements:

| | | | | | | |
|--|---|---|---|---|---|---|
| Photocopying Machine – Stand-alone, heavy duty, electric, dry-process color photocopying type with color scan and send capability via e-mail, a minimum production rate of 70 pages per minute and an adequate supply of copy paper, toner, etc. The machine shall be capable of duplex copying paper sizes of 8-1/2 x 11 inches, 8-1/2 x 14 inches and 11 x 17 inches, and have separate trays for each paper size. It shall have a document feeder, collator, stapler, and the capability to reduce/enlarge copies between each paper size. The supply of each size copy paper, toner, etc. shall be replenished and the machines shall be maintained for the duration of the contract by the Contractor as required by the Engineer. Make and model can be Minolta, Canon, IBM, Epson, or an approved equivalent, and shall be networked to the office computers. | 1 | 1 | 1 | 1 | 1 | 1 |
|--|---|---|---|---|---|---|

[Added 11-26-2012]

11. Refer to Pages 504 through 508, **SECTION 7.88 – Rodent and Waterbug Pest Control**;
Delete **Section 7.88**, in its entirety;
Substitute SECTION 7.88 (Revised), as contained on the following pages A1-2d through A1-2i.

[Added 02-08-2013]

12. (NO TEXT)

SECTION 7.88 (Revised)
Rodent and Waterbug Pest Control

7.88.1. DESCRIPTION. The Contractor shall provide all labor, materials, plant and equipment, and incidentals required to survey and monitor rodent activity and control any infestation or outbreak of rodents and waterbugs (American cockroaches) within the project limit.

7.88.2. MATERIALS. All materials shall be approved by the New York State Department of Environmental Conservation and comply with the New York City Health Code for the intended usage.

Rodenticide weatherproof bait blocks shall be multiple dose anticoagulants such as Chlorophacinone or Dephacinone, or single feed rodenticides such as ContraMeal, ContracBait block, Quintox pellets or TalonG pellets, or an approved equivalent.

Tamper proof bait station boxes shall be designed to exclude other mammals and shall be used with poisoned bait to attract rats. Information on "tamper proof bait station boxes" is available from the NYC Bureau of Regulatory & Environmental Health Services, Pest Control Office (718-956-7103/4).

Live traps shall be of proper dimensions for trapping rats and shall not be used with poisoned bait.

Insecticide bait shall be a residual type such as phenol methyl carbamate (2%) bait or an approved equivalent.

(A) SUBMITTALS

Prior to commencement of construction activities the Contractor shall submit to the Engineer manufacturer's installation instructions for all materials required for rodent and waterbug pest control work and product data which shall include illustrations, catalog data, product characteristics, typical use, performance, and limitation criteria of all rodent and waterbug pest control materials required.

7.88.3. PERSONNEL. The Contractor shall employ two independent licensed exterminators: one to engage in survey and monitoring work to establish the level of infestation of rodents and insects and provide recommendations for specific Integrated Pest Management (IPM) actions, and one to execute the rodent and waterbug pest control work to deal with such infestations. All pest control personnel employed by each exterminator company must be supervised by an exterminator licensed in categories 7A & 8. The Contractor shall submit the names and license credentials of the two exterminator companies to the Engineer for approval prior to the commencement of any work under this section.

7.88.4. METHODS. Application and dosage of all materials shall be done in strict compliance with the manufacturer's recommendations. All surveying, monitoring, baiting, and/or live trapping work shall be performed in the presence of the Engineer, without which no payment will be made under this Section.

(A) GENERAL

The Contractor's construction activity is expected to disturb any established rodent and/or waterbug population that may exist within the project limits, possibly causing their dispersion. The Contractor shall take all appropriate action to eliminate and/or control these populations within the construction corridor: the construction corridor shall be defined as being the full width of streets under the contract and intersecting streets up to the limits of construction, from property line to property line, excluding buildings and under sidewalk building vaults.

Under the Maintenance of Site requirements for the contract, any unsanitary conditions, such as uncollected garbage or debris, resulting from the Contractor's activities which will provide food and shelter to the resident rodent population shall be corrected by the Contractor immediately after notification of such condition by the Engineer. Non-compliance shall be subject to the application of the "Nonconformance" provisions of the Item for Maintenance of Site, and no payment will be made for any additional application of rodenticide or insecticide needed to control resultant infestations.

(B) SURVEY AND MONITORING WORK

(1) Prior to Construction - The Contractor's designated survey and monitoring exterminator shall execute a survey of the project area and estimate the level of rodent (Norway rat, House mouse) infestation and the waterbug population within the construction corridor. An appropriate sample of utility manholes (sewer, electrical, telephone, etc.) and catch basins should be opened and surveyed to the satisfaction of the Engineer. Contractor shall maintain all survey records in the manner described in 7.88.6., Records and Reports.

(2) During Construction - The Contractor shall monitor the rodent activity through trapping (snap, glue traps or live traps), fecal count methods, and inspection of the conditions of all installed baits every week during construction activity or as otherwise directed by the Engineer. Contractor shall maintain all monitoring records in the manner described in 7.88.6., Records and Reports.

(C) RODENT CONTROL WORK

(1) Wetlands, Woodlands and Areas Within Seventy-five (75') feet of a Stream. In wetlands, woodlands and areas adjacent to a stream, special precautions must be taken to protect water quality and to ensure the safety of other wildlife. To prevent poisoned bait from entering streams, no poisoned bait shall be used in areas within seventy-five (75') feet of either streambank. Live traps must be used in these seventy-five (75') feet buffer zone areas and within wetland and woodland areas.

(2) Outside Wetland Areas, Woodland Areas and Beyond Seventy-five (75') feet of a Stream. In areas outside the seventy-five foot zone of protection adjacent to streams, and areas outside wetlands and woodlands, tamper proof bait stations with poisoned bait shall be established during the period of construction and any consumed or decomposed bait shall be replenished as directed.

Rodent control shall be achieved in two stages as follows:

- Stage I. At least one month prior to initiation of the construction work, and periodically thereafter, live traps and/or rodenticide bait, as directed above, shall be placed at locations [e.g., burrows, utility manholes (sewer, electrical, phone, etc.), and catch basins] that are inaccessible to pets, human beings, children and other non-target species, particularly wildlife (e.g., birds) in the construction corridor. Locations of initial bait placement and quantities of bait shall be determined by the survey and monitoring exterminator's written report of his survey and monitoring results, or as otherwise directed by the Engineer.
- Stage II. During Construction - Infested sites as determined by the survey and monitoring exterminator's monitoring report shall be baited and/or rebaited, and live traps shall be collected and replaced, the rates and quantities of which shall be determined by the written monitoring reports submitted weekly or as otherwise directed by the Engineer in consultation with the City's Office of Pest Control.

The baiting exterminator shall be responsible for collecting and disposing of all trapped and poisoned rodents found in live traps and tamper proof bait stations. The baiting exterminator shall also be responsible for posting and maintaining signs announcing the baiting of each particular location.

The Contractor, under his maintenance of site operations, shall be responsible for the immediate collection and disposal of any visible rodent remains found on streets or sidewalk within the project limits. Any visible remains shall be placed into double plastic bags. No more than five (5) carcasses shall be placed into each bag. Each bag shall be a minimum of 3 mils thick, black plastic. No additional payment will be made for this work.

It is anticipated that public complaints will be addressed to the Engineer's Field Office. The Contractor, where directed by the Engineer, shall take appropriate Integrated Pest Management (IPM) actions, such as baiting, trapping, proofing, etc., to remedy the source of a complaint within the next six (6) hours of normal working time, which is defined herein, for the purposes of this section, as 7 A.M. to 6 P.M. on Mondays through Saturdays.

(D) WATERBUG (AMERICAN COCKROACH) CONTROL

Infested sites (e.g., sewers) shall be baited at least 2 times per month with insecticides, or as directed by the Engineer in consultation with the exterminator monitoring the work and the City's Office of Pest Control.

7.88.5. EDUCATION & TRAINING. The Contractor shall post notices in all Construction Bulletin Boards advising workers, employees, and residents to call the Engineer's Field Office to report rodent and waterbug infestations. The Contractor shall provide and distribute literature pertaining to IPM techniques of rodent control to affected businesses and superintendents of nearby residential buildings to ensure their participation in maintaining their establishments free of unsanitary conditions, harborage removal and rodent proofing.

Prior to application of any chemicals, the Contractor shall furnish copies or sample labels for each pesticide, antidote information, and Material Data Safety Sheets (MSDS) for each chemical used.

7.88.6. RECORDS AND REPORTS.

(A) GENERAL

The Contractor shall be responsible for assigning within the construction corridor an identifying number to each manhole, catch basin, and other location where bait and/or live trap placement and/or waterbug control work is proposed by the survey and monitoring exterminator. The Contractor shall then provide that list of locations and corresponding reference numbers along with a drawing showing the locations, as a reference for the exterminator(s) performing the work, to indicate locations of bait placement and waterbug control work and rodent and waterbug activity (droppings, bait consumed, dead rodents, etc.).

(B) SURVEY AND MONITORING WORK

(1) Prior to Construction – Contractor shall submit to the Engineer, for approval, a written survey report including proposed IPM procedures, including specific materials, quantities, locations, methods, and time schedule for the implementation of the exterminating work. The written report shall also include a survey with a drawing (provided by the Contractor) marked with locations indicating all signs of rodent (Norway rat, House mouse) infestation and waterbug activity discovered during the execution of the survey indicating that rodent and waterbug pest control work is necessary.

(2) During Construction - Based on monitoring results, Contractor shall submit to the Engineer a weekly written monitoring report identifying all locations and conditions of installed bait and/or other rodent control work. The monitoring report shall also include any other recommended IPM techniques, such as baiting, trapping, proofing, etc., proposed for rodent and waterbug pest control.

The survey and monitoring exterminator shall keep a record of all rodent and waterbug infestation surveys s/he has conducted. The Contractor shall be required to submit a copy of all survey and monitoring reports to the Engineer each week, prior to payment.

(C) RODENT AND WATERBUG CONTROL WORK

The baiting exterminator shall maintain records of all locations baited along with the type and quantity of rodenticide and insecticide bait used. These records will be kept by the City Inspector. A weekly report shall be prepared, signed and certified by the approved licensed exterminator, and such reports shall be submitted to the Engineer each week, prior to payment.

7.88.7. NONCONFORMANCE. If the Contractor fails to perform as directed to control the rodent and/or waterbug population at any location within the project limits for a period of more than one week, the Engineer will correct the adverse conditions by any means he deems appropriate, including but not limited to, the use of “outside services” and shall deduct the cost of the corrective work from any monies due to the Contractor. The deducted cost of this work shall be in addition to the non-payment for rodent and waterbug pest control.

7.88.8. MEASUREMENT.

(A) RODENT INFESTATION SURVEY AND MONITORING

The quantity to be measured for payment under Item No. 7.88 AA, RODENT INFESTATION SURVEY AND MONITORING, shall be a Lump Sum measurement.

(B) RODENT BAIT STATIONS

The quantity to be measured for payment under Item No. 7.88 AB, RODENT BAIT STATIONS, shall be the number of tamper-proof rodent bait station boxes and/or live traps satisfactorily installed or reinstalled after inspection within the construction corridor, as approved by the Engineer. However, the initial baiting, and subsequent rebaiting as may be required, of any bait station will be paid for under Item 7.88 AC.

(C) BAITING OF RODENT BAIT STATIONS

The quantity to be measured for payment under Item No. 7.88 AC, BAITING OF RODENT BAIT STATIONS, shall be the number of tamper-proof rodent bait station boxes, utility manholes, catch basins, or other locations approved by the Engineer, satisfactorily baited or rebaited to replenish consumed or decomposed bait within the construction corridor, as approved by the Engineer.

(D) WATERBUG BAIT APPLICATION

The quantity to be measured for payment under Item No. 7.88 AD, WATERBUG BAIT APPLICATIONS, shall be the number of blocks satisfactorily treated with insecticide bait within the construction corridor, as approved by the Engineer. A block shall be defined as the area of street, measured between property lines, from intersection to intersection. Each rebaiting of any block shall be considered as a new block for measurement purposes.

7.88.9. PRICES TO COVER.

(A) RODENT INFESTATION SURVEY AND MONITORING

Payment will be made at the lump sum price bid for RODENT INFESTATION SURVEY AND MONITORING which shall include the cost of furnishing all the labor, materials, plant, equipment (traps, etc.), insurance, and other incidentals required, including but not limited to providing all required maintenance of traffic equipment, to perform a rodent infestation survey of the project area and then monitor the site each week for rodent activity, all in accordance with the specifications and the directions of the Engineer.

Ten (10%) percent of the lump sum price bid will be paid when the initial survey of the project area has been completed and the written survey report has been submitted to the satisfaction of the Engineer. The remainder will be paid in proportion to the percentage of contract completion.

(B) RODENT BAIT STATIONS

The Contract price bid for RODENT BAIT STATIONS shall be a unit price per each tamper proof bait station box and/ or live trap installed or reinstalled after inspection and shall cover the cost of furnishing all labor, materials, plant, equipment (bait stations, etc.), insurance, and other incidentals, including but not limited to providing all required maintenance of traffic equipment, required to control the rodent population found within the project limits in accordance with the specifications and the directions of the Engineer.

In addition to the payment for Rodent Bait Stations installed or reinstalled under this Item 7.88 AB, the Contractor will also be paid for each baiting or rebaiting, when required, of each bait station, under Item No. 7.88 AC.

(C) BAITING OF RODENT BAIT STATIONS

The Contract price bid for BAITING OF RODENT BAIT STATIONS shall be a unit price per each bait station, utility manhole, catch basin or other location approved by the Engineer satisfactorily baited or rebaited, when required, and shall cover the cost of furnishing all labor, materials, plant, equipment (bait), insurance, and other incidentals, in accordance with the specifications and directions of the Engineer. Installation or resetting of the bait station will be paid for under Item 7.88 AB.

(D) WATERBUG BAIT APPLICATION

The Contract price bid for WATERBUG BAIT APPLICATION shall be a unit price per block treated by the exterminator and shall include the cost of furnishing all the labor, materials, plant, equipment (bait, etc.), insurance, and other incidentals, including but not limited to providing all required maintenance of traffic equipment, necessary to control the waterbug population found within the project limits for the duration of the contract in accordance with the specifications and the directions of the Engineer.

Payment will be made under:

| Item No. | Item | Pay Unit |
|----------|--|----------|
| 7.88 AA | RODENT INFESTATION SURVEY AND MONITORING | L.S. |
| 7.88 AB | RODENT BAIT STATIONS | EACH |
| 7.88 AC | BAITING OF RODENT BAIT STATIONS | EACH |
| 7.88 AD | WATERBUG BAIT APPLICATION | BLOCK |

[Added 05-24-2013]

13. Refer to Page 366, **Subsection 6.40.2.(C)(c)(1)(m) Software Requirements**, as modified by Article 1 on page A1-2; Delete the text under **Subsection (m)**, in its entirety; Substitute the following revised text:

“(m) **Software Requirements:** Microsoft Windows 7 Professional SP1, 32 bit; Microsoft Office Professional 2010; Microsoft Project 2010; Adobe Acrobat reader; Anti-Virus software package with 2 year updates subscription; and, either Auto Cad LT or Microsoft Visio Standard Edition, as directed by the Engineer.”

[Added 09-04-2013]

14. Refer to Page 384, the end of **Section 6.44 - White and Yellow Thermoplastic ReflectORIZED Pavement Markings**; Insert new **SECTION 6.44 PO**, after **Section 6.44**, as contained on the following pages A1-2k through A1-2m.

[Added 02-10-2014]

15. Refer to Pages 393 and 394, **SECTION 6.52 - Uniformed Full-Time Flagperson**; Delete **Section 6.52** on pages 393 and 394, but do not delete examples on pages 395 and 396; Substitute **SECTION 6.52 CG**, as contained on the following pages A1-2n and A1-2o.

**SECTION 6.44 PO
Lane Pavement Overlay**

6.44PO.1. DESCRIPTION. This section describes the furnishing and application of an approved Green Asphalt Pavement Color Scheme along designated bicycle lanes and Brick-Red Asphalt Pavement Color Scheme matching Quest's StreetBondCL Terracotta color along designated Select Bus Service (SBS) lanes, as indicated in the Contract Drawings or as directed by the Engineer.

6.44PO.2. REFERENCES.

- A. ASTM D-4541 Standard Test Method for Pull-Off Strength of Coatings Using Portable Adhesion Tester.
- B. ASTM D-4060 Test Method for Abrasion Resistance of Organic Coatings by the Taber Abrasion.
- C. ASTM D-522-93A Standard Test Method for Mandrel Bend Test of Attached Organic Coatings.
- D. ASTM G-155 QUV Accelerated Weathering Environment. Standard Practice for Operating Fluorescent Light Apparatus for UV Exposure of Nonmetallic Materials.
- E. ASTM D-2486 MEK rub test for chemical resistance.
- F. ASTM D-570 Standard Test Method for water absorption of plastics.
- G. ASTM E-303 British Pendulum test for friction.
- H. EPA 24 ASTM D3960-05 Volatile Organic Compounds.

6.44PO.3. SUBMITTALS.

- A. A copy of the current year accreditation certificate available from the Contractor or subcontractor who will be performing this work, or written verification from the coating supplier that the Contractor or subcontractor is qualified to perform this Work.
- B. Written and published specification for the application of the selected asphalt pavement coating.
- C. Confirmation of coating color.
- D. Proof of coating performance through a Certificate of Analysis or equivalent document as provided by the Contractor or the coating supplier.

6.44PO.4. MATERIALS.

The following table outlines minimum performance properties of a typical asphalt pavement coating.

| Characteristic | Test Specification | Measured result |
|---|--|---|
| Durability: Taber Abrasion resistance | ASTM D-4060 7 day cure, H-10 wheel (wet test) | < 5.0 g/1000 |
| Water sensitivity | ASTM D-570 Water absorption after 9 days: Remaining absorption after 1 hour of recovery: | < 10% < 1.0% |
| Color stability | ASTM G-155 QUV 2,000 hours (CIE units) | New York City Bike Lane Green $\Delta E < 1.5$ |
| Color stability | ASTM G-155 QUV 2,000 hours (CIE units) | Brick color $\Delta E < 1.5$ |

| | | |
|------------------------------|---|----------------------|
| Flexibility: Mandrel Bend | ASTM D-522-93A Flexibility as measured by Mandrel bend 0.5mm thick sample passes 10 mm at 21°C 0.5mm thick sample passes 125mm at -18°C | |
| Chemical resistance | ASTM D-2486 Modified MEK scrubs 16 dry mils, number of scrubs until 50% substrate exposed | >5000 |
| Adhesion to Asphalt | ASTM D-4541 | Substrate Failure |
| Friction Wet | ASTM E-303 British Pendulum Tester | >55 |
| Environmental Sensitivity | EPA 24 ASTM D-3960-05 Volatile Organic Compounds | VOC < 150 |

These properties shall be evidenced by Certificates of Analysis produced by an independent qualified testing facility.

Green Bicycle and Red Bus Lane Pavement Overlays furnished by the following manufacturers, or approved equivalent, are acceptable for use in this contract:

Ennis Paint, Inc.
1509 S. Kaufman Street
Ennis, TX 75119

Integrated Pavement Concepts, Inc.
102-17957 55th Avenue
Surrey, BC Canada V3S 6C4

Crafco, Inc.
420 N. Roosevelt Avenue
Chandler, AZ 85226

6.44PO.5. METHODS. The asphalt pavement coating system shall be applied to the pavement in accordance with the manufacturer's specification. In its hardened state the color shall be as specified, and as approved by the Engineer. The material shall present a marking whose color and chemical resistance will not degrade under normal exposure to calcium chloride, sodium chloride or automotive oils and fuels. Color pigments used shall remain stable under exposure to ultra violet light. A minimum of four (4) layers of coating material shall be applied to the pavement surface.

The Contractor shall be required to use the proper equipment in the application of the asphalt pavement coating, as per the recommendation of the coating supplier, and as approved by the Engineer.

Asphalt pavement must be stable, well compacted and generally in excellent condition for the application of the asphalt pavement coating to be successful. The Engineer shall make the final determination as to the suitability of the existing asphalt pavement.

The asphalt pavement surface shall be dry and free from all foreign matter, including but not limited to dirt, dust, de-icing materials, and chemical residue.

The asphalt pavement coating shall only be applied in the correct environmental conditions as instructed by the coating supplier, and as approved by the Engineer.

Refer to the instructions provided by the coating supplier regarding when the painted lane may be opened to traffic. Wait time is typically a function of the dry rate of the coating, and climate conditions.

The Engineer may, at his discretion, require the Contractor to remove all extraneous marks on the pavement made by the agents or employees of the Contractor, or made by others due to improper control or protection of the work area by the Contractor, his agents or employees. Any installation which, in the opinion of the Engineer, is not acceptable, whether by reason of poor workmanship, poor appearance, poor performance, poor materials, improper width or improper alignment, shall be reworked by the Contractor at no cost to the City. The Contractor shall replace rejected installation as directed by the Engineer, within fifteen (15) days after receiving written notification of the rejection of such completed work.

6.44PO.6. MEASUREMENT. The quantities to be measured for payment shall be the number of square yards of Lane Pavement Overlay, of each color, placed as specified to the satisfaction of the Engineer.

6.44PO.7. PRICES TO COVER. The unit prices bid per square yard of Green Bicycle Lane Pavement Overlay and Red Bus Lane Pavement Overlay shall cover the cost of all labor, materials, plant, equipment, insurance, and necessary incidentals required including, but not limited to, testing, cleaning, preparation of surfaces, and application of the lane pavement overlay materials, all in accordance with the contract plans and specifications, and as directed by the Engineer.

Payment will be made under:

| Item No. | Item | Pay Unit |
|----------|-------------------------------------|----------|
| 6.44 POG | GREEN BICYCLE LANE PAVEMENT OVERLAY | S.Y. |
| 6.44 POR | RED BUS LANE PAVEMENT OVERLAY | S.Y. |

SECTION 6.52 CG **Crossing Guard**

6.52CG.1. INTENT. This section describes the employment of full-time uniformed crossing guards to direct and detour traffic.

6.52CG.2. DESCRIPTION. The Contractor shall furnish an adequate number of competent crossing guards to control vehicular and pedestrian traffic when it is necessary to maintain alternating one-way traffic in one lane of a two-way roadway, and at all other locations where construction operations, construction vehicles and equipment, and temporary traffic patterns related to the construction operations require positive temporary traffic control for safe, efficient traffic operations.

6.52CG.3. METHODS. All crossing guards, whether paid for under this item or not, shall be proficient in speaking, writing and reading English and adequately trained, as approved by the Engineer, in controlling vehicular and pedestrian traffic at construction sites.

All crossing guards, whether paid for under this item or not, their apparel, hand-signaling devices, and active two-way radios shall be appropriate for use at roadway construction sites as approved by the Engineer.

Prior to the start of crossing guard operations, the Contractor shall provide to the Engineer a list of crossing guards to be used in the contract, identifying the source of crossing guard training for each individual. When requested by the Engineer, crossing guards shall demonstrate their competency in crossing guard procedures. Crossing guards not competent in controlling vehicular and pedestrian traffic procedures to the satisfaction of the Engineer shall be retrained or replaced at once. Each crossing guard paid under this item must be a full-time crossing guard. If any worker performing services under this item is also assigned the task of directing construction equipment (as per attached Example #2, worker acting as a flagperson 'A') or any laborer tasks, then such worker shall be deemed to be subject to the provisions of Labor Law §220 Prevailing Wage Schedule and will not be paid for under this Item.

6.52CG.4. MEASUREMENT. The quantity to be measured for payment shall be the number of person-hours of uniformed crossing guard service actually performed, as authorized by the Engineer. Laborers who are not full-time crossing guard will not be measured for payment as crossing guards under this or any other item. Each uniformed crossing guard shall be required to work a minimum of eight (8) hours a day and the Contractor will be given a minimum of twelve (12) hours advanced notice by the Engineer as to when to furnish a crossing guard.

6.52CG.5. PRICE TO COVER. The contract price per person-hour shall cover the cost of all labor, materials, equipment, and insurance necessary to employ a uniformed full-time crossing guard, and equip him/her with safety vests, hard hats, and signaling devices, including all other incidental costs necessary to control and detour traffic, as shown on the Contract Drawings, the Examples #1 and #2 on pages 395 and 396 (excluding worker acting as a flagperson "A" in Example #2), or as directed by the Engineer.

Payment for flagperson "A" in Example #2, shall be deemed to be included under other items of work, as appropriate.

Where there is no scheduled item for Crossing Guard, the cost of furnishing Crossing Guards as required shall be deemed included in the unit price bid for the Maintenance and Protection of Traffic item.

Payment will be made under:

| Item No. | Item | Pay Unit |
|----------|----------------|--------------------|
| 6.52 CG | CROSSING GUARD | PERSON-HOUR (P/HR) |

[Added 02-24-2014]

16. Refer to Pages 480 and 481, **Subsection 7.13.2.(B) MAINTENANCE OF STREETS**, 4th paragraph, beginning with the words "The Contractor shall maintain the traveled way . . .";
Delete the 4th paragraph, in its entirety;
Substitute the following text:

"The Contractor shall maintain the traveled way in such a condition and conduct operations in such a manner that snow and ice may be readily removed by others as and when necessary, and in such a manner that proper drainage is provided for the melting of snow in the banks resulting from normal plowing. However, the Contractor will not be responsible for snow or ice removal on the pavement or traveled way opened for public usage, except within the limits of the work zone(s) which may include, but is not be limited to, stairways, promenades, esplanade areas, and sidewalk, including those fronting his office and the Engineer's field office all of which will be the responsibility of the Contractor."

[Added 04-15-2015]

17. Refer to Page A1-2n of this Addendum, **Subsection 6.52CG.5. PRICE TO COVER**;
Add the following text as the second paragraph under **Subsection 6.52CG.5.:**

"The Contractor is advised that until the Comptroller of the City of New York sets a prevailing wage rate for crossing guards, there are no prevailing wage rates for crossing guards."

18. Refer to Pages 328 through 341, **Subsections 6.23.5. MEASUREMENT and 6.23.6. PRICES TO COVER**;
Delete **Subsection 6.23.5. MEASUREMENT and 6.23.6. PRICES TO COVER**, in their entirety;
Substitute **Subsection 6.23.5. MEASUREMENT (Revised) and 6.23.6. PRICES TO COVER (Revised)**, as contained on the following pages A1-2q through A1-2af

19. Refer to Page 511, **SECTIONS 7.97 THRU 8.01 (NO TEXT)**;
Change the words "**SECTIONS 7.97 THRU 8.01 (NO TEXT)**" to read "**SECTIONS 7.97 THRU 7.99 (NO TEXT)**";
Insert new Section 8.00 MT, as contained on the following pages A1-2ag Through A1-2ai;
Insert the words "**SECTION 8.01 (NO TEXT)**".

6.23.5. MEASUREMENT (Revised).

(A) The quantities of

- ITEM NO. 6.23 AA FURNISH AND INSTALL FIRE ALARM POST IN ACCORDANCE WITH F.D. STD. DWG. #141
- ITEM NO. 6.23 AB REMOVE EXISTING FIRE ALARM POST
- ITEM NO. 6.23 AC ADJUST FIRE ALARM POST TO NEW GRADE IN ACCORDANCE WITH F.D. STD. DWG. #167
- ITEM NO. 6.23 BA FURNISH AND INSTALL FIRE ALARM POST AND SUBBASE IN ACCORDANCE WITH F.D. STD. DWG. #141

to be measured for payment shall be the number of fire alarm posts with or without subbases, as specified, incorporated in the work as shown, specified or required, to the satisfaction of the Engineer; the number of fire alarm posts and/or empty housings actually delivered to the Fire Department's storehouse as shown, specified or required, to the satisfaction of the Engineer; or, the number of fire alarm posts adjusted to the new grade as shown, specified or required, to the satisfaction of the Engineer.

(B) The quantities of

- ITEM NO. 6.23 AF FURNISH AND INSTALL FIRE DEPARTMENT POLE TERMINAL (CHIPPY) BOX IN ACCORDANCE WITH FIRE DEPARTMENT STANDARD DRAWING #145AA
- ITEM NO. 6.23 AFA FURNISH AND INSTALL FIRE DEPARTMENT POLE TERMINAL (CHIPPY) BOX IN ACCORDANCE WITH FIRE DEPARTMENT STANDARD DRAWING #145AA WITHOUT TERMINATING CABLES
- ITEM NO. 6.23 BF FURNISH AND INSTALL FIRE DEPARTMENT POLE TERMINAL (HOFFMAN) BOX IN ACCORDANCE WITH FIRE DEPARTMENT STANDARD DRAWING #146
- ITEM NO. 6.23 BFE FURNISH AND INSTALL FIRE DEPARTMENT POLE TERMINAL (HOFFMAN) BOX IN ACCORDANCE WITH FIRE DEPARTMENT STANDARD DRAWING #146 WITHOUT TERMINATING CABLES

to be measured for payment shall be the number of pole terminal boxes of each type, incorporated in the work, complete, as shown, specified or required, to the satisfaction of the Engineer.

(C) The quantities of

- ITEM NO. 6.23 BBS FURNISH AND INSTALL 3" 90 DEGREE P.V.C. WIDE BEND, SCHEDULE 40, U.L. 651 (WITHOUT PAVEMENT EXCAVATION) IN ACCORDANCE WITH F.D. STD. DWG. #141
- ITEM NO. 6.23 BBSE FURNISH AND INSTALL 3" 90 DEGREE P.V.C. WIDE BEND, SCHEDULE 40, U.L. 651 (WITH PAVEMENT EXCAVATION) IN ACCORDANCE WITH F.D. STD. DWG. #141
- ITEM NO. 6.23 BH FURNISH AND INSTALL 4" 90 DEGREE P.V.C. WIDE BEND, SCHEDULE 40, U.L. 651 (WITHOUT PAVEMENT EXCAVATION) IN ACCORDANCE WITH F.D. STD. DWG. #141 OR #145AA
- ITEM NO. 6.23 BHE FURNISH AND INSTALL 4" 90 DEGREE P.V.C. WIDE BEND, SCHEDULE 40, U.L. 651 (WITH PAVEMENT EXCAVATION) IN ACCORDANCE WITH F.D. STD. DWG. #141 OR #145AA
- ITEM NO. 6.23 CB FURNISH AND INSTALL 2 - 3" 90 DEGREE P.V.C. WIDE BENDS, SCHEDULE 40, U.L. 651 IN ONE TRENCH (WITHOUT PAVEMENT EXCAVATION) IN ACCORDANCE WITH F.D. STD. DWG. #141
- ITEM NO. 6.23 CBE FURNISH AND INSTALL 2 - 3" 90 DEGREE P.V.C. WIDE BENDS, SCHEDULE 40, U.L. 651 IN ONE TRENCH (WITH PAVEMENT EXCAVATION) IN ACCORDANCE WITH F.D. STD. DWG. #141

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| ITEM NO. 6.23 XBB | FURNISH AND INSTALL 2" GALVANIZED STEEL 90 DEGREE BEND (WITHOUT PAVEMENT EXCAVATION) IN ACCORDANCE WITH F.D. STD. DWG. #145BB |
| ITEM NO. 6.23 XBBE | FURNISH AND INSTALL 2" GALVANIZED STEEL 90 DEGREE BEND (WITH PAVEMENT EXCAVATION) IN ACCORDANCE WITH F.D. STD. DWG. #145BB |
| ITEM NO. 6.23 XCC | FURNISH AND INSTALL 3" GALVANIZED STEEL 90-DEGREE BEND (WITHOUT PAVEMENT EXCAVATION) |
| ITEM NO. 6.23 XCCE | FURNISH AND INSTALL 3" GALVANIZED STEEL 90-DEGREE BEND (WITH PAVEMENT EXCAVATION) |
| ITEM NO. 6.23 XDD | FURNISH AND INSTALL 4" GALVANIZED STEEL 90-DEGREE BEND (WITHOUT PAVEMENT EXCAVATION) |
| ITEM NO. 6.23 XDDE | FURNISH AND INSTALL 4" GALVANIZED STEEL 90-DEGREE BEND (WITH PAVEMENT EXCAVATION) |

to be measured for payment shall be the number of bends of each type and size of eighteen (18") inch radius for fire alarm posts or poles installed in the work, complete, as shown, specified or required, to the satisfaction of the Engineering.

(D) The quantities of

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| ITEM NO. 6.23 BCS | FURNISH AND INSTALL 3" P.V.C. CONDUIT, SCHEDULE 40, U.L. 651 (WITHOUT PAVEMENT EXCAVATION) |
| ITEM NO. 6.23 BCSE | FURNISH AND INSTALL 3" P.V.C. CONDUIT, SCHEDULE 40, U.L. 651 (WITH PAVEMENT EXCAVATION) |
| ITEM NO. 6.23 BGS | FURNISH AND INSTALL 4" P.V.C. CONDUIT, SCHEDULE 40, U.L. 651 (WITHOUT PAVEMENT EXCAVATION) |
| ITEM NO. 6.23 BGSE | FURNISH AND INSTALL 4" P.V.C. CONDUIT, SCHEDULE 40, U.L. 651 (WITH PAVEMENT EXCAVATION) |
| ITEM NO. 6.23 BGT | FURNISH AND INSTALL 2 – 4" P.V.C. CONDUITS, SCHEDULE 40, U.L. 651 IN ONE TRENCH (WITHOUT PAVEMENT EXCAVATION, ONE ON TOP OF THE OTHER) |
| ITEM NO. 6.23 BGTE | FURNISH AND INSTALL 2 – 4" P.V.C. CONDUITS, SCHEDULE 40, U.L. 651 IN ONE TRENCH (WITH PAVEMENT EXCAVATION, ONE ON TOP OF THE OTHER) |
| ITEM NO. 6.23 CC | FURNISH AND INSTALL 2 – 3" P.V.C. CONDUITS, SCHEDULE 40, U.L. 651 IN ONE TRENCH (WITHOUT PAVEMENT EXCAVATION, ONE ON TOP OF THE OTHER) |
| ITEM NO. 6.23 CCE | FURNISH AND INSTALL 2 – 3" P.V.C. CONDUITS, SCHEDULE 40, U.L. 651 IN ONE TRENCH (WITH PAVEMENT EXCAVATION, ONE ON TOP OF THE OTHER) |
| ITEM NO. 6.23 XB | FURNISH AND INSTALL 2" STEEL GALVANIZED CONDUIT (WITHOUT PAVEMENT EXCAVATION) |
| ITEM NO. 6.23 XBE | FURNISH AND INSTALL 2" STEEL GALVANIZED CONDUIT (WITH PAVEMENT EXCAVATION) |
| ITEM NO. 6.23 XC | FURNISH AND INSTALL 3" GALVANIZED STEEL CONDUIT (WITHOUT PAVEMENT EXCAVATION) |
| ITEM NO. 6.23 XCE | FURNISH AND INSTALL 3" GALVANIZED STEEL CONDUIT (WITH PAVEMENT EXCAVATION) |
| ITEM NO. 6.23 XD | FURNISH AND INSTALL 4" GALVANIZED STEEL CONDUIT (WITHOUT PAVEMENT EXCAVATION) |
| ITEM NO. 6.23 XDE | FURNISH AND INSTALL 4" GALVANIZED STEEL CONDUIT (WITH PAVEMENT EXCAVATION) |

to be measured for payment shall be the number of linear feet of each size, number and kind of fire communication conduit and forty-eight (48") radius bends incorporated in the work, complete, as shown, specified or required, to the satisfaction of the Engineer, measured along the center line of each run of fire communication conduit, from center line of manhole to center line of manhole or to center line of fire alarm post or pole, as is applicable.

(E) The quantities of

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| ITEM NO. 6.23 BD | FURNISH AND INSTALL 4-PAIR FIRE ALARM CABLE |
| ITEM NO. 6.23 DC | FURNISH AND INSTALL 10 PAIR FIRE ALARM CABLE |
| ITEM NO. 6.23 DDA | FURNISH AND INSTALL 15 PAIR FIRE ALARM CABLE |
| ITEM NO. 6.23 DDB | FURNISH AND INSTALL 20 PAIR FIRE ALARM CABLE |
| ITEM NO. 6.23 DDC | FURNISH AND INSTALL 25 PAIR FIRE ALARM CABLE |
| ITEM NO. 6.23 DDD | FURNISH AND INSTALL 30 PAIR FIRE ALARM CABLE |
| ITEM NO. 6.23 DDE | FURNISH AND INSTALL 40 PAIR FIRE ALARM CABLE |
| ITEM NO. 6.23 DF | FURNISH AND INSTALL 45 PAIR FIRE ALARM CABLE |
| ITEM NO. 6.23 DG | FURNISH AND INSTALL 50 PAIR FIRE ALARM CABLE |
| ITEM NO. 6.23 DH | FURNISH AND INSTALL 55 PAIR FIRE ALARM CABLE |
| ITEM NO. 6.23 DJ | FURNISH AND INSTALL 60 PAIR FIRE ALARM CABLE |

to be measured for payment shall be the number of linear feet of each size and type of fire alarm cable, including slack, incorporated in the work, complete, as shown, specified or required, to the satisfaction of the Engineer, measured along the centerline of each run of fire alarm cable, continuously through manholes.

(F) The quantities of

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| ITEM NO. 6.23 BE | FURNISH AND INSTALL FIRE DEPARTMENT MANHOLE TYPE "A" WITH FRAME AND COVER IN ACCORDANCE WITH F.D. STD. DWG. #140, #144, & #144E |
| ITEM NO. 6.23 BES | FURNISH AND INSTALL FIRE DEPARTMENT SLOTTED MANHOLE TYPE "A" WITH FRAME AND COVER IN ACCORDANCE WITH F.D. STD. DWG. #140, #144S & #144E |
| ITEM NO. 6.23 EB | FURNISH AND INSTALL FIRE DEPARTMENT MANHOLE TYPE "B" WITH FRAME & COVER IN ACCORDANCE WITH F.D. STD. DWG. #140, #144, #144C, #144CC, & #144E |
| ITEM NO. 6.23 HH | FURNISH AND INSTALL F.D.N.Y. SIDEWALK HANDHOLE WITH FRAME AND COVER IN ACCORDANCE WITH F.D. STD. DWG. #144B OR #144E |
| ITEM NO. 6.23 HHA | FURNISH AND INSTALL F.D.N.Y. SIDEWALK HANDHOLE WITH FRAME AND COVER IN ACCORDANCE WITH F.D. STD. DWG. #143 |
| ITEM NO. 6.23 HHS | FURNISH AND INSTALL F.D.N.Y. SIDEWALK SLOTTED HANDHOLE WITH FRAME AND COVER IN ACCORDANCE WITH F.D. STD. DWG. #144E OR #144BS |

to be measured for payment shall be the number of each type manhole or handhole installed in the work, complete, as shown, specified or required, to the satisfaction of the Engineer.

(G) The quantities of

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| ITEM NO. 6.23 BFA | FURNISH AND INSTALL FIRE DEPARTMENT 48 WIRE TERMINAL BOX AND TERMINATE FIRE ALARM CABLES |
| ITEM NO. 6.23 BFB | FURNISH AND INSTALL FIRE DEPARTMENT 24 WIRE TERMINAL BOX AND TERMINATE FIRE ALARM CABLES |
| ITEM NO. 6.23 BFC | FURNISH AND INSTALL FIRE DEPARTMENT 12 WIRE TERMINAL BOX AND TERMINATE FIRE ALARM CABLES |

to be measured for payment shall be the number of terminal boxes of each type, incorporated in the work, complete, as shown, specified or required, to the satisfaction of the Engineer.

(H) The quantity of

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| ITEM NO. 6.23 BGB | FURNISH AND INSTALL 4" PVC CONDUIT TO 4" GALVANIZED STEEL BUSHING AS SHOWN IN F.D. STD. DWG. #145AA OR 146 |
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- ITEM NO. 6.23 BGD FURNISH AND INSTALL 3" PVC CONDUIT TO 3" GALVANIZED STEEL BUSHING AS SHOWN IN F.D. STD. DWG. #145AA OR 146
- ITEM NO. 6.23 BGR FURNISH AND INSTALL 4" PVC CONDUIT TO 2" GALVANIZED STEEL REDUCER BUSHING AS SHOWN IN F.D. STD. DWG. #145AA
- ITEM NO. 6.23 BGRA FURNISH AND INSTALL 4" PVC CONDUIT TO 3" GALVANIZED STEEL REDUCER BUSHING AS SHOWN IN F.D. STD. DWG. #145AA OR 146
- ITEM NO. 6.23 BGRC FURNISH AND INSTALL 3" PVC CONDUIT TO 2" GALVANIZED STEEL REDUCER BUSHING AS SHOWN IN F.D. STD. DWG. #145AA OR 146
- ITEM NO. 6.23 BGRE FURNISH AND INSTALL 3" PVC CONDUIT TO 4" GALVANIZED STEEL REDUCER BUSHING AS SHOWN IN F.D. STD. DWG. #145AA OR 146

to be measured for payment shall be the number of bushings incorporated in the work, complete, as shown, specified or required, to the satisfaction of the Engineer.

(I) The quantity of

- ITEM NO. 6.23 BP FURNISH AND INSTALL FIRE ALARM PEDESTAL BUMPERS (2 REQUIRED PER SET) IN ACCORDANCE WITH F.D. STD. DWG. #168

to be measured for payment shall be the number of sets of bumpers, incorporated in the work, complete, as shown, specified or required, to the satisfaction of the Engineer. Each set shall consist of two (2) bumpers.

(J) The quantities of

- ITEM NO. 6.23 FC REMOVE EXISTING F.D.N.Y. MANHOLE FRAME & COVER AND FURNISH AND INSTALL F.D.N.Y. FRAME & COVER IN ACCORDANCE WITH F.D. STD. DWG. #140
- ITEM NO. 6.23 HFC REMOVE EXISTING F.D.N.Y. SIDEWALK HANDHOLE FRAME & COVER AND FURNISH AND INSTALL F.D.N.Y. SIDEWALK HANDHOLE FRAME & COVER IN ACCORDANCE WITH F.D. STD. DWG. #143 OR #144B

to be measured for payment shall be the number of each type of existing F.D.N.Y. manhole frame & cover or sidewalk handhole frame & cover that have been replaced, at the locations shown or as directed and as shown on the Fire Department Standards, to the satisfaction of the Engineer.

(K) The quantities of

- ITEM NO. 6.23 FCA FURNISH AND INSTALL F.D.N.Y. MANHOLE FRAME & COVER IN ACCORDANCE WITH F.D. STD. DWG. #140
- ITEM NO. 6.23 FCB FURNISH AND INSTALL F.D.N.Y. MANHOLE COVER IN ACCORDANCE WITH F.D. STD. DWG. #140
- ITEM NO. 6.23 HC FURNISH AND INSTALL F.D.N.Y. SIDEWALK HANDHOLE COVER IN ACCORDANCE WITH F.D. STD. DWG. #143 OR #144B
- ITEM NO. 6.23 HFCA FURNISH AND INSTALL F.D.N.Y. SIDEWALK HANDHOLE FRAME AND COVER IN ACCORDANCE WITH F.D. STD. DWG. #143 OR #144B

to be measured for payment shall be the number of new manhole or sidewalk handhole frames with covers or manhole or sidewalk handhole covers incorporated in the work, complete, as shown, specified or required, to the satisfaction of the Engineer.

(L) The quantities of

- ITEM NO. 6.23 RH REMOVE EXISTING F.D.N.Y. SIDEWALK HANDHOLE
- ITEM NO. 6.23 RM REMOVE EXISTING F.D.N.Y. MANHOLE

to be measured for payment shall be the number of F.D.N.Y. manholes or sidewalk handholes actually removed, as specified, at the location shown or as directed, to the satisfaction of the Engineer.

(M) The quantities of

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| ITEM NO. 6.23 RIC | RODDING AND INSTALLING FIRE ALARM CABLE IN EXISTING TELEPHONE CONDUIT SYSTEM |
| ITEM NO. 6.23 RICA | ROD AND ROPE CONDUIT AND INSTALL 4 PAIR FIRE ALARM CABLE IN EXISTING VERIZON OR FIRE DEPARTMENT CONDUIT SYSTEM |
| ITEM NO. 6.23 RICB | ROD AND ROPE CONDUIT AND INSTALL 10 PAIR FIRE ALARM CABLE IN EXISTING VERIZON OR FIRE DEPARTMENT CONDUIT SYSTEM |
| ITEM NO. 6.23 RICC | ROD AND ROPE CONDUIT AND INSTALL 15 PAIR FIRE ALARM CABLE IN EXISTING VERIZON OR FIRE DEPARTMENT CONDUIT SYSTEM |
| ITEM NO. 6.23 RICD | ROD AND ROPE CONDUIT AND INSTALL 20 PAIR FIRE ALARM CABLE IN EXISTING VERIZON OR FIRE DEPARTMENT CONDUIT SYSTEM |
| ITEM NO. 6.23 RICE | ROD AND ROPE CONDUIT AND INSTALL 25 PAIR FIRE ALARM CABLE IN EXISTING VERIZON OR FIRE DEPARTMENT CONDUIT SYSTEM |
| ITEM NO. 6.23 RICF | ROD AND ROPE CONDUIT AND INSTALL 30 PAIR FIRE ALARM CABLE IN EXISTING VERIZON OR FIRE DEPARTMENT CONDUIT SYSTEM |
| ITEM NO. 6.23 RICG | ROD AND ROPE CONDUIT AND INSTALL 40 PAIR FIRE ALARM CABLE IN EXISTING VERIZON OR FIRE DEPARTMENT CONDUIT SYSTEM |
| ITEM NO. 6.23 RICH | ROD AND ROPE CONDUIT AND INSTALL 45 PAIR FIRE ALARM CABLE IN EXISTING VERIZON OR FIRE DEPARTMENT CONDUIT SYSTEM |
| ITEM NO. 6.23 RICJ | ROD AND ROPE CONDUIT AND INSTALL 50 PAIR FIRE ALARM CABLE IN EXISTING VERIZON OR FIRE DEPARTMENT CONDUIT SYSTEM |
| ITEM NO. 6.23 RICK | ROD AND ROPE CONDUIT AND INSTALL 55 PAIR FIRE ALARM CABLE IN EXISTING VERIZON OR FIRE DEPARTMENT CONDUIT SYSTEM |
| ITEM NO. 6.23 RICK | ROD AND ROPE CONDUIT AND INSTALL 60 PAIR FIRE ALARM CABLE IN EXISTING VERIZON OR FIRE DEPARTMENT CONDUIT SYSTEM |
| ITEM NO. 6.23 RR | ROD AND ROPE EXISTING CONDUIT |
| ITEM NO. 6.23 XY | FURNISH AND INSTALL POLYPROPYLENE DRAG ROPE |

to be measured for payment shall be the number of linear feet of drag rope, with or without rodding, or cable with rodding, including slack, incorporated in the work, complete, as shown, specified or required, to the satisfaction of the Engineer, measured along the center line of each run of drag rope.

(N) The quantities of

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| ITEM NO. 6.23 XAPE | FURNISH AND INSTALL 1/2" GALVANIZED STEEL CONDUIT POLE RISER IN ACCORDANCE WITH FIRE DEPARTMENT STANDARD DRAWING #145AA |
| ITEM NO. 6.23 XBPE | FURNISH AND INSTALL 2" GALVANIZED STEEL CONDUIT POLE RISER IN ACCORDANCE WITH FIRE DEPARTMENT STANDARD DRAWING #145AA |
| ITEM NO. 6.23 XCPE | FURNISH AND INSTALL 3" GALVANIZED STEEL CONDUIT POLE RISER IN ACCORDANCE WITH FIRE DEPARTMENT STANDARD DRAWING #145AA OR #146 |
| ITEM NO. 6.23 XDPE | FURNISH AND INSTALL 4" GALVANIZED STEEL CONDUIT POLE RISER IN ACCORDANCE WITH FIRE DEPARTMENT STANDARD DRAWING #145AA OR #146 |

to be measured for payment shall be the number of each type of conduit pole riser installed in the work, complete, as shown, specified or required, to the satisfaction of the Engineer.

(O) The quantity of

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| ITEM NO. 6.23 MW | FURNISH AND INSTALL 5/16 INCH 7 STRAND GALVANIZED STEEL MESSENGER WIRE AND APPURTENANCES |
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to be measured for payment shall be the number of linear feet of each size and type of steel messenger wire, including slack, incorporated in the work, complete, as shown, specified or required, to the satisfaction of the Engineer, measured along the centerline of each run.

(P) The quantity of

ITEM NO. 6.23 PP PAINT EXISTING FIRE ALARM POST AND/OR HOUSING

to be measured for payment shall be the number of fire alarm posts and/or boxes painted, complete, as specified or required, to the satisfaction of the Engineer.

6.23.6. PRICES TO COVER (Revised). Before payment is made for work done under this Section, the Contractor shall obtain a Certificate of Compliance from the Fire Department and file such certificate with the Engineer. The said certificate shall certify that all work at each location complies with the standards of, and is acceptable to, the Fire Department, Bureau of Communications.

The following contract items shall also include the cost of the permits and the letter of acceptance required and necessary to construct the new Fire Communications System at the locations shown or required all in accordance with the Contract Drawings, Specifications and Standards, and as directed by the Engineer.

(A) The contract prices bid for

- ITEM NO. 6.23 AA FURNISH AND INSTALL FIRE ALARM POST IN ACCORDANCE WITH F.D. STD. DWG. #141
- ITEM NO. 6.23 BA FURNISH AND INSTALL FIRE ALARM POST AND SUBBASE IN ACCORDANCE WITH F.D. STD. DWG. #141
- ITEM NO. 6.23 AB REMOVE EXISTING FIRE ALARM POST
- ITEM NO. 6.23 AC ADJUST FIRE ALARM POST TO NEW GRADE IN ACCORDANCE WITH F.D. STD. DWG. #167

shall be a unit price for each and shall cover the cost of all labor, materials, plant, equipment, insurance, samples, and tests required and necessary to furnish and install fire alarm post with or without subbase, as specified, and at the location shown or as directed and as shown on the Fire Department Standards; or to remove the fire alarm post and/or empty housing at the locations shown and deliver them to the Fire Department's Storehouse as directed; and shall include, but not be limited to, adjustment of base, subbase, and terminal box appurtenances, as may be required, at the locations shown or as directed. Said work shall include, but not be limited to, furnishing and installing base, subbase when specified, and appurtenances; connections; and furnishing and installing all other items necessary to complete this work and do all work incidental thereto, all in accordance with the Contract Drawings, Specifications and Standards, and as directed by the Engineer.

(B) The contract prices bid for

- ITEM NO. 6.23 AF FURNISH AND INSTALL FIRE DEPARTMENT POLE TERMINAL (CHIPPY) BOX IN ACCORDANCE WITH FIRE DEPARTMENT STANDARD DRAWING #145AA
- ITEM NO. 6.23 AFA FURNISH AND INSTALL FIRE DEPARTMENT POLE TERMINAL (CHIPPY) BOX IN ACCORDANCE WITH FIRE DEPARTMENT STANDARD DRAWING #145AA WITHOUT TERMINATING CABLES
- ITEM NO. 6.23 BF FURNISH AND INSTALL FIRE DEPARTMENT POLE TERMINAL (HOFFMAN) BOX IN ACCORDANCE WITH FIRE DEPARTMENT STANDARD DRAWING #146
- ITEM NO. 6.23 BFE FURNISH AND INSTALL FIRE DEPARTMENT POLE TERMINAL (HOFFMAN) BOX IN ACCORDANCE WITH FIRE DEPARTMENT STANDARD DRAWING #146 WITHOUT TERMINATING CABLES

shall be a unit price for each type pole terminal box and shall cover the cost of all labor, materials, plant, equipment, insurance, samples, and tests required and necessary to furnish and install the pole terminal box of the type and at the locations shown or as directed and as shown on the Fire Department Standards. Said work shall also include, but not limited to, connections, cable terminations, and furnishing and installing all other items necessary to complete this work and doing all work incidental thereto, all in accordance with the Contract Drawings, Specifications and Standards, and as directed by the Engineer.

(C) The contract prices bid for

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| ITEM NO. 6.23 BBS | FURNISH AND INSTALL 3" 90 DEGREE P.V.C. WIDE BEND, SCHEDULE 40, U.L. 651 (WITHOUT PAVEMENT EXCAVATION) IN ACCORDANCE WITH F.D. STD. DWG. #141 |
| ITEM NO. 6.23 BBSE | FURNISH AND INSTALL 3" 90 DEGREE P.V.C. WIDE BEND, SCHEDULE 40, U.L. 651 (WITH PAVEMENT EXCAVATION) IN ACCORDANCE WITH F.D. STD. DWG. #141 |
| ITEM NO. 6.23 BH | FURNISH AND INSTALL 4" 90 DEGREE P.V.C. WIDE BEND, SCHEDULE 40, U.L. 651 (WITHOUT PAVEMENT EXCAVATION) IN ACCORDANCE WITH F.D. STD. DWG. #141 OR #145AA |
| ITEM NO. 6.23 BHE | FURNISH AND INSTALL 4" 90 DEGREE P.V.C. WIDE BEND, SCHEDULE 40, U.L. 651 (WITH PAVEMENT EXCAVATION) IN ACCORDANCE WITH F.D. STD. DWG. #141 OR #145AA |
| ITEM NO. 6.23 CB | FURNISH AND INSTALL 2 - 3" 90 DEGREE P.V.C. WIDE BENDS, SCHEDULE 40, U.L. 651 IN ONE TRENCH (WITHOUT PAVEMENT EXCAVATION) IN ACCORDANCE WITH F.D. STD. DWG. #141 |
| ITEM NO. 6.23 CBE | FURNISH AND INSTALL 2 - 3" 90 DEGREE P.V.C. WIDE BENDS, SCHEDULE 40, U.L. 651 IN ONE TRENCH (WITH PAVEMENT EXCAVATION) IN ACCORDANCE WITH F.D. STD. DWG. #141 |
| ITEM NO. 6.23 XBB | FURNISH AND INSTALL 2" GALVANIZED STEEL 90 DEGREE BEND (WITHOUT PAVEMENT EXCAVATION) IN ACCORDANCE WITH F.D. STD. DWG. #145BB |
| ITEM NO. 6.23 XBBE | FURNISH AND INSTALL 2" GALVANIZED STEEL 90 DEGREE BEND (WITH PAVEMENT EXCAVATION) IN ACCORDANCE WITH F.D. STD. DWG. #145BB |
| ITEM NO. 6.23 XCC | FURNISH AND INSTALL 3" GALVANIZED STEEL 90-DEGREE BEND (WITHOUT PAVEMENT EXCAVATION) |
| ITEM NO. 6.23 XCCE | FURNISH AND INSTALL 3" GALVANIZED STEEL 90-DEGREE BEND (WITH PAVEMENT EXCAVATION) |
| ITEM NO. 6.23 XDD | FURNISH AND INSTALL 4" GALVANIZED STEEL 90-DEGREE BEND (WITHOUT PAVEMENT EXCAVATION) |
| ITEM NO. 6.23 XDDE | FURNISH AND INSTALL 4" GALVANIZED STEEL 90-DEGREE BEND (WITH PAVEMENT EXCAVATION) |

shall be a unit price for each type of conduit bend, single or double, with or without pavement excavation, as specified, and shall cover the cost of all labor, materials, plant, equipment, insurance, samples, and tests required and necessary to furnish and install a two (2") or three (3") or four (4") inch bend, single or double in one trench, of eighteen (18") inch radius for fire alarm posts or poles at the locations shown or as directed and as shown on the Fire Department Standards. Said work shall also include, but not be limited to, excavation and backfilling, connections, and furnishing and installing all other items necessary to complete this work and doing all work incidental thereto, all in accordance with the Contract Drawings, Specifications and Standards, and as directed by the Engineer.

(D) The contract prices bid for

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| ITEM NO. 6.23 BCS | FURNISH AND INSTALL 3" P.V.C. CONDUIT, SCHEDULE 40, U.L. 651 (WITHOUT PAVEMENT EXCAVATION) |
| ITEM NO. 6.23 BCSE | FURNISH AND INSTALL 3" P.V.C. CONDUIT, SCHEDULE 40, U.L. 651 (WITH PAVEMENT EXCAVATION) |
| ITEM NO. 6.23 BGS | FURNISH AND INSTALL 4" P.V.C. CONDUIT, SCHEDULE 40, U.L. 651 (WITHOUT PAVEMENT EXCAVATION) |
| ITEM NO. 6.23 BGSE | FURNISH AND INSTALL 4" P.V.C. CONDUIT, SCHEDULE 40, U.L. 651 (WITH PAVEMENT EXCAVATION) |
| ITEM NO. 6.23 BGT | FURNISH AND INSTALL 2 - 4" P.V.C. CONDUITS, SCHEDULE 40, U.L. 651 IN ONE TRENCH (WITHOUT PAVEMENT EXCAVATION, ONE ON TOP OF THE OTHER) |
| ITEM NO. 6.23 BGTE | FURNISH AND INSTALL 2 - 4" P.V.C. CONDUITS, SCHEDULE 40, U.L. 651 IN ONE TRENCH (WITH PAVEMENT EXCAVATION, ONE ON TOP OF THE OTHER) |

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| ITEM NO. 6.23 CC | FURNISH AND INSTALL 2 – 3" P.V.C. CONDUITS, SCHEDULE 40, U.L. 651 IN ONE TRENCH (WITHOUT PAVEMENT EXCAVATION, ONE ON TOP OF THE OTHER) |
| ITEM NO. 6.23 CCE | FURNISH AND INSTALL 2 – 3" P.V.C. CONDUITS, SCHEDULE 40, U.L. 651 IN ONE TRENCH (WITH PAVEMENT EXCAVATION, ONE ON TOP OF THE OTHER) |
| ITEM NO. 6.23 XB | FURNISH AND INSTALL 2" STEEL GALVANIZED CONDUIT (WITHOUT PAVEMENT EXCAVATION) |
| ITEM NO. 6.23 XBE | FURNISH AND INSTALL 2" STEEL GALVANIZED CONDUIT (WITH PAVEMENT EXCAVATION) |
| ITEM NO. 6.23 XC | FURNISH AND INSTALL 3" GALVANIZED STEEL CONDUIT (WITHOUT PAVEMENT EXCAVATION) |
| ITEM NO. 6.23 XCE | FURNISH AND INSTALL 3" GALVANIZED STEEL CONDUIT (WITH PAVEMENT EXCAVATION) |
| ITEM NO. 6.23 XD | FURNISH AND INSTALL 4" GALVANIZED STEEL CONDUIT (WITHOUT PAVEMENT EXCAVATION) |
| ITEM NO. 6.23 XDE | FURNISH AND INSTALL 4" GALVANIZED STEEL CONDUIT (WITH PAVEMENT EXCAVATION) |

shall be a unit price per linear foot for each size and kind of fire communication conduit and forty-eight (48") inch radius bends, single or double, with or without pavement excavation, as specified, and shall cover the cost of all labor, materials, plant, equipment, insurance, samples, and tests required and necessary to furnish and install the fire communication conduit (single or double in one trench) of the sizes and kind (P.V.C. or Galvanized Steel) specified, to the lines and grades and at the locations shown or as directed, with or without pavement excavation, as specified, of all materials of whatever nature encountered (except excavation of boulders in open cut and ledge rock). Said work shall also include, but not limited to, concrete cradles and encasements as required; all sheeting and bracing; pumping; bridging, decking; removal or abandonment, as required, of parts of the existing Fire Communications System; breaking down and filling in of abandoned fire appurtenances; furnishing and installing select granular fill material for backfill; backfilling; compaction; cleaning up; temporary restoration of street surfaces; installation and removal of temporary fire alarm communication facilities, if required; connections; and furnishing and installing all other items necessary to complete this work and do all work incidental thereto, all in accordance with the Contract Drawings, Specifications and Standards, and as directed by the Engineer.

(E) The contract prices bid for

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| ITEM NO. 6.23 BD | FURNISH AND INSTALL 4-PAIR FIRE ALARM CABLE |
| ITEM NO. 6.23 DC | FURNISH AND INSTALL 10 PAIR FIRE ALARM CABLE |
| ITEM NO. 6.23 DDA | FURNISH AND INSTALL 15 PAIR FIRE ALARM CABLE |
| ITEM NO. 6.23 DDB | FURNISH AND INSTALL 20 PAIR FIRE ALARM CABLE |
| ITEM NO. 6.23 DDC | FURNISH AND INSTALL 25 PAIR FIRE ALARM CABLE |
| ITEM NO. 6.23 DDD | FURNISH AND INSTALL 30 PAIR FIRE ALARM CABLE |
| ITEM NO. 6.23 DDE | FURNISH AND INSTALL 40 PAIR FIRE ALARM CABLE |
| ITEM NO. 6.23 DF | FURNISH AND INSTALL 45 PAIR FIRE ALARM CABLE |
| ITEM NO. 6.23 DG | FURNISH AND INSTALL 50 PAIR FIRE ALARM CABLE |
| ITEM NO. 6.23 DH | FURNISH AND INSTALL 55 PAIR FIRE ALARM CABLE |
| ITEM NO. 6.23 DJ | FURNISH AND INSTALL 60 PAIR FIRE ALARM CABLE |

shall be a unit price per linear foot for each size and type of fire alarm cable, and shall cover the cost of all labor, materials, plant, equipment, insurance, samples, and tests required and necessary to furnish and install the fire alarm cable of the sizes and at the locations shown or as directed. Said work shall also include, but not be limited to, the cost of splices as required; cutting existing conduit, if required; protection and maintenance of the system for the duration of the guarantee period as required; and furnishing and installing all other items necessary to complete this work and do all work incidental thereto, all in accordance with the Contract Drawings, Specifications and Standards, and as directed by the Engineer.

(F) The contract prices bid for

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| ITEM NO. 6.23 BE | FURNISH AND INSTALL FIRE DEPARTMENT MANHOLE TYPE "A" WITH FRAME AND COVER IN ACCORDANCE WITH F.D. STD. DWG. #140, #144, & #144E |
| ITEM NO. 6.23 BES | FURNISH AND INSTALL FIRE DEPARTMENT SLOTTED MANHOLE TYPE "A" WITH FRAME AND COVER IN ACCORDANCE WITH F.D. STD. DWG. #140, #144S & #144E |
| ITEM NO. 6.23 EB | FURNISH AND INSTALL FIRE DEPARTMENT MANHOLE TYPE "B" WITH FRAME & COVER IN ACCORDANCE WITH F.D. STD. DWG. #140, #144, #144C, #144CC, & #144E |
| ITEM NO. 6.23 HH | FURNISH AND INSTALL F.D.N.Y. SIDEWALK HANDHOLE WITH FRAME AND COVER IN ACCORDANCE WITH F.D. STD. DWG. #144B OR #144E |
| ITEM NO. 6.23 HHA | FURNISH AND INSTALL F.D.N.Y. SIDEWALK HANDHOLE WITH FRAME AND COVER IN ACCORDANCE WITH F.D. STD. DWG. #143 |
| ITEM NO. 6.23 HHS | FURNISH AND INSTALL F.D.N.Y. SIDEWALK SLOTTED HANDHOLE WITH FRAME AND COVER IN ACCORDANCE WITH F.D. STD. DWG. #144E OR #144BS |

shall be a unit price for each type manhole or sidewalk handhole and shall cover the cost of all labor, materials, plant, equipment, insurance, samples, and tests required and necessary to furnish and install the Fire Department manhole with frame and cover or sidewalk handhole with frame and cover, as specified, at the locations shown or as directed and as shown on the Fire Department Standards. Said work shall also include, but not limited to, excavation of all materials of whatever nature encountered (except excavation of boulders in open cut and ledge rock); reinforcement; all sheeting and bracing; pumping; bridging, decking; removal or abandonment, as required of parts of the existing Fire Communications System; breaking down and filling in of abandoned fire appurtenances; backfill; compaction; cleaning up; temporary restoration of street surfaces; installation and removal of temporary fire alarm communication facilities, if required; connections; and furnishing and installing all other items necessary to complete this work and do all work incidental thereto, all in accordance with the Contract Drawings, Specifications and Standards, and as directed by the Engineer.

(G) The contract prices bid for

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| ITEM NO. 6.23 BFA | FURNISH AND INSTALL FIRE DEPARTMENT 48 WIRE TERMINAL BOX AND TERMINATE FIRE ALARM CABLES |
| ITEM NO. 6.23 BFB | FURNISH AND INSTALL FIRE DEPARTMENT 24 WIRE TERMINAL BOX AND TERMINATE FIRE ALARM CABLES |
| ITEM NO. 6.23 BFC | FURNISH AND INSTALL FIRE DEPARTMENT 12 WIRE TERMINAL BOX AND TERMINATE FIRE ALARM CABLES |

shall be a unit price bid for each type cable terminal box and shall cover the cost of all labor, materials, plant, equipment, insurance, samples, and tests required and necessary to furnish and install the cable terminal box of the type and at the locations shown or as directed and as shown on the Fire Department Standards. Said work shall also include, but not be limited to, connections, cable terminations, and furnishing and installing all other items necessary to complete this work and do all work incidental thereto, all in accordance with the Contract Drawings, Specifications and Standards, and as directed by the Engineer.

(H) The contract price bid for

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| ITEM NO. 6.23 BGB | FURNISH AND INSTALL 4" PVC CONDUIT TO 4" GALVANIZED STEEL BUSHING AS SHOWN IN F.D. STD. DWG. #145AA OR 146 |
| ITEM NO. 6.23 BGD | FURNISH AND INSTALL 3" PVC CONDUIT TO 3" GALVANIZED STEEL BUSHING AS SHOWN IN F.D. STD. DWG. #145AA OR 146 |
| ITEM NO. 6.23 BGR | FURNISH AND INSTALL 4" PVC CONDUIT TO 2" GALVANIZED STEEL REDUCER BUSHING AS SHOWN IN F.D. STD. DWG. #145AA |
| ITEM NO. 6.23 BGRA | FURNISH AND INSTALL 4" PVC CONDUIT TO 3" GALVANIZED STEEL REDUCER BUSHING AS SHOWN IN F.D. STD. DWG. #145AA OR 146 |

- ITEM NO. 6.23 BGRC FURNISH AND INSTALL 3" PVC CONDUIT TO 2" GALVANIZED STEEL REDUCER BUSHING AS SHOWN IN F.D. STD. DWG. #145AA OR 146
- ITEM NO. 6.23 BGRE FURNISH AND INSTALL 3" PVC CONDUIT TO 4" GALVANIZED STEEL REDUCER BUSHING AS SHOWN IN F.D. STD. DWG. #145AA OR 146

shall be a unit price bid for each reducer and shall cover the cost of all labor, materials, plant, equipment, insurance, samples, and tests required and necessary to furnish and install a bushing of the type specified and at the location shown or as directed and as shown on the Fire Department Standards. Said work shall also include, but not be limited to, furnishing and installing all other items necessary to complete this work and do all work incidental thereto, all in accordance with the Contract Drawings, Specifications and Standards, and as directed by the Engineer.

(I) The contract price bid for

- ITEM NO. 6.23 BP FURNISH AND INSTALL FIRE ALARM PEDESTAL BUMPERS (2 REQUIRED PER SET) IN ACCORDANCE WITH F.D. STD. DWG. #168

shall be a unit price for each set of bumpers (2 required per set) and shall cover the cost of all labor, materials, plant, equipment, insurance, samples, and tests required and necessary to furnish and install bumpers at the locations shown or as directed and as shown on the Fire Department Standards. Said work shall also include, but not be limited to, excavation and backfill; furnishing and installing steel bar reinforcement and concrete; compaction; cleaning up; temporary restoration of sidewalk surfaces; painting; and furnishing and installing all other items necessary to complete this work; and do all work incidental thereto, all in accordance with the Contract Drawings, Specifications and Standards, and as directed by the Engineer.

(J) The contract prices bid for

- ITEM NO. 6.23 FC REMOVE EXISTING F.D.N.Y. MANHOLE FRAME & COVER AND FURNISH AND INSTALL F.D.N.Y. FRAME & COVER IN ACCORDANCE WITH F.D. STD. DWG. #140
- ITEM NO. 6.23 HFC REMOVE EXISTING F.D.N.Y. SIDEWALK HANDHOLE FRAME & COVER AND FURNISH AND INSTALL F.D.N.Y. SIDEWALK HANDHOLE FRAME & COVER IN ACCORDANCE WITH F.D. STD. DWG. #143 OR #144B

shall be a unit price for each and shall cover the cost of all labor, materials, plant, equipment, insurance, samples, and tests required and necessary to remove existing F.D.N.Y. manhole frame and cover or sidewalk handhole frame & cover and furnish and install manhole frame and cover or sidewalk handhole frame & cover, at the locations shown or as directed and as shown on the Fire Department Standards. Said work shall also include, but not be limited to, furnishing and installing all other items necessary to complete this work and do all work incidental thereto, all in accordance with the Contract Drawings, Specifications and Standards, and as directed by the Engineer.

(K) The contract prices bid for

- ITEM NO. 6.23 FCA FURNISH AND INSTALL F.D.N.Y. MANHOLE FRAME & COVER IN ACCORDANCE WITH F.D. STD. DWG. #140
- ITEM NO. 6.23 FCB FURNISH AND INSTALL F.D.N.Y. MANHOLE COVER IN ACCORDANCE WITH F.D. STD. DWG. #140
- ITEM NO. 6.23 HC FURNISH AND INSTALL F.D.N.Y. SIDEWALK HANDHOLE COVER IN ACCORDANCE WITH F.D. STD. DWG. #143 OR #144B
- ITEM NO. 6.23 HFCA FURNISH AND INSTALL F.D.N.Y. SIDEWALK HANDHOLE FRAME AND COVER IN ACCORDANCE WITH F.D. STD. DWG. #143 OR #144B

shall be a unit price bid for each type and shall cover the cost of all labor, materials, plant, equipment, insurance, samples, and tests required and necessary to furnish and install the Fire Department manhole frame and/or cover or furnish and install sidewalk handhole frame and/or cover, at the location shown or as directed and as shown on the Fire Department Standards. Said work shall also include, but not be limited to, the excavation of all materials of whatever nature encountered (except excavation of boulders in open

cut and ledge rock); reinforcement; removal or abandonment, as required of parts of the existing Fire Communications System; breaking down and filling in of abandoned fire appurtenances; backfill; compaction; cleaning up; temporary restoration of street surfaces; installation and removal of temporary fire alarm communication facilities, if required; connections; and furnishing and installing all other items necessary to complete this work and do all work incidental thereto, all in accordance with the Contract Drawings, Specifications and Standards, and as directed by the Engineer.

(L) The contract prices bid for

ITEM NO. 6.23 RH REMOVE EXISTING F.D.N.Y. SIDEWALK HANDHOLE
ITEM NO. 6.23 RM REMOVE EXISTING F.D.N.Y. MANHOLE

shall be a unit price for each manhole or sidewalk handhole and shall cover the cost of all labor, materials, plant, equipment, insurance, samples, and tests required and necessary to remove an existing Fire Department manhole or sidewalk handhole, as specified, at the location shown or as directed. Said work shall also include, but not limited to, the removal or abandonment of an existing F.D.N.Y. manhole or sidewalk handhole; breaking down and filling in of abandoned fire appurtenances; furnishing and installing backfill; compaction; cleaning up; temporary restoration of street surfaces, if required; and furnishing and installing all other items necessary to complete this work and do all work incidental thereto, all in accordance with the Contract Drawings, Specifications and Standards, and as directed by the Engineer.

(M) The contract prices bid for

ITEM NO. 6.23 RIC RODDING AND INSTALLING FIRE ALARM CABLE IN EXISTING TELEPHONE CONDUIT SYSTEM
ITEM NO. 6.23 RICA ROD AND ROPE CONDUIT AND INSTALL 4 PAIR FIRE ALARM CABLE IN EXISTING VERIZON OR FIRE DEPARTMENT CONDUIT SYSTEM
ITEM NO. 6.23 RICB ROD AND ROPE CONDUIT AND INSTALL 10 PAIR FIRE ALARM CABLE IN EXISTING VERIZON OR FIRE DEPARTMENT CONDUIT SYSTEM
ITEM NO. 6.23 RICC ROD AND ROPE CONDUIT AND INSTALL 15 PAIR FIRE ALARM CABLE IN EXISTING VERIZON OR FIRE DEPARTMENT CONDUIT SYSTEM
ITEM NO. 6.23 RICD ROD AND ROPE CONDUIT AND INSTALL 20 PAIR FIRE ALARM CABLE IN EXISTING VERIZON OR FIRE DEPARTMENT CONDUIT SYSTEM
ITEM NO. 6.23 RICE ROD AND ROPE CONDUIT AND INSTALL 25 PAIR FIRE ALARM CABLE IN EXISTING VERIZON OR FIRE DEPARTMENT CONDUIT SYSTEM
ITEM NO. 6.23 RICF ROD AND ROPE CONDUIT AND INSTALL 30 PAIR FIRE ALARM CABLE IN EXISTING VERIZON OR FIRE DEPARTMENT CONDUIT SYSTEM
ITEM NO. 6.23 RICG ROD AND ROPE CONDUIT AND INSTALL 40 PAIR FIRE ALARM CABLE IN EXISTING VERIZON OR FIRE DEPARTMENT CONDUIT SYSTEM
ITEM NO. 6.23 RICH ROD AND ROPE CONDUIT AND INSTALL 45 PAIR FIRE ALARM CABLE IN EXISTING VERIZON OR FIRE DEPARTMENT CONDUIT SYSTEM
ITEM NO. 6.23 RICJ ROD AND ROPE CONDUIT AND INSTALL 50 PAIR FIRE ALARM CABLE IN EXISTING VERIZON OR FIRE DEPARTMENT CONDUIT SYSTEM
ITEM NO. 6.23 RICJ ROD AND ROPE CONDUIT AND INSTALL 55 PAIR FIRE ALARM CABLE IN EXISTING VERIZON OR FIRE DEPARTMENT CONDUIT SYSTEM
ITEM NO. 6.23 RICK ROD AND ROPE CONDUIT AND INSTALL 60 PAIR FIRE ALARM CABLE IN EXISTING VERIZON OR FIRE DEPARTMENT CONDUIT SYSTEM
ITEM NO. 6.23 RR ROD AND ROPE EXISTING CONDUIT
ITEM NO. 6.23 XY FURNISH AND INSTALL POLYPROPYLENE DRAG ROPE

shall be a unit price per linear foot for drag rope with or without rodding, or cable with rodding and shall cover the cost of all labor, materials, plant, equipment, insurance, samples, and tests required and necessary to furnish and install drag rope of the type specified at the locations shown or as directed and as shown on the Fire Department Standards, including furnishing and installing all other items necessary to complete this work and do all work incidental thereto, all in accordance with the Contract Drawings, Specifications and Standards, and as directed by the Engineer.

(N) The contract prices bid for

- ITEM NO. 6.23 XAPE FURNISH AND INSTALL 1/2" GALVANIZED STEEL CONDUIT POLE RISER IN ACCORDANCE WITH FIRE DEPARTMENT STANDARD DRAWING #145AA
- ITEM NO. 6.23 XBPE FURNISH AND INSTALL 2" GALVANIZED STEEL CONDUIT POLE RISER IN ACCORDANCE WITH FIRE DEPARTMENT STANDARD DRAWING #145AA
- ITEM NO. 6.23 XCPE FURNISH AND INSTALL 3" GALVANIZED STEEL CONDUIT POLE RISER IN ACCORDANCE WITH FIRE DEPARTMENT STANDARD DRAWING #145AA OR #146
- ITEM NO. 6.23 XDPE FURNISH AND INSTALL 4" GALVANIZED STEEL CONDUIT POLE RISER IN ACCORDANCE WITH FIRE DEPARTMENT STANDARD DRAWING #145AA OR #146

shall be a unit price for each type of conduit pole riser and shall cover the cost of all labor, materials, plant, equipment, insurance, samples, and tests required and necessary to furnish and install each type of pole riser at the location shown or as directed and as shown on the Fire Department Standards. Said work shall also include, but not be limited to, connections, and furnishing and installing all other items necessary to complete this work and doing all work incidental thereto, all in accordance with the Contract Drawings, Specifications and Standards, and as directed by the Engineer.

(O) The contract price bid for

- ITEM NO. 6.23 MW FURNISH AND INSTALL 5/16 INCH 7 STRAND GALVANIZED STEEL MESSENGER WIRE AND APPURTENANCES

shall be a unit price per linear foot for each size and type of steel messenger wire, and shall cover the cost of all labor, materials, plant, equipment, insurance, samples, and tests required and necessary to furnish and install the fire alarm messenger wire of the size and type specified at the locations shown or as directed and as shown on the Fire Department Standards including, but not limited to, furnishing and installing approved galvanized clamps and other appurtenances as may be required, to complete this work and do all work incidental thereto, all in accordance with the Contract Drawings, Specifications and Standards, and as directed by the Engineer.

(P) The contract price bid for

- ITEM NO. 6.23 PP PAINT EXISTING FIRE ALARM POST AND/OR HOUSING

shall be a unit price for each fire alarm post and/or box and shall cover the cost of all labor, materials, plant, equipment, insurance, samples, and tests required and necessary to paint existing fire alarm posts and/or boxes as directed and doing all work incidental thereto, all in accordance with the Contract Drawings, Specifications and Standards, and as directed by the Engineer.

Payment will be made under:

| Item No. | Item | Pay Unit |
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| 6.23 AA | FURNISH AND INSTALL FIRE ALARM POST IN ACCORDANCE WITH F.D. STD. DWG. #141 | EACH |
| 6.23 AB | REMOVE EXISTING FIRE ALARM POST | EACH |
| 6.23 AC | ADJUST FIRE ALARM POST TO NEW GRADE IN ACCORDANCE WITH F.D. STD. DWG. #167 | EACH |
| 6.23 AF | FURNISH AND INSTALL FIRE DEPARTMENT POLE TERMINAL (CHIPPY)BOX IN ACCORDANCE WITH FIRE DEPARTMENT STANDARD DRAWING #145AA | EACH |

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| 6.23 AFA | FURNISH AND INSTALL FIRE DEPARTMENT POLE TERMINAL (CHIPPY) BOX IN ACCORDANCE WITH FIRE DEPARTMENT STANDARD DRAWING #145AA WITHOUT TERMINATING CABLES | EACH |
| 6.23 BA | FURNISH AND INSTALL FIRE ALARM POST AND SUBBASE IN ACCORDANCE WITH F.D. STD. DWG. #141 | EACH |
| 6.23 BBS | FURNISH AND INSTALL 3" 90 DEGREE P.V.C. WIDE BEND, SCHEDULE 40, U.L. 651 (WITHOUT PAVEMENT EXCAVATION) IN ACCORDANCE WITH F.D. STD. DWG. #141 | EACH |
| 6.23 BBSE | FURNISH AND INSTALL 3" 90 DEGREE P.V.C. WIDE BEND, SCHEDULE 40, U.L. 651 (WITH PAVEMENT EXCAVATION) IN ACCORDANCE WITH F.D. STD. DWG. #141 | EACH |
| 6.23 BCS | FURNISH AND INSTALL 3" P.V.C. CONDUIT, SCHEDULE 40, U.L. 651 (WITHOUT PAVEMENT EXCAVATION) | L.F. |
| 6.23 BCSE | FURNISH AND INSTALL 3" P.V.C. CONDUIT, SCHEDULE 40, U.L. 651 (WITH PAVEMENT EXCAVATION) | L.F. |
| 6.23 BD | FURNISH AND INSTALL 4-PAIR FIRE ALARM CABLE | L.F. |
| 6.23 BE | FURNISH AND INSTALL FIRE DEPARTMENT MANHOLE TYPE "A" WITH FRAME AND COVER IN ACCORDANCE WITH F.D. STD. DWG. #140, #144, & #144E | EACH |
| 6.23 BES | FURNISH AND INSTALL FIRE DEPARTMENT SLOTTED MANHOLE TYPE "A" WITH FRAME AND COVER IN ACCORDANCE WITH F.D. STD. DWG. #140, #144S & #144E | EACH |
| 6.23 BF | FURNISH AND INSTALL FIRE DEPARTMENT POLE TERMINAL (HOFFMAN) BOX IN ACCORDANCE WITH FIRE DEPARTMENT STANDARD DRAWING #146 | EACH |
| 6.23 BFA | FURNISH AND INSTALL FIRE DEPARTMENT 48 WIRE TERMINAL BOX AND TERMINATE FIRE ALARM CABLES | EACH |
| 6.23 BFB | FURNISH AND INSTALL FIRE DEPARTMENT 24 WIRE TERMINAL BOX AND TERMINATE FIRE ALARM CABLES | EACH |
| 6.23 BFC | FURNISH AND INSTALL FIRE DEPARTMENT 12 WIRE TERMINAL BOX AND TERMINATE FIRE ALARM CABLES | EACH |
| 6.23 BFE | FURNISH AND INSTALL FIRE DEPARTMENT POLE TERMINAL (HOFFMAN) BOX IN ACCORDANCE WITH FIRE DEPARTMENT STANDARD DRAWING #146 WITHOUT TERMINATING CABLES | EACH |
| 6.23 BGB | FURNISH AND INSTALL 4" PVC CONDUIT TO 4" GALVANIZED STEEL BUSHING AS SHOWN IN F.D. STD. DWG. #145AA OR 146 | EACH |
| 6.23 BGD | FURNISH AND INSTALL 3" PVC CONDUIT TO 3" GALVANIZED STEEL BUSHING AS SHOWN IN F.D. STD. DWG. #145AA OR 146 | EACH |
| 6.23 BGR | FURNISH AND INSTALL 4" PVC CONDUIT TO 2" GALVANIZED STEEL REDUCER BUSHING AS SHOWN IN F.D. STD. DWG. #145AA | EACH |
| 6.23 BGRA | FURNISH AND INSTALL 4" PVC CONDUIT TO 3" GALVANIZED STEEL REDUCER BUSHING AS SHOWN IN F.D. STD. DWG. #145AA OR 146 | EACH |
| 6.23 BGRC | FURNISH AND INSTALL 3" PVC CONDUIT TO 2" GALVANIZED STEEL REDUCER BUSHING AS SHOWN IN F.D. STD. DWG. #145AA OR 146 | EACH |
| 6.23 BGRE | FURNISH AND INSTALL 3" PVC CONDUIT TO 4" GALVANIZED STEEL REDUCER BUSHING AS SHOWN IN F.D. STD. DWG. #145AA OR 146 | EACH |
| 6.23 BGS | FURNISH AND INSTALL 4" P.V.C. CONDUIT, SCHEDULE 40, U.L. 651 (WITHOUT PAVEMENT EXCAVATION) | L.F. |
| 6.23 BGSE | FURNISH AND INSTALL 4" P.V.C. CONDUIT, SCHEDULE 40, U.L. 651 (WITH PAVEMENT EXCAVATION) | L.F. |
| 6.23 BGT | FURNISH AND INSTALL 2 - 4" P.V.C. CONDUITS, SCHEDULE 40, U.L. 651 IN ONE TRENCH (WITHOUT PAVEMENT EXCAVATION, ONE ON TOP OF THE OTHER) | L.F. |

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| 6.23 BGTE | FURNISH AND INSTALL 2 – 4" P.V.C. CONDUITS, SCHEDULE 40, U.L. 651 IN ONE TRENCH (WITH PAVEMENT EXCAVATION, ONE ON TOP OF THE OTHER) | L.F. |
| 6.23 BH | FURNISH AND INSTALL 4" 90 DEGREE P.V.C. WIDE BEND, SCHEDULE 40, U.L. 651 (WITHOUT PAVEMENT EXCAVATION) IN ACCORDANCE WITH F.D. STD. DWG. #141 OR #145AA | EACH |
| 6.23 BHE | FURNISH AND INSTALL 4" 90 DEGREE P.V.C. WIDE BEND, SCHEDULE 40, U.L. 651 (WITH PAVEMENT EXCAVATION) IN ACCORDANCE WITH F.D. STD. DWG. #141 OR #145AA | EACH |
| 6.23 BP | FURNISH AND INSTALL FIRE ALARM PEDESTAL BUMPERS (2 REQUIRED PER SET) IN ACCORDANCE WITH F.D. STD. DWG. #168 | SETS |
| 6.23 CB | FURNISH AND INSTALL 2 – 3" 90 DEGREE P.V.C. WIDE BENDS, SCHEDULE 40, U.L. 651 IN ONE TRENCH (WITHOUT PAVEMENT EXCAVATION) IN ACCORDANCE WITH F.D. STD. DWG. #141 | EACH |
| 6.23 CBE | FURNISH AND INSTALL 2 – 3" 90 DEGREE P.V.C. WIDE BENDS, SCHEDULE 40, U.L. 651 IN ONE TRENCH (WITH PAVEMENT EXCAVATION) IN ACCORDANCE WITH F.D. STD. DWG. #141 | EACH |
| 6.23 CC | FURNISH AND INSTALL 2 – 3" P.V.C. CONDUITS, SCHEDULE 40, U.L. 651 IN ONE TRENCH (WITHOUT PAVEMENT EXCAVATION, ONE ON TOP OF THE OTHER) | L.F. |
| 6.23 CCE | FURNISH AND INSTALL 2 – 3" P.V.C. CONDUITS, SCHEDULE 40, U.L. 651 IN ONE TRENCH (WITH PAVEMENT EXCAVATION, ONE ON TOP OF THE OTHER) | L.F. |
| 6.23 DC | FURNISH AND INSTALL 10 PAIR FIRE ALARM CABLE | L.F. |
| 6.23 DDA | FURNISH AND INSTALL 15 PAIR FIRE ALARM CABLE | L.F. |
| 6.23 DDB | FURNISH AND INSTALL 20 PAIR FIRE ALARM CABLE | L.F. |
| 6.23 DDC | FURNISH AND INSTALL 25 PAIR FIRE ALARM CABLE | L.F. |
| 6.23 DDD | FURNISH AND INSTALL 30 PAIR FIRE ALARM CABLE | L.F. |
| 6.23 DDE | FURNISH AND INSTALL 40 PAIR FIRE ALARM CABLE | L.F. |
| 6.23 DF | FURNISH AND INSTALL 45 PAIR FIRE ALARM CABLE | L.F. |
| 6.23 DG | FURNISH AND INSTALL 50 PAIR FIRE ALARM CABLE | L.F. |
| 6.23 DH | FURNISH AND INSTALL 55 PAIR FIRE ALARM CABLE | L.F. |
| 6.23 DJ | FURNISH AND INSTALL 60 PAIR FIRE ALARM CABLE | L.F. |
| 6.23 EB | FURNISH AND INSTALL FIRE DEPARTMENT MANHOLE TYPE "B" WITH FRAME & COVER IN ACCORDANCE WITH F.D. STD. DWG. #140, #144, #144C, #144CC, & #144E | EACH |
| 6.23 FC | REMOVE EXISTING F.D.N.Y. MANHOLE FRAME & COVER AND FURNISH AND INSTALL F.D.N.Y. FRAME & COVER IN ACCORDANCE WITH F.D. STD. DWG. #140 | EACH |
| 6.23 FCA | FURNISH AND INSTALL F.D.N.Y. MANHOLE FRAME & COVER IN ACCORDANCE WITH F.D. STD. DWG. #140 | EACH |
| 6.23 FCB | FURNISH AND INSTALL F.D.N.Y. MANHOLE COVER IN ACCORDANCE WITH F.D. STD. DWG. #140 | EACH |
| 6.23 HC | FURNISH AND INSTALL F.D.N.Y. SIDEWALK HANDHOLE COVER IN ACCORDANCE WITH F.D. STD. DWG. #143 AND #144B | EACH |
| 6.23 HFC | REMOVE EXISTING F.D.N.Y. SIDEWALK HANDHOLE FRAME & COVER AND FURNISH AND INSTALL F.D.N.Y. SIDEWALK HANDHOLE FRAME & COVER IN ACCORDANCE WITH F.D. STD. DWG. #143 & #144B | EACH |
| 6.23 HFCA | FURNISH AND INSTALL F.D.N.Y. SIDEWALK HANDHOLE FRAME AND COVER IN ACCORDANCE WITH F.D. STD. DWG. #143 AND #144B | EACH |
| 6.23 HH | FURNISH AND INSTALL F.D.N.Y. SIDEWALK HANDHOLE WITH FRAME AND COVER IN ACCORDANCE WITH F.D. STD. DWG. #143, #144B, & #144E | EACH |
| 6.23 HHA | FURNISH AND INSTALL F.D.N.Y. SIDEWALK HANDHOLE WITH FRAME AND COVER IN ACCORDANCE WITH F.D. STD. DWG. #143 | EACH |

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| 6.23 HHS | FURNISH AND INSTALL F.D.N.Y. SIDEWALK SLOTTED HANDHOLE WITH FRAME AND COVER IN ACCORDANCE WITH F.D. STD. DWG. #144E & #144BS | EACH |
| 6.23 MW | FURNISH AND INSTALL 5/16 INCH 7 STRAND GALVANIZED STEEL MESSENGER WIRE AND APPURTENANCES | L.F. |
| 6.23 PP | PAINT EXISTING FIRE ALARM POST AND/OR HOUSING | EACH |
| 6.23 RH | REMOVE EXISTING F.D.N.Y. SIDEWALK HANDHOLE | EACH |
| 6.23 RIC | RODDING AND INSTALLING FIRE ALARM CABLE IN EXISTING TELEPHONE CONDUIT SYSTEM | L.F. |
| 6.23 RICA | ROD AND ROPE CONDUIT AND INSTALL 4 PAIR FIRE ALARM CABLE IN EXISTING VERIZON OR FIRE DEPARTMENT CONDUIT SYSTEM | L.F. |
| 6.23 RICB | ROD AND ROPE CONDUIT AND INSTALL 10 PAIR FIRE ALARM CABLE IN EXISTING VERIZON OR FIRE DEPARTMENT CONDUIT SYSTEM | L.F. |
| 6.23 RICC | ROD AND ROPE CONDUIT AND INSTALL 15 PAIR FIRE ALARM CABLE IN EXISTING VERIZON OR FIRE DEPARTMENT CONDUIT SYSTEM | L.F. |
| 6.23 RICD | ROD AND ROPE CONDUIT AND INSTALL 20 PAIR FIRE ALARM CABLE IN EXISTING VERIZON OR FIRE DEPARTMENT CONDUIT SYSTEM | L.F. |
| 6.23 RICE | ROD AND ROPE CONDUIT AND INSTALL 25 PAIR FIRE ALARM CABLE IN EXISTING VERIZON OR FIRE DEPARTMENT CONDUIT SYSTEM | L.F. |
| 6.23 RICF | ROD AND ROPE CONDUIT AND INSTALL 30 PAIR FIRE ALARM CABLE IN EXISTING VERIZON OR FIRE DEPARTMENT CONDUIT SYSTEM | L.F. |
| 6.23 RICG | ROD AND ROPE CONDUIT AND INSTALL 40 PAIR FIRE ALARM CABLE IN EXISTING VERIZON OR FIRE DEPARTMENT CONDUIT SYSTEM | L.F. |
| 6.23 RICH | ROD AND ROPE CONDUIT AND INSTALL 45 PAIR FIRE ALARM CABLE IN EXISTING VERIZON OR FIRE DEPARTMENT CONDUIT SYSTEM | L.F. |
| 6.23 RICJ | ROD AND ROPE CONDUIT AND INSTALL 50 PAIR FIRE ALARM CABLE IN EXISTING VERIZON OR FIRE DEPARTMENT CONDUIT SYSTEM | L.F. |
| 6.23 RICK | ROD AND ROPE CONDUIT AND INSTALL 55 PAIR FIRE ALARM CABLE IN EXISTING VERIZON OR FIRE DEPARTMENT CONDUIT SYSTEM | L.F. |
| 6.23 RICK | ROD AND ROPE CONDUIT AND INSTALL 60 PAIR FIRE ALARM CABLE IN EXISTING VERIZON OR FIRE DEPARTMENT CONDUIT SYSTEM | L.F. |
| 6.23 RM | REMOVE EXISTING F.D.N.Y. MANHOLE | EACH |
| 6.23 RR | ROD AND ROPE EXISTING CONDUIT | L.F. |
| 6.23 XAPE | FURNISH AND INSTALL 1/2" GALVANIZED STEEL CONDUIT POLE RISER IN ACCORDANCE WITH FIRE DEPARTMENT STANDARD DRAWING #145AA | EACH |
| 6.23 XB | FURNISH AND INSTALL 2" GALVANIZED STEEL CONDUIT (WITHOUT PAVEMENT EXCAVATION) | L.F. |
| 6.23 XBB | FURNISH AND INSTALL 2" GALVANIZED STEEL 90 DEGREE BEND (WITHOUT PAVEMENT EXCAVATION) IN ACCORDANCE WITH F.D. STD. DWG. #145BB | EACH |
| 6.23 XBBE | FURNISH AND INSTALL 2" GALVANIZED STEEL 90 DEGREE BEND (WITH PAVEMENT EXCAVATION) IN ACCORDANCE WITH F.D. STD. DWG. #145BB | EACH |
| 6.23 XBE | FURNISH AND INSTALL 2" GALVANIZED STEEL CONDUIT (WITH PAVEMENT EXCAVATION) | L.F. |

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| 6.23 XBPE | FURNISH AND INSTALL 2" GALVANIZED STEEL CONDUIT POLE RISER IN ACCORDANCE WITH FIRE DEPARTMENT STANDARD DRAWING #145AA | EACH |
| 6.23 XCPE | FURNISH AND INSTALL 3" GALVANIZED STEEL CONDUIT POLE RISER IN ACCORDANCE WITH FIRE DEPARTMENT STANDARD DRAWING #145AA OR #146 | EACH |
| 6.23 XDPE | FURNISH AND INSTALL 4" GALVANIZED STEEL CONDUIT POLE RISER IN ACCORDANCE WITH FIRE DEPARTMENT STANDARD DRAWING #145AA OR #146 | EACH |
| 6.23 XCC | FURNISH AND INSTALL 3" GALVANIZED STEEL 90-DEGREE BEND (WITHOUT PAVEMENT EXCAVATION) | EACH |
| 6.23 XCCE | FURNISH AND INSTALL 3" GALVANIZED STEEL 90-DEGREE BEND (WITH PAVEMENT EXCAVATION) | EACH |
| 6.23 XD | FURNISH AND INSTALL 4" GALVANIZED STEEL CONDUIT (WITHOUT PAVEMENT EXCAVATION) | L.F. |
| 6.23 XDD | FURNISH AND INSTALL 4" GALVANIZED STEEL 90-DEGREE BEND (WITHOUT PAVEMENT EXCAVATION) | EACH |
| 6.23 XDDE | FURNISH AND INSTALL 4" GALVANIZED STEEL 90-DEGREE BEND (WITH PAVEMENT EXCAVATION) | EACH |
| 6.23 XDE | FURNISH AND INSTALL 4" GALVANIZED STEEL CONDUIT (WITH PAVEMENT EXCAVATION) | L.F. |
| 6.23 XC | FURNISH AND INSTALL 3" GALVANIZED STEEL CONDUIT (WITHOUT PAVEMENT EXCAVATION) | L.F. |
| 6.23 XCE | FURNISH AND INSTALL 3" GALVANIZED STEEL CONDUIT (WITH PAVEMENT EXCAVATION) | L.F. |
| 6.23 XY | FURNISH AND INSTALL POLYPROPYLENE DRAG ROPE | L.F. |

SECTION 8.00 MT – Microtrenching

8.00MT.1. INTENT. This section describes Microtrenching.

8.00MT.2. DESCRIPTION. Microtrenching involves the placement of shallow depth microduct systems in street and sidewalk applications. This process includes the saw cutting of sidewalks and/or streets, installation of microduct systems and fiber optic wiring, restoration of sidewalks and/or streets and disposal of all unused debris. Locations of saw-cut can be from manhole (if necessary) in street to curb entrance; either at curb seam or below curb; and then in sidewalk expansion joint between flag and curb. All microduct systems must be placed at a minimum depth of 4" below sidewalk grade and 6" in depth below street grade locations. If manhole entrance is necessary the excavation to enter manhole system shall be the minimum required to gain entrance to said manhole.

8.00MT.3. GENERAL REQUIRMENTS.

(A) DISPOSAL OF MATERIALS

1. All materials that are not reused pursuant to Subsection 6.02.3 of the NYC Department of Transportation, Standard Highway Specifications shall be disposed of in compliance with the applicable requirements of **Sections 1.06.47 and 1.06.48** in General Conditions.

(B) EXPOSED STRUCTURES TO BE PROTECTED

1. All exposed sewers, manholes, receiving basins, water mains and other hardware and structures shall be carefully protected.

8.00MT.4. MICROTRENCHING CONSTRUCTION METHODS.

All trenching/excavations shall be carried to the required depths in such a manner as to produce a pathway that produces an undisturbed subgrade and allows for standard restoration.

1. Cutting expansion joints in Sidewalks: Expansion joints shall be cut using a wet-cut methodology to reduce damage to adjacent sidewalk flags. All cuts shall be approximately 1" wide to approximately 9"-12" in depth to allow for the microduct system to be placed at a minimum of 4" below sidewalk grade. The depth of the cut will depend upon the depth of the existing flags, pathway required and existing sidewalk furniture and fixtures (including but not limited to tree pits, roots, parking meters, mailboxes, bike racks, etc.).
2. Sidewalk flags and placement of utility handholes and/or grade-level boxes: All handholes/grade-level boxes shall be centered in a sidewalk flag. This flag will be removed in whole, sub-grade access placed and sidewalk flag restored. At no time will handhole or grade-level box be in the corner of a sidewalk flag to ensure concrete integrity of the flag. In the event of the removal of a sidewalk flag, the flag should be removed in its entirety and replaced in accordance with all applicable sidewalk restoration rules and regulations.
 - a. All handholes and/or grade-level boxes must meet weight bearing requirements for the application and comply with ANSI / SCTE 77 2007:

| Application | Loading Requirements | | | |
|--|--|-----------------------------|-------------------|-----------------------------|
| | Design Load (lbs) | Test Load w/ F.S. 1.5 (lbs) | Design Load (psf) | Test Load w/ F.S. 1.5 (psf) |
| Tier 5 – Sidewalk applications with a safety factor for occasional non-deliberate vehicular traffic | 5,000 | 7,500 | 600 | 900 |
| Tier 8 – Sidewalk applications with a safety factor for non-deliberate vehicular traffic | 8,000 | 12,000 | 600 | 900 |
| Tier 15 – Driveway, parking lot, and off roadway applications subject to occasional non-deliberate heavy vehicular traffic | 15,000 | 22,500 | 800 | 1,200 |
| Tier 22 – Driveway, parking lot and off roadway applications subject to occasional non-deliberate heavy vehicular traffic | 22,500 | 33,750 | 800 | 1,200 |
| AASHTO H-20 - Deliberate vehicular traffic applications | Certified pre-cast concrete, cast iron, or AASHTO recognized materials | | | |

- b. Minimum handhole size is 17"x30"x24"
 - c. Grade-level Box minimum size is 3'x5'x3'
 - d. All handholes/grade-level boxes must be composite to negate slippage due to environmental factors
3. Manhole entrance: Manholes are generally located within the street/vehicular pathway. Access to any manhole shall be kept to a minimum to gain entrance for microduct pathway, unless other obstructions exist which would make it necessary to continue the pathway in the roadway. Entrances to manhole shall be via pit directly adjacent to manhole and in direct line with pathway direction to minimize vehicular and pedestrian impact. All manhole related activities shall be performed in accordance with applicable rules and regulations.
4. Duct pathway placement: All microducts shall be placed vertically into the saw-cut trench, and the microduct should always be covered with requisite backfill material

8.00MT.5. RESTORATION.

- 1. Sidewalk expansion joint restoration:
 - a. Sidewalk expansion joints are to be restored using only NYC DOT approved materials. All expansion joints shall be recessed 1/2" below finished sidewalk surface and sealed with sealer, on an approved bond breaker, as soon as practical.

- b. All expansion joints shall be sealed with a sealant meeting ASTM C 920, Type M, Grade P, Class 25, Use T₁, and color to match to that of the adjacent sidewalk. The sealant shall be a rapid-setting, polyurethane-based joint sealant and shall be a self-leveling compound that provides for elongation. The sealant should be applied to avoid spillage onto sidewalk surface area.
 - i. Joints are to be recessed 1/2" with the finished surface.
 - ii. Joints should not be sealed during inclement weather.
 - iii. Application of sealant shall be as per the manufacturer's written instructions.

2. Sidewalk flag restoration:

- a. Any flags that need to be restored must be done according the NYC DOT specifications as outlined in the Standard Highway Specifications Volumes I and II, latest version and as currently amended.
- b. Any flags that are below the standards set forth in NYC DOT specifications as outlined in the Standard Highway Specifications, Volumes I and II, and are directly adjacent to the original flag being replaced shall be replaced in accordance with Section 2(a) above.

3. Street/Asphalt restoration:

- a. All street/asphalt restoration must be done according to the NYC DOT specifications Section 2.22, Type 1 – Hot poured sealer as outlined in the Standard Highway Specifications Volumes I and II, latest version and as currently amended. Joints are to be finished flush with the pavement.

4. Street/Concrete restoration:

- a. All street/concrete pavement restoration shall be done in accordance with the requirements for sidewalk expansion joint restoration, above.

END OF SECTION

ATTACH TO CONTRACT DOCUMENTS

**THE CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
INFRASTRUCTURE DIVISION
BUREAU OF DESIGN**

PROJECT ID: CONISPH2B

**FOR THE CONSTRUCTION OF STORM AND SANITARY SEWERS AND TRUNK WATER MAINS AND
APPURTENANCES IN CONEY ISLAND AREA PHASE 2B**

INCLUDING WATER MAIN WORK

Together With All Work Incidental Thereto

BOROUGH OF BROOKLYN

ADDENDUM NO. 2

DATED: April 14, 2015

This Addendum is issued for the purpose of amending the requirements of the contract documents and is hereby made part of said contract documents to the same extent as if it was originally included therein.

The Standard Sewer And Water Main Specifications of the Department of Environmental Protection (dated July 1, 2014), Sewer Design Standards of the Department of Environmental Protection (dated September 2007) Revised January 2009), Water Main Standard Drawings of the Department of Environmental Protection (latest revisions), Specifications For Trunk Main Work of the Department of Environmental Protection (dated July 2014) and the Standard Highway Specifications (Volumes I and II) of the Department of Transportation (dated November 1, 2010) of The City of New York, shall be included as part of the contract documents. These said specifications and standard drawings are hereby revised under the following section headings:

- A. NOTICE TO BIDDERS
- B. AMENDMENTS TO THE STANDARD HIGHWAY SPECIFICATIONS
- C. AMENDMENTS TO THE STANDARD SEWER AND WATER MAIN SPECIFICATIONS
- D. AMENDMENTS TO THE SPECIFICATIONS FOR TRUNK MAIN WORK

A. NOTICE TO BIDDERS

- (1) (A) The Contractor is advised that copies of the Standard Sewer And Water Main Specifications (dated July 1, 2014), Sewer Design Standards (dated (September 2007) Revised January 2009), Specifications For Trunk Main Work (dated July 2014) and Water Main Standard Drawings (latest revisions) are available to all prospective bidders at no cost upon presentation of receipt of purchase of Bid Package at the following location:

Department of Design and Construction
Division of Infrastructure
Design Services, Specifications, 3rd Floor
30-30 Thomson Avenue
Long Island City, NY 11101

(B) The Contractor is advised that copies of the Standard Highway Specifications (Volume I and II) (dated November 1, 2010), Standard Highway Details of Construction (latest revisions), Division of Street Lighting Specifications (latest revisions), Division of Street Lighting Standard Drawings (latest revisions), Standard Specifications for Traffic Signals (latest revisions), and Standard Drawings for Traffic Signals (latest revisions) are available to all prospective bidders for a fee at the following location:

Department of Transportation
55 Water Street, Ground Floor
New York City, NY 10041

- (2) The Contractor is notified that a Notice To Proceed (NTP) date will be issued for work to commence within twenty-one (21) to thirty (30) days of Contract Registration.
- (3) The Contractor shall furnish, install, maintain and subsequently remove temporary Protective Tree Barriers. Protective Tree Barriers shall be Type B, unless otherwise directed by the Engineer, and shall be constructed and installed as shown on the Protective Tree Barrier sketch in Department Of Transportation, Standard Highway Details Of Construction, Drawing No. H-1046A, as directed by the Engineer, and in accordance with Department of Parks and Recreation requirements.
- (4) All utility locations and invert elevations are not guaranteed, nor is there any guarantee that all existing utilities, whether functional or abandoned within the project area are shown.
- (5) All existing house connections shall be maintained and supported during construction. The Contractor shall replace any existing house connection damaged as a result of the Contractor's construction operations as ordered by the Engineer at no cost to the City.
- (6) The Contractor is advised that any City owned light poles, traffic signals, street name signs, traffic signs and encumbrances including, but not limited to, underground conduit displaced as the result of the installation of the new sewers, water mains, catch basins, catch basin connections and appurtenances shall be replaced in kind and as directed by the Engineer. The cost of such work shall be deemed included in the prices bid for all items of work under this contract.
- (7) The Contractor is notified that Victaulic Style 77 Coupling is no longer acceptable for use in any steel water main work. All reference to Victaulic Style 77 Coupling within the Standard Sewer And Water Main Specifications of the Department of Environmental Protection (dated July 1, 2014), the Water Main Standard Drawings of the Department of Environmental Protection (latest revisions), the Specifications For Trunk Main Work (dated July 2014), and the contract drawings, shall be replaced with Bolted Split-Sleeve Restrained Coupling.
- (8) The Contractor is notified that wherever the Item No. "6.52" and words "flagger", "flagperson" and "flagman" are used in the contract documents and drawings it shall mean the Item No. "6.52 CG" and the words "Crossing Guard", respectively. The Contractor is advised that until the Comptroller of the

City of New York sets a prevailing wage rate for crossing guards, there are no prevailing wage rates for crossing guards.

- (9) The Contractor is notified that the fuel cost per gallon used in the formula under **Sub-Article 26.2.8** of the Standard Construction Contract for **Extra Work** will be derived from the fuel price index for the United States East Coast published weekly by the United States Energy Information Administration ("USEIA"), and available on its website at <http://www.eia.gov/petroleum/gasdiesel/>. The USEIA published cost per gallon for the applicable fuel on the East Coast for the week in which the first day of each calendar quarter during the contract term occurs (i.e., January 1st, April 1st, July 1st and September 1st) will be used in the reimbursement formula for all **Extra Work** invoiced that was performed during that calendar quarter. Should the USEIA stop publishing this fuel price index, the fuel cost per gallon will be determined by reference to a substitute index to be agreed upon by the Contractor and the City.

- (10) The Contractor is responsible for any damage to the existing street and traffic signal equipment, including underground conduits and the safety of both pedestrian and vehicular traffic for the duration of the contract.

Should any conduits, cables or foundations need repair due to the Contractor's negligent operations during construction, all work shall be performed according to NYCDOT Bureau of Traffic's Standard Drawings and Specifications at the sole expense of the Contractor.

It is the Contractor's responsibility to secure an approved electrical contractor to perform all traffic signal work (if any). For list of approved electrical contractors, contact Mr. Michael R. LeFosse of New York City Department of Transportation at (718) 786-2236.

- (11) The Contractor is advised that where the existing roadway pavement is designated to be replaced from curb to curb, then no full depth saw cutting of pavement for sewer and water main trenches will be required, except at the limits of full width pavement restoration. No separate or additional payment will be made for any saw cutting.

- (12) The Contractor shall exercise extreme caution and take all necessary precautions in placing sheeting and excavating to prevent any damage to the existing NYC TRANSIT'S subway structures and its appurtenances during construction work throughout the project area. The Contractor shall take full responsibility to protect the said NYC TRANSIT'S subway structures and its appurtenances and any damage caused by the Contractor's operations shall be made good by the Contractor to the satisfaction of the Engineer at no additional cost to the City.

- (13) The Contractor shall submit shop drawings to NYC Transit Authority showing all the details and methods of construction, such as, sheeting and bracing, including the Contractor's procedure and sequence of construction, supporting and/or protection of the existing TA's structures and its appurtenances, with necessary design calculations for approval prior to starting of the construction. The design shall be made by a New York State Licensed Professional Engineer skilled in this type of construction and as further evidenced by the imprint of Professional Engineer's seal and signature on all drawings. The cost of this work shall be deemed included in the price bid for all items of work under this contract.

- (14) The Contractor is notified that as part of this contract a "Cathodic Protection (CP) System Survey and Engineering Study of Soil and Stray Currents and Cathodic Protection System Design" has been prepared by the firm of CorrTech, Inc.. The Contractor's attention is directed to the Cathodic Protection Design drawings consisting of six (6) sheets that are included in the contract drawings; to the Cathodic Protection (CP) System Survey and Engineering Study of Soil and Stray Currents and Cathodic Protection System Design report that consists of eighteen (18) pages that is attached to the end of this addendum; and to the Quantity and Cost Estimating report consisting of one (1) page that is attached to the end of this addendum.

- (15)The Contractor is advised that the cost of sheeting for 16 inch Ductile Iron Pipe shall be deemed included in the price bid for item No. 70.91SW20 – FURNISHING AND PLACING SHEETING AND BRACING IN TRENCH FOR WATER MAIN PIPE 20-INCH IN DIAMETER.
- (16)The Contractor is advised that the Department of Design and Construction has contacted The United States Army Corps of Engineers pertaining to required permits needed to perform the proposed modification work on the specified outfalls. It shall be the Contractor's responsibility to pursue and obtain such permits and no work shall commence until such permits have been obtained for this project. No additional or separate payment shall be made for this work in order to comply with the requirements, for the required updating of permits and obtaining the permits. The cost of such work shall be deemed included in the prices bid for all contract items of work.
- (17)The Contractor is advised that the Department of Design and Construction is in the process of filing permit application with the New York State Department of Environmental Conservation (NYSDEC), under the Environmental Conservation Law, Article 25 Tidal Wetlands, implemented by 6NYCRR Part 661; and, Title 5 of Article 15, implemented by 6NYCRR Part 401 - Water Quality Certification. No work shall commence until the above-mentioned permit has been obtained for this project by the City. It is the Contractor's responsibility to comply with the permit requirements and to update the said permit. No separate or additional payment shall be made to the Contractor for updating of said permits. The cost of such work shall be deemed included in the prices bid for all contract items of work.
- (18)The Contractor is advised that the Department of Design and Construction is in the process of filing permit application with the New York State Department of State (NYSDOS); Costal Management Program Consistency Determination. No work shall commence until such permit has been obtained for this project by the Contractor. No additional or separate payment shall be made for the work in order to comply with the requirements, for the required updating of permits and obtaining the permits. The cost of such work shall be deemed included in the prices bid for all contract items of work.

B. AMENDMENTS TO THE STANDARD HIGHWAY SPECIFICATIONS

- (1) **Refer** to Standard Highway Specifications Volume II (November 1, 2010), Page 370:
Add the following new **Section 6.40 DC**:

SECTION 6.40 DC - Engineer's Field Office With Conference Room

6.40DC.1. DESCRIPTION. The Contractor shall provide, furnish and maintain a fully equipped field office (Type D) and conference room for the exclusive use of and occupancy by the Department's engineering personnel and/or Supervising Consultant (herein after called "City personnel"). The field office shall be at a location approved by the Engineer and shall be a commercial building, store front, or with the approval of both Office of Construction Mitigation and Coordination (OCMC) and the Community Board it may be a mobile trailer(s). If a trailer is used it shall be subject to approval by the Engineer, and all necessary permits shall be obtained by the Contractor. The Contractor may have facilities in an adjoining area separated by a lockable door, provided such facilities are in a location approved by the Engineer.

The field office structure and occupancy thereof shall conform to the requirements of all laws, rules, regulations and orders applicable to it.

The field office and all equipment, except as otherwise specified, may be new materials or may be used materials in good condition and satisfactory to the Engineer.

6.40DC.2. MATERIALS AND METHODS. All materials and methods shall comply with the requirements of **Subsections 6.40.2., 6.40.3. and 6.40.4.** of the Standard Highway Specifications, for a Type D Field Office, except for the following modifications:

Minimum Floor space (Square Feet) shall be 2,320-square feet of which 320-square feet shall be a 20' x 16' conference room. The conference room shall be equipped with two 3' x 6-1/2' tables and 30 chairs.

The "One (1) 600 DPI HP Laser Jet Printer (twelve (12) pages per minute or faster) with one (1) Extra Paper Tray (Legal Size)" specified in **Subsection 6.40.2.** shall be changed to "One (1) 600 DPI HP Color Laser Jet all-in-one Printer/Scanner/Copier/Fax (twelve (12) pages per minute or faster) with one (1) Extra Paper Tray (Legal Size) networked to all office computers."

6.40DC.3. MEASUREMENT. The quantity to be measured for payment under this item shall be the number of months that the Field Office is available for occupancy by the Field Engineers during the period of the contract. Payment will begin the first month that the office is fully equipped, serviced as specified, and made available for occupancy. Monthly payments will continue for the duration of the contract with the approval of the Assistant Commissioner of Construction. When directed in writing by the Assistant Commissioner of Construction, payment for each month's occupancy after the date of acceptance will be made as part of the final estimate. Monthly payments may be terminated on a specified date prior to acceptance of the contract by written notification by the Engineer that such office will no longer be required on the contract.

6.40DC.4. PRICE TO COVER. The unit price bid per month for Engineer's Field Office shall include the cost of furnishing all labor, materials, equipment, ground rental, fire and theft insurance, and utility charges necessary to complete the work of providing or constructing the field office; making all necessary electrical, water, sewer, and other connections required to make the above facilities operative; payment of all rental costs; furnishing and paying for heating fuel, as required; all electrical energy; private telephone services; staples, as specified; and all necessary incidentals to complete the work all in accordance with the specifications and the directions of the Engineer.

No payment will be made under Engineer's Field Office for each calendar day during which there are deficiencies in compliance with the requirements of any subsection of this specification. The first

calendar day shall commence twenty-four (24) hours after notice to the Contractor of such a deficiency. This non-payment shall be deducted from the Contractor's next estimate as a charge to Contractor on the item. The amount of such calendar day non-payment will be determined by dividing the unit price bid per month by 30.

In addition, the Contractor may be subject to liquidated damages in accordance with Schedule "A".

Payment will be made under:

| Item No. | Item Description | Pay Unit |
|----------|--|----------|
| 6.40 DC | ENGINEER'S FIELD OFFICE WITH CONFERENCE ROOM | MONTH |

- (2) **Refer** to Standard Highway Specifications Volume II (November 1, 2010), Page 549:
Add the following new section:

SECTION NYC-697.2000082 - Bridge Flag Repair

- (1) **Intent** This work shall consist of the repair of all flagged conditions (safety and structural) of the existing bridge and approach slab as deemed necessary by the Engineer during the life of the contract.
- (2) **Description** A flagged condition is defined to be a deficient condition in a bridge and approach slab identified during construction as requiring extra work to facilitate maintenance and protection of traffic, pedestrians and the construction crew.

Flagged repairs may include, but are not be limited to:

- a) shifted or collapsed sections of wall or slabs;
- b) City-owned utility repairs;

Such extra City work shall be paid for under this item in accordance with the requirements of Article 26 in the Standard Construction Contract dated December 2013.

Payment made under this Fixed Sum item shall cover the cost of all labor, materials, plant, equipment, insurance, and incidentals necessary to accelerate the City work as ordered by DDC's Assistant Commissioner of Construction.

No guarantee is given that this allowance item will in fact be required in this contract. The estimated "fixed sum" amount shown in the Bid Schedule is included in the total bid solely to insure a method of payment for any extra work performed by the Contractor, as directed by the Engineer.

Payment will be made under:

| Item No. | Item | Pay Unit |
|-----------------|--------------------|-----------|
| NYC-697.2000082 | BRIDGE FLAG REPAIR | FIXED SUM |

C. AMENDMENTS TO THE STANDARD SEWER AND WATER MAIN SPECIFICATIONS

- (1) **Refer** to **Subsection 10.15 - Notice To Utility Companies, Etc., To Remove Structures Occupying Place Of Sewers, Water Mains Or Appurtenances**, Page I-11:

Add the following to **Subsection 10.15**:

- (1) CONSOLIDATED EDISON COMPANY OF NEW YORK (CON EDISON)

There are CON EDISON facilities in the area of construction. The Contractor shall notify CON EDISON at least seventy-two (72) hours prior to the start of construction by contacting Mr. Alan Owens at (718) 802-3017.

- (2) NATIONAL GRID

There are NATIONAL GRID facilities in the area of construction. The Contractor shall notify NATIONAL GRID at least seventy-two (72) hours prior to the start of construction by contacting Mr. Neville Jacobs Jr. at (718) 963-5612.

- (3) VERIZON

There are VERIZON facilities in the area of construction. The Contractor shall notify VERIZON at least seventy-two (72) hours prior to the start of construction by contacting Mr. Matt Wozniak at (646) 300-7180.

- (4) CABLEVISION

There are CABLEVISION facilities in the area of construction. The Contractor shall notify CABLEVISION at least seventy-two (72) hours prior to the start of construction by contacting Mr. Andrew Matarazzo at (646) 300-7136.

- (2) **Refer** to **Subsection 10.21 - Contractor To Notify City Departments**, Page I-13:

Add the following to **Subsection 10.21**:

- (1) N.Y.C. D.E.P., BUREAU OF WATER AND SEWERS OPERATIONS

The Contractor shall notify Mr. James Garin, P.E., Director, Engineering at the Department of Environmental Protection, 59-17 Junction Blvd., 3rd floor low rise, Corona N.Y. 11368, at least thirty (30) days prior to the start of construction.

- (2) NEW YORK CITY FIRE DEPARTMENT

The Contractor shall notify the Bureau of Fire Communications at least thirty (30) days prior to the start of construction by contacting Mr. Ed Durkin at (718) 624-4194 or (718) 624-3752.

- (3) N.Y.C. DEPARTMENT OF TRANSPORTATION

The Contractor shall notify Mr. Steve Galgano, P.E. Chief of Signal/Street Lighting Operations, 34-02 Queens Blvd., Long Island City, N.Y. 11101 at (718) 786-3550, at least seventy-two (72) hours prior to the start of construction.

- (4) N.Y.C. DEPARTMENT OF PARKS AND RECREATION

The Contractor shall notify the Parks Department at least seventy-two (72) hours prior to the start of construction by contacting Mr. James Cruickshank at (718) 965-7739.

- (5) N.Y.C. TRANSIT AUTHORITY

- (a) The Contractor shall notify Outside Projects at least seven (7) days prior to the start of construction.

The Contractor shall contact:

Mr. Mohamed Adam, P.E.
 Project Engineer-Outside Projects
 New York City Transit
 2 Broadway, 7th Floor
 New York, N.Y. 10004
 Attention Ms. Alina Avadanei
 Telephone No. (646) 252-3641

- (b) The Contractor is advised that bus routes as well as bus stops, within the scope of this project may be affected during construction operations. The Contractor shall notify the Transit Authority at least two (2) weeks prior to the start of construction, in order to make the necessary arrangements as required under the NYC TRANSIT GENERAL NOTES included in **Section 10.25, paragraph (A), Section 10.25 paragraph (B), and Section 10.25 paragraph (C)** of this addendum.

Arrangements shall be made through:

Ms. Sarah Wyss
 Director Of Short Range, Bus Service Planning (SRB)
 New York City Transit
 2 Broadway, 17th Floor
 New York, N.Y. 10004
 Telephone No. (646) 252-5517
 sarah.wyss@nyct.com

- (c) In addition, the Contractor is advised that construction operations might affect subway lines and stations; and NYCT facilities (i.e. manholes, ducts, etc.). The Contractor shall notify the Transit Authority as required and specified in **Section 10.25 paragraph (A), Section 10.25 paragraph (B), and Section 10.25 paragraph (C)** of this addendum.

- (3) **Refer to Subsection 10.25 - Contractor To Carry Out Agreement Between City And Railroad Company Or Property Owner(s), Page I-14:**

Add the following to **Subsection 10.25:**

(A) NYC TRANSIT GENERAL NOTES

For NYC TRANSIT notes see the contract drawings.

(B) NYC TRANSIT INSURANCE REQUIREMENTS

N.Y.C. TRANSIT INSURANCE: The Contractor (Permittee) shall indemnify and save harmless the City of New York and the New York City Transit (Permitter) in accordance with the following "Insurance Requirements" and proof that the necessary insurance is in effect will be required before work can commence:

NYCT "OUTSIDE CONTRACT" INSURANCE REQUIREMENTS

- (1) The Permittee at its sole cost and expense shall carry or cause to be carried and shall maintain at all times during the period of performance under this Agreement policies of insurance as herein below set forth below:

- (A) Workers' Compensation Insurance - (including Employer's Liability Insurance) with limits as specified in Schedule "A", which limit may be met by a combination of primary and excess insurance meeting the statutory limits of New York State. The policy shall be endorsed to include Longshoreman's and Harbor Workers' Compensation Act/Maritime Coverage Endorsement and/or Jones Act Endorsement when applicable.
- (B) Commercial General Liability Insurance - (I.S.O. 2001 Form or equivalent) approved by Permitter in the Permittee's name with limits of liability as specified in Schedule "A" for each occurrence on a combined single limit basis for injuries to persons (including death) and damages to property. The limits may be provided in the form of a primary policy or combination of primary and umbrella/excess policy. When the minimum contract amounts can only be met when applying the umbrella/excess policy; the Umbrella/Excess Policy must follow form of the underlying policy and be extended to "drop down" to become primary in the event primary limits are reduced or aggregate limits are exhausted. Such insurance shall be primary and non-contributory to any other valid and collectable insurance and must be exhausted before implicating any Permitter/MTA policy available.

Such policy should be written on an occurrence form; and shall include:

- Contractual coverage for liability assumed by the Permittee under this agreement;
- Personal and Advertising Injury Coverage;
- Products-Completed. Operations;
- Independent Contractors Coverage;
- "XCU" coverage (Explosion, Collapse, and Underground Hazards) where necessary;
- Contractual Liability Exclusion, applicable to construction or demolition operations to be performed within 50 feet of railroad tracks, must be voided, where necessary; and,
- Additional Insured Endorsement (I.S.O. Form CG 20 26 07/04 version or equivalent) approved the Permitter naming:

New York City Transit Authority (NYCTA), the Manhattan and Bronx Surface Transit Operating Authority (MaBSTOA), the Staten Island Rapid Transit Operating Authority (SIRTOA), MTA Capital Construction Co., the Metropolitan Transportation Authority (MTA) including its subsidiaries and affiliates, and the City of New York (as Owner).

- (C) Business Automobile Liability Insurance Policy - (I.S.O. Form CA 00 01 10 01 or equivalent) approved by the Permitter is required if Permittee's vehicle enters Permitter property. The insurance must be in the name of the Permittee or its contractor entering the Permitter property with limits of liability in the amount specified in Schedule "A" for claims for bodily injuries (including death) to persons and for damage to property arising out of the ownership, maintenance or use of any owned, hired or non-owned motor vehicle.
- (D) Railroad Protective Liability Insurance policy shall be required as specified in Schedule "A".
- (E) Environmental/Pollution Exposures:

In the event environmental or pollution exposures exist, the Permittee shall require the environmental contractor or sub-contractor to provide the applicable insurance covering such exposure. The limits and type of insurance provided shall be satisfactory to the Permitter and will be confirmed to the parties prior to the start of the work.

- (2) General Requirements Applicable To Insurance Policies:

- (a) All of the insurance required by this Article shall be with Companies licensed or authorized to do business in the State of New York with an A.M. Best Company rating of not less than A-/VII or better and reasonably approved by the Permitior/MTA and shall deliver evidence of such policies.
- (b) Except for Workers Compensation, all references to forms and coverages referred to above shall be the most recent used by the Insurance Services Office, Inc. (ISO") or equivalent forms approved by the Insurance Department of the State of New York, provided, however, that excess coverages may be written on forms reasonably acceptable to Permitior containing provisions other than those contained in ISO forms but otherwise conforming in substance to the requirements of this Article.
- (c) The Permittee or its Contractor performing the work shall furnish evidence of all policies before any work is started to the permitior:

For NYCT Contract Inspection
C/O Mr. John Malvasio
Director, MOW Engineering
130 Livingston Street, Room 8044F
Brooklyn, NY 11201
Telephone: (718) 694-1358

These policies must: (i) be written in accordance with the requirements of the paragraphs above, as applicable; (ii) be endorsed in form acceptable to include a provision that the policy will not be canceled, materially changed, or not renewed, unless otherwise indicated herein, at least thirty (30) days prior written notice to the Permitior c/o MTA Risk and Insurance Management (MTA RIM) Department - Standards, Enforcement & Claims Unit, 2 Broadway - 21st floor, New York, NY 10004; and (iii) state or be endorsed to provide that the coverage afforded under the contractor's policies shall apply on a primary and not on an excess or contributing basis with any policies which may be available to the Permitior/MTA, and also that the contractor's policies, primary and excess, must be exhausted before implicating any Permitior/MTA policy available. (iv) In addition, contractor's policies shall state or be endorsed to provide that, if a subcontractor's policy contains any provision that may adversely affect whether contractor's policies are primary and must be exhausted before implicating any Permitior/MTA policy available, contractor's and subcontractor's policies shall nevertheless be primary and must be exhausted before implicating any Permitior/MTA policy available. Except for Professional Liability, policies written on claims made basis are not acceptable. At least two (2) weeks prior to the expiration of the policies, contractor shall endeavor to provide evidence of renewal or replacement policies of insurance, with terms and limits no less favorable than the expiring policies. Except as otherwise indicated in the detailed coverage paragraphs below, self insured retentions and policy deductibles shall not exceed \$100,000, unless such increased deductible or retention is approved by Permitior/MTA. The Permittee shall be responsible for all claim expense and loss payments within the deductible or self-insured retention. The insurance monetary limits required herein may be met through the combined use of the insured's primary and umbrella/excess policies.

- (d) Certificates of Insurance may be supplied as evidence of policies of the above policies, except for Policy (D) Railroad Protective Liability Insurance Policy. However, if requested by the Permitior, the Permittee shall deliver to the Authority, within forty-five (45) days of be request, a copy of such policies, certified by the insurance carrier as being true and complete. The Railroad Protective Liability Insurance Policy must be provided in the form of the Original Policy. A detailed Insurance Binder may be provided, ACORD or Manuscript Form, pending issuance of the Original Policy. The Original Policy must be submitted to MTA RIM within thirty (30) days of the Binder Approval.
- (e) If a Certificate of Insurance is submitted, it must: (1) be provided on the Permitior Certificate of Insurance Form or MTA Certificate of Insurance Form for Joint Agency Agreements; (2) be signed by an authorized representative of the insurance carrier or producer and notarized; (3)

disclose any deductible, self-insured retention, sub-limit, aggregate limit or any exclusions to the policy that materially change the coverage; (4) indicate the Additional Insureds and Named Insureds as required herein, along with a physical copy of the Additional Insured Endorsement (I.S.O. Form CG 20 26 07/04 version or equivalent), as applicable and the endorsement(s) must include policy number(s); (5) reference the Contract by number on the face of the certificate; and (6) expressly reference the inclusion of all required endorsements.

- (f) The minimum amounts of insurance required in the detail description of policies (A), (B), (C), and (D) above shall not be construed to limit the extent of the Permittee's liability under this Agreement.
- (g) If, at any time during the period of this Agreement, insurance as required is not in effect, or proof thereof is not provided to the Permitter, the Permitter shall have the options to: (i) direct the Permittee to suspend work or operation with no additional cost or extension of time due on account thereof; or (ii) treat such failure as an Event of Default.

(C) NYC TRANSIT CURRENT AND FUTURE PROJECTS

For NYC TRANSIT CURRENT AND FUTURE PROJECTS see the contract drawings.

- (4) **Refer to Subsection 10.30 - Contractor To Provide For Traffic**, Page I-15:
Add the following to **Subsection 10.30**:

- (1) Traffic Stipulations:

The Contractor shall refer to the Traffic Stipulations (six (6) pages) that are attached to the end of this addendum, and as directed by the Engineer.

- (5) **Refer to Subsection 40.02.15 - Disposal Of Water From Trenches**, Page IV-9:
Add the following to **Subsection 40.02.15**:

(A) The Department of Design and Construction has **not** filed application for Dewatering Permit with the New York State Department of Conservation (NYSDEC), under the Environmental Conservation Law (ECL), Title 15 of Article 15, for a Temporary Well Point System Permit. However, it is anticipated that the criteria for rate of pumping specified herebefore in this section will be exceeded in areas of construction; the Contractor shall be responsible for applying and obtaining the necessary dewatering permit prior to the dewatering of trenches within the scope of this project.

As part of the permit application the Contractor will be required to comply with all the requirements of **Section 40.14** of this addendum.

Copies of all materials submitted to NYSDEC shall be sent to the New York City Department of Design and Construction (NYCDDC), Infrastructure/Design.

The following minimum requirements set forth by the New York Department of Environmental Conservation shall be complied with prior to the start of work in areas of construction requiring dewatering permit:

- (1) An analysis must be made of water samples taken. The results are to be submitted to the Regional Permit Administrator. An analysis shall be made for BOD, salinity, oil, and grease. The samples shall be analyzed by a laboratory certified by the New York State Health Department and the results are to be submitted directed to the New York State Department of Environmental Conservation by the laboratory.
- (2) Prior to setting any wells, wellpoints or header pipes, the Contractor shall submit to the NYSDEC a layout of the complete dewatering system including the location of the

discharge point. When permitted by the NYSDEC, discharge of groundwater on the beach areas shall be done in such a manner as to eliminate any erosion or siltation and will require the installation of splash blocks and/or settling basins.

The Contractor is advised that all work required in obtaining a permit, must be submitted to, and approved by the NYSDEC prior to the commencement of any work in areas of construction requiring dewatering permit. No payment for any item of work will be made, and no shop drawing shall be approved for the areas of construction until such time that a written approval is obtained from the NYSDEC.

(B) The Contractor is advised that all work shall be governed by the provisions and requirements of the obtained permit, and their said provisions and requirements shall be made a part of the contract and the Contractor shall be responsible for strict adherence thereto.

The cost of all work required for applying, complying and obtaining required dewatering permits including the cost for any required updating of permits shall be deemed included in the prices bid for all item of this contract. No additional or separate payment will be made for any work required in order to comply with these requirements.

(6) **Refer** to Page IV-34:

Add the following new **Section 40.14**:

SECTION 40.14 DEWATERING PERMITS

40.14.1 DESCRIPTION

Under this contract, and at locations where groundwater will be present in the trenches and excavations, the Contractor is required to install, maintain and operate a temporary dewatering system of sufficient size and capacity to control ground and surface water flow into the excavation and to allow all work to be accomplished in the "dry condition".

The Contractor shall be required to obtain the following permits in order to operate a temporary dewatering system.

- (A) A Dewatering/Discharge Permit from the New York City Department of Environmental Protection (NYCDEP);
- (B) A Long Island Well Permit from the New York State Department of Environmental Conservation (NYSDEC), under the Environmental Conservation Law (ECL), Title 15 of Article 15, implemented by 6NYCRR Part 601 - Water Supply and Part 602 - Long Island Well. This permit is required only in the Boroughs of Brooklyn and Queens to withdraw water using a well point or deep well system where the total capacity of such well or wells is in excess of 45-gallons per minute (or 64,800-gallons per day); and,
- (C) An Industrial State Pollutant Discharge Elimination System (SPDES) or a Non-Jurisdictional Determination Letter in compliance with Title 8 and 7 of Article 17 of the Environmental Conservation Law of New York State, respectively.

The Contractor is advised that the provisions and requirements of the aforementioned permits shall govern all work, and the said provisions and requirements are hereby made a part of the sewer contract and the Contractor shall be responsible for strict adherence thereto.

No dewatering work shall commence until the above-mentioned Permits have been obtained for this project.

The Contractor is advised that in order to comply with all the permits requirements, the Contractor will be required to submit maps, test data, etc. prior to the start of work. In order to expedite the processing of the permit and its requirements, the Contractor shall be required to obtain the services of an independent Environmental Scientist as herein described below in **Subsection 40.14.2** to perform this work and act as liaison with NYSDEC and NYCDEP.

40.14.2 QUALIFICATIONS

The Environmental Scientist utilized to perform the work required under this section must have adequate experience in work of this nature (obtaining Long Island Well Permit/Dewatering Permit) and must have previous experience in working with the NYSDEC and the NYCDEP, designing equivalent dewatering systems, and have successfully obtained the type of permits required under this contract. Prior to the start of work, the Contractor will be required to submit the name and resume of the Environmental Scientist for approval.

40.14.3 NYSDEC DEWATERING PERMITS

The dewatering system shall be designed by the Environmental Scientist using accepted and professional methods of design and engineering consistent with the best modern practices.

The material to be submitted shall include, but not be limited to the following:

- (1) Site Plan - Scaled, showing construction activity (e.g. excavation, pathway of the pipe, new outfalls, etc.) locations of well points, header pipes and pumps, and all staging and storage areas.

Also included herein shall be a layout of the complete dewatering system including the location of the discharge point. When permitted by the NYSDEC, discharge of groundwater on beach areas shall be done in such a manner as to prevent any erosion or siltation and will require the design and installation of splash blocks and/or settling basins.

- (2) Dewatering System Specifications:

- | | |
|-------------------------------|-----------------------------|
| (a) Number of Well Points | (h) Total Volume Pumped |
| (b) Diameter of Well Points | (i) Number of Pumps |
| (c) Spacing of Well Points | (j) Capacity of Pumps |
| (d) Length to Screen | (k) Duration of Pumping |
| (e) Depth to Bottom of Screen | (l) Initial and Average GPM |
| (f) Static Water Level | (m) Estimated Daily Pumpage |
| (g) Drawdown Required | (n) Flow Meter |

- (3) Cross Section - Scaled, showing well points, riser, header, annular material (if used) and other equipment associated with each point. A typical construction style drawing may be utilized. Should the Contractor be permitted to use a deep well system, all information regarding it must be submitted.
- (4) Drawdown Contour Map - Based upon a review of the surrounding area affected by the dewatering and upon boring within the project area and characteristics of the soils, the depth and pumping rate of dewatering system and the duration of the pumping, the Environmental Scientist shall submit both a narrative and diagram showing the anticipated maximum cone of depression which shall be shown from both above and in cross section on scaled diagrams. Contour lines on diagrams shall be labeled to show depth from land surface.
- (5) Description of Site and Adjacent Areas - A short narrative shall be prepared describing the land use in the area paying attention to any potential sources of groundwater contamination that may migrate into the well's cone of depression, such as gas stations, chemical plants, wrecking yards, sanitary landfills, etc. Latest map of the area shall be included in the narrative.
- (6) Groundwater Analysis - The Environmental Scientist shall develop and submit a sampling and analysis program subject to NYSDEC Approval (a minimum of one groundwater sample from a site

well shall be collected and analyzed). A laboratory certified by the New York State Health Department shall analyze the samples. The sampling and analysis program must include but is not limited to the following:

NYSDEC REGION 2 - DEWATERING PROJECTS SAMPLING INFORMATION

| NO. | PARAMETERS | TYPE | EPA METHOD | DETECTION |
|-----|-----------------------------|------|---------------------|--------------|
| 1 | pH | Grab | 150.1 | EPA min |
| 2 | Temperature | °F | After Pumping | EPA min |
| 3 | Fecal Coliform | Grab | 5-Tubes/3-Dilutions | 2-MPN/100-ml |
| 4 | Oil & Grease | Grab | 413.1 | EPA min |
| 5 | BOD ₅ | Grab | 405.1 | EPA min |
| 6 | Total Suspended Solids | Grab | 160.2 | EPA min |
| 7 | Settleable Solids | Grab | 160.5 | EPA min |
| 8 | Chlorides | Grab | 325.1-325.3 | EPA min |
| 9 | Benzene | Grab | 602 | EPA min |
| 10 | Toluene | Grab | 602 | EPA min |
| 11 | Xylenes | Grab | 602 | EPA min |
| 12 | Ethylbenzene | Grab | 602 | EPA min |
| 13 | PCB's | Grab | 608 | (See Note 1) |
| 14 | Pesticides | Grab | 608 | EPA min |
| 15 | 13 Priority Metals | Grab | 200 series | EPA min |
| 16 | Acids Base/Neutrals | Grab | 625-GC/MS | EPA min |
| 17 | Halogenated Volatiles | Grab | 601-GC | EPA min |
| 18 | Nitrate/Nitrite | Grab | 300 or 353.3 | EPA min |
| 19 | Aromatic Volatiles | Grab | 602-GC | EPA min |
| 20 | Cyanide (total or amenable) | Grab | 335.1/335.2 | EPA min |

NOTE:

- (1) List each individual aroclor found and report the concentration of each aroclor tested. Use the N.Y.S. detection limit, which is 0.065-µg/l.

Small dewatering projects with a total estimated pumped volume up to 15-Million Gallons (MG) require sampling analysis for parameters No.'s 1 through 12.

Medium dewatering projects with a total estimated pumped volume between 15-MG and 60-MG require sampling analysis for parameters No.'s 1 through 14.

Large dewatering projects with a total estimated pumped volume greater than 60-MG require sampling analysis for parameters No.'s 1 through 20.

Samples are to be collected after development of the well by a licensed well driller.

A laboratory certified by the NYS Department of Health must conduct all testing.

Irrespective of the aforementioned sampling requirements based on total estimated pumped volumes, the Department may require sampling of additional parameters if the proposed dewatering site is suspected of being contaminated.

40.14.4 SUBMISSION OF DEWATERING PLAN

The Environmental Scientist will be required to submit two (2) copies of the Dewatering Plan (together with all reports, materials, designs, drawings, maps and plans) to the Infrastructure Engineering Support Unit for review and approval. Once approved the Environmental Scientist shall submit in triplicate the Final Dewatering Plan to both the NYSDEC and the NYCDEP. The Dewatering Plan should be bound and bear the name of the Contractor, NYSDEC Application Number and the Signature of the preparer. All drawings and maps shall be on sheets 27-inches by 40-inches and to scale not less than 1"=30'.

40.14.5 DAMAGES

The Contractor shall be responsible for and shall repair at no cost to the City any damage caused by inadequate or improper design and operation of the dewatering system, and any mechanical or electrical failure of the dewatering system.

40.14.6 SYSTEM REMOVAL

The Contractor shall remove all dewatering equipment and temporary electrical service from the site. All wells shall be removed or cut off a minimum of three (3) feet below the final ground surface and capped. Holes left from pulling wells or wells that are capped shall be grouted in a manner approved by the Engineer.

40.14.7 PAYMENTS

No additional or separate payment will be made for any work described herein. The costs for all labor, materials, equipment, permit fees, samples, tests, reports, services and insurance required or necessary to perform all the work described herein shall be deemed included in the price bid for all items of work.

- (7) Refer to Page IV-34:
Add the following new **Section 40.15**:

SECTION 40.15 OUTFALL AND TIDAL WETLANDS PERMITS

40.15.1 DESCRIPTION

Under this contract, at location(s) where outfall(s) are being constructed, and where work is being performed within area(s) of tidal wetlands, the Contractor shall be required to comply with the following permits while performing outfall work within navigable waters and/or work within tidal wetland areas.

- (A) A Protection Of Waters Permit from the New York State Department of Environmental Conservation (NYSDEC), under the Environmental Conservation Law (ECL), Title 5 of Article 15, implemented by 6NYCRR Part 608 - Protection Of Waters: (i) For The Excavation And Fill In Navigable Waters; and, (ii) Part 401 - Water Quality Certification; and,
- (B) A Tidal Wetlands Permit from the New York State Department of Environmental Conservation (NYSDEC), under the Environmental Conservation Law (ECL), Article 25, implemented by 6NYCRR Part 661 - Tidal Wetlands; and,
- (C) A Department Of The Army Permit from the U.S. Army Corps of Engineers, under Code of Federal Regulations, Title 7 - Outfall Structures – Aquatic Habitat Restoration and,
- (D) A Coastal Consistency Concurrence Certification from the New York State Department of State (NYSDOS).

To expedite the Permit process, the Department of Design and Construction has filed a joint application for (A), (B), (C), and (D) above. As the application is being processed it shall be the

Contractor's responsibility to comply with the requirements of the said permits. The Application ID number will be provided to the Contractor at the Preconstruction meeting.

The Contractor is advised that the provisions and requirements of the aforementioned permits shall govern all work, and the said provisions and requirements are hereby made a part of the sewer contract and the Contractor shall be responsible for strict adherence thereto.

No work shall commence until the above-mentioned Permits have been obtained for this project, and a copy of each permit transmitted to the Engineer.

The Contractor is advised that in order to comply with all the permits requirements, the Contractor will be required to submit maps, test data, etc. prior to the start of work. In order to expedite the processing of the permit and its requirements, the Contractor shall be required to obtain the services of an independent Wetland Specialist and, if required, an Environmental Scientist as herein described below in **Subsection 40.15.2** to perform this work and act as liaison with NYSDEC and NYCDEP.

40.15.2 QUALIFICATIONS

The Wetland Specialist and/or Environmental Scientist utilized to perform the work required under this section must have adequate experience in work of this nature (obtaining Protection Of Waters, Tidal Wetlands and Department Of The Army Permits) and must have previous experience in working with the NYSDEC and the NYCDEP and have successfully obtained the type of permits required under this contract. Prior to the start of work, the Contractor will be required to submit the name and resume of the Wetland Specialist and/or Environmental Scientist for approval.

40.15.3 NYSDEC PERMITS

The Wetland Specialist and/or Environmental Scientist shall prepare and submit all appropriate data and perform tasks as specified and required by the NYSDEC and/or Army Corps of Engineers.

The data to be prepared and submitted and the tasks to be performed shall include, but not be limited to the following:

- (1) The Wetland Specialist shall flag/stake the limits of the wetlands. These boundary locations are to be surveyed and plotted on a site plan whereon the adjacent areas shall then be drawn using the regulated wetland limit as a baseline. This site plan shall depict all existing conditions including descriptions of all vegetation.
- (2) An overlay of the site plan described above depicting the Contractor's proposed construction operations, including areas of equipment and material storage, and access roads.
- (3) Development of a sedimentation and erosion control plan including the location and specification for installing hay bales and siltation fencing between the construction right-of-way, staging areas, stockpiled materials and wetland adjacent areas.
- (4) Plans and specifications for the restoration/revegetation of all disturbed wetlands and regulated adjacent areas impacted by the Contractor's operations.
- (5) Upon completion of sewer, outfall and other related work on this project, the Contractor shall commence with the restoration/revegetation plan. All planting and revegetation shall be done under the supervision of the Wetland Specialist.
- (6) Should dewatering be required within the project area information regarding all dewatering activities must be submitted to and approved by NYSDEC in accordance with **Subsection 40.02.15**.
- (7) Wherever dewatering is extensive or of long duration and the cone of depression will extend to wetland areas the Wetlands Specialist shall develop and implement a program to monitor groundwater levels in the wetlands (e.g. install hand driven well points) and surface water levels in

water bodies. Prior to construction, the Wetlands Specialist shall gather information on any rare, endangered or threatened species and base-line data on existing vegetation and wildlife. Monitoring of these parameters shall continue throughout the construction to assure no adverse impacts to habitat within wetlands and water bodies from dewatering.

- (8) The Wetland Specialist shall also submit a plan for mitigation should the monitoring of wetlands reveal any adverse effects to vegetation, etc.

40.15.4 SUBMISSION OF REPORT

The Wetland Specialist and/or Environmental Scientist will be required to submit two (2) copies of a Report (together with all appropriate data, maps, site plans and surveys, mitigation plan, reports, materials, designs and drawings) to the Infrastructure Engineering Support Unit for review and approval. Once approved the Wetland Specialist and/or Environmental Scientist shall submit in triplicate this report to both the NYSDEC and the NYCDEP. The Report should be bound and bear the name of the Contractor, NYSDEC Application Number and the Signature of the preparer. All drawings and maps shall be on sheets 27-inches by 40-inches and to scale not less than 1"=30'.

40.15.5 DAMAGES

The Contractor shall be responsible for and shall repair at no cost to the City any damage caused to the outfall location(s) and tidal wetland areas by inadequate or improper designs and construction operations by the Contractor.

40.15.6 AREAS TO BE LEFT CLEAN

The Contractor shall remove all material and equipment from the outfall location(s) and area(s) of tidal wetlands after completion of work at the site(s). The locations and areas shall be left in a clean and neat condition in accordance with the requirements and directions of the Engineer, the NYSDEC and the Army Corps of Engineers.

40.15.7 PAYMENTS

No additional or separate payment will be made for any work described herein. The costs for all labor, materials, equipment, permit fees, samples, tests, reports, services and insurance required or necessary to perform all the work described herein shall be deemed included in the price bid for all items of work.

- (8) Refer to Page VI-54:
Add the following new **Section 61.24**:

SECTION 61.24 FURNISHING, DELIVERING AND INSTALLING JOINT STAINLESS STEEL BELLOWS TYPE EXPANSION JOINT

61.24.1 DESCRIPTION

This specification describes the furnishing, delivering and installation of flanged stainless steel self-equalizing, bellow type expansion joint as shown on the plans and/or as directed by the Engineer.

61.24.2 MATERIALS

Expansion Joint shall be of the stainless steel self-equalizing two-ply bellow type, with stainless steel limit rods, flanges and covers as manufactured by Badger Expansion Joint Co., P.O.Box 967, New castle, Pennsylvania 16103; ADSCO Manufacturing Co. Buffalo, N.Y.14212, Tel. No. (716) 827-5450; or approved equal. Expansion Joint shall be rated for internal operating water pressure of 150 psig and 300 psig test pressure. The design value of axial movement due to expansion or contraction shall

be 1.85-inch per 100 feet of length of pipe measured between fixed end points. Expansion Joint and limit rods shall be delivered and installed in mid-way position.

Expansion Joints are comprised of the following components:

- (A) Flanges shall be stainless steel, complying with the requirements of ASTM A182, Type A316, flat faced, 150 lbs. ANSI standard drilling for flanges 6 inches through 24 inches in diameter, and AWWA Standard Class E type for flanges 30 inches and larger in diameter. Bolt hole diameter shall be increased to accommodate installation of Mylar Sleeve as specified on the NYCDEP WATER MAIN STANDARD DRAWINGS, Standard Drawing No. 46104-W, latest revision.
- (B) Expansion Joint body and external cover shall be stainless steel complying with ASTM A240, Type 316. The body shall be three-eighths (3/8) of an inch thick and the cover shall be one-eighth (1/8) of an inch thick. The external cover shall provide protection for the bellows during shipment, installation and operation.
- (C) Two-Ply Bellows shall meet the requirements of the American Welding Society Standard Designation ASTM A240, Type 316 stainless steel and shall be 16 gauge inch thickness. The bellows shall be hydraulically formed, using internal pressure from a cylinder having only longitudinal seams. The weld in the cylinder shall be planished to refine the grain structure.

The bellows must be annealed or stress relieved. Before assembly annealed stainless steel units shall be pickled to remove all scales formed during annealing, and provide maximum corrosion resistance through passivation.

- (D) The internal sleeves, lugs and equalizing rings shall be type A316 stainless steel. Thickness of the internal sleeve shall be one-eighth (1/8) of an inch.
- (E) Overall Limit Rods of type A316 stainless steel shall be installed in accordance with the manufacturer's recommendation to restrict maximum elongation; contraction within the design limits. They shall be designed to act as external pressure; carrying members in case of anchor failure. All external steel parts shall be installed so that no axial movement will be allowed under static pressure. The length of the limit rod shall be twelve (12) inches longer than the length of the expansion joint measured from flange to flange at open position.
- (F) A Waterproof Sleeve of an approved rubber sheet blanket sealing the opening of the external cover shall be installed to protect the bellows.
- (G) The distance between the rubber blanket over the two-ply bellows and the back face of the flange shall be sufficient to provide a minimum one (1) inch clearance between the back face of the nut and bellows cover.
- (H) The flange joint between stainless steel expansion joint and steel or ductile cast iron pipe shall be insulated/isolated as described below:
 - (1) Bolts, nuts, and washers shall comply with the requirements of ASTM designation A320, grade B8.
 - (2) Gaskets shall be full face flange insulation gasket, one-eighth (1/8) inch thick cloth-reinforced SBR rubber, type 159, as manufactured by Garlock, Palmyra, N.Y. 14522, Tel. No. (800) 448-6688; Central Plastics Co., Shawnee, Oklahoma 74804, Tel. No. (800) 654-3872; Pipeline Seal & Insulator Inc., Houston, Texas 77041, Tel. No. (713) 747-6948 or approved equal.
 - (3) Sets of insulating sleeves and washers shall include the following items per bolt:
 - One full length mylar insulating sleeve, with a wall thickness of 1/32 inch;
 - Two insulating washers, phenolic, one-eighth (1/8) inch thick, with outside diameter 1/32 inch larger than that of the adjacent stainless steel washers;
 - Two stainless steel washers, annealed, Type 304, one-eighth (1/8) inch thick;

The insulating sleeves and washers shall be as manufactured by Central Plastics Co., Shawnee, Oklahoma 74804; Allstate Gasket & Packing Inc., Deer Park, New York, Tel. No. (631) 254-4050 or approved equal.

Coating and testing of insulated joints shall be done as specified in NYCDEP WATER MAIN STANDARD DRAWINGS Standard Drawing No. 46104-W, latest revision.

61.24.3 CONSTRUCTION METHODS

(A) INSTALLATION:

- (1) The expansion joint(s) and limit rods shall be delivered and installed in mid-way position. Installation of the water main shall be sequential, i.e. upstream (or downstream) pipe shall not be installed until the expansion joint (in mid-way position) is installed and jointed to the downstream (upstream) pipe. Temporary shipping devices holding the expansion joint in the mid-way position shall not be removed until the pipes at both ends of the expansion joint are in place and firmly jointed.
- (2) Expansion joints and the adjoining insulated flanged connections shall be installed in strict accordance with approved manufacturer's instructions and as approved by the Engineer.
- (3) During installation the two-ply bellows shall be protected against damage from welding operation in the area by a protective cover. Care must be taken to insure that stones, cinders or other foreign materials do not become lodged between the equalizing rings and corrugations of the self-equalizing expansion joint, as foreign material can impair the function of the unit and possibly cause severe damage.
- (4) Upon installation of the external cover of the expansion joint, a sleeve of an approved rubber sheet material sealing the open end of the cover shall be installed so as to prevent foreign matter from coming into contact with the bellows corrugations. This rubber sheet shall provide waterproof sealing.
- (5) Upon completion of installation but before testing, all nuts, bolts and connections shall be rechecked for tightness.
- (6) Shop drawings on the proposed expansion joint(s) shall be submitted through the Engineer to the NYCDEP BWSO (Bureau Of Water And Sewer Operations) for approval. The insulated connection between expansion joint flanges and mating flanges of the pipe shall also be shown on the same shop drawing.

(B) PERFORMANCE TEST

Prior to final acceptance, a performance test of the expansion joint shall be conducted as follows:

- (1) The joint shall be subjected to a hydrostatic pressure equal to two (2) times the operating pressure of 150 psig.
- (2) Welds shall be subjected to a radiographic examination. The radiography, the interpretation of the radiographs and the repair of defects shall be in accordance with rules of paragraphs UW-51 and UW-52, Section VIII of the American Welding Society's Standard Code for welding, latest revision. Radiographic examination and their interpretations shall be done at the expense of the Contractor by an approved laboratory or by the fabricator if his own facilities are approved for such a purpose. All interpretations of examinations shall be performed by approved personnel with ASNT Level III certification in radiography.
- (3) The expansion joint shall be rejected or any of the following conditions resulting from the qualification tests:
 - (a) Rupture of any part of the material of the sample, including that of welds;
 - (b) Obvious leakage;
 - (c) Weld discontinuities indicated by radiographic examination;
- (4) The Contractor shall provide certification from the suppliers of the expansion joint, stating that all the materials have met all requirements and the fabrications and tests have been satisfactorily performed in accordance with the above specifications.
- (5) The responsibility for inspection of materials and fabrication or manufacture rests with the Contractor. However, the Engineer reserves the right to inspect the manufacture or fabrication

of the expansion joint(s), like that of any other item, at any time during the work to assure that the materials and workmanship are in accordance with the specifications and with the best shop practices. Defects, errors or faults that are discovered during fabrication or installation shall be corrected by the Contractor at his own expense.

The costs for all testing shall be deemed included in the costs of furnishing, testing and installing the expansion joint(s)

61.24.4 MEASUREMENT

The quantity to be paid for under this item shall be the number of expansion joints furnished, delivered and installed in accordance with these specifications.

61.24.5 PRICE TO COVER

(A) The contract price for "FURNISHING, DELIVERING AND INSTALLING STAINLESS STEEL BELLOWS TYPE EXPANSION JOINT FOR (8 INCH THRU 30 INCH) PIPE" shall be the unit price bid per each size of Bellows Type Expansion Joint picked up, delivered and installed and shall cover the cost of all labor, equipment, materials, plant, samples, tests and insurance required and necessary to pick-up, deliver and install Bellows Type Expansion Joints (8 inch thru 30 inch) in the manner specified herein.

Payment for Furnishing And Delivering And Installing Bellows Type Expansion Joints (8-Inch Thru 30-Inch) will be made under the Item Number as calculated below:

The Item Numbers for Furnishing And Delivering And Installing Bellows Type Expansion Joints (8-Inch Thru 30-Inch) have ten characters. (The decimal point is considered a character, the third character.)

- (1) The first five characters shall define Furnishing And Delivering And Installing Bellows Type Expansion Joints (8-Inch Thru 30-Inch):

61.24

- (2) The sixth, seventh and eighth characters shall define Bellows Type Expansion Joint (8-Inch Thru 30-Inch):

BEJ – Bellows Type Expansion Joint (8-Inch Thru 30-Inch)

- (3) The ninth and tenth characters shall define the Size (Diameter) of the Bellows Type Expansion Joints. (The ninth and tenth characters representing the unit of inches for the Size (Diameter) of the Bellows Type Expansion Joints) See examples below:

08 - 8-Inch
20 - 20-Inch

- (4) The Item Numbers together with Description and Pay Unit as provided in the Bid Schedule are provided below:

| Item No. | Description | Pay Unit |
|------------|---|----------|
| 61.24BEJ08 | FURNISHING, DELIVERING AND INSTALLING STAINLESS STEEL BELLOWS TYPE EXPANSION JOINT FOR 8-INCH PIPE | EACH |
| 61.24BEJ12 | FURNISHING, DELIVERING AND INSTALLING STAINLESS STEEL BELLOWS TYPE EXPANSION JOINT FOR 12-INCH PIPE | EACH |
| 61.24BEJ20 | FURNISHING, DELIVERING AND INSTALLING STAINLESS STEEL BELLOWS TYPE EXPANSION JOINT FOR 20-INCH PIPE | EACH |
| 61.24BEJ30 | FURNISHING, DELIVERING AND INSTALLING STAINLESS STEEL BELLOWS TYPE EXPANSION JOINT FOR 30-INCH PIPE | EACH |

- (8) Refer to **Subsection 71.41.4 - Specific Pavement Restoration Provisions**, Page VII-67:
Add the following to **Subsection 71.41.4**:

(E) Specific Pavement Restoration Provisions:

- (1) In street areas requiring sewer and water main work, the restoration shall be as follows:
 - (a) The permanent restoration over the **trench width and cutbacks only** shall consist of a top course of one and one-half (1-1/2) inches of binder mixture on a base course of a minimum of four and one-half (4-1/2) inches of binder mixture, or a top course of a minimum of three (3) inches of binder mixture on a base course of a minimum of six (6) inches of high-early strength concrete, to match the existing pavement as directed by the Engineer.
 - (b) Finally an overlay of two (2) inches of asphaltic concrete wearing course shall be installed over the entire width of the roadway from **curb to curb** or **edge to edge** of existing roadway.
- (2) In streets requiring water main work only, the restoration shall be as follows:
 - (a) The permanent restoration over the **trench width and cutbacks only** shall consist of a top course of one and one-half (1-1/2) inches of asphaltic concrete wearing course on a base course of a minimum of four and one-half (4-1/2) inches of binder mixture, or a top course of one and one-half (1-1/2) inches of asphaltic concrete wearing course on a minimum of one and one-half (1-1/2) inches of binder mixture on a base course of a minimum of six (6) inches of high-early strength concrete, to match the existing pavement as directed by the Engineer.
- (3) The following requirements apply:
 - (a) Before the top course is installed, an additional width of asphalt beyond the edge of new base course shall be saw-cut and removed from all edges of trenches to a depth to accommodate the specified top course and the entire area restored. This additional removal shall be in accordance with paragraph (b) below.
 - (b) Pavement excavation along with saw cutting of pavements for sewer and water main trenches shall be in accordance with **Section 71.21 - Pavement Excavation** of the Standard Sewer And Water Main Specifications.
 - (c) At locations requiring the installation of a concrete base course, a reflective cracking membrane shall be installed over joints prior to restoration, the cost of which shall be deemed included in the prices bid for all pavement restoration items. Additionally, appropriate pavement keys as described below shall be used.
 - (d) Pavement keys **Type B-1** shall be used to insure a desired four (4) inch curb reveal (two and one-half (2-1/2) inch absolute minimum). Pavement key **Type A** shall be used in all intersections. Both keys are to be per Bureau of Highways Operations Specifications and Standard Details of Construction.
 - (e) Unless otherwise specified, the cost for Proctor analyses, in-place soil density tests, tack coating, eradication of temporary roadway markings, stripping or milling of pavement keys and adjustment of city-owned castings for all roadway work shall be deemed included in the prices bid for all pavement restoration items.
 - (f) Payment for placement of temporary pavement marking shall be made under Item No. 6.49 - TEMPORARY PAVEMENT MARKINGS (4" WIDE).

- (g) Payment for removal of existing pavement markings shall be made under Item No. 6.53 - REMOVE EXISTING LANE MARKINGS (4"WIDE).
- (h) Payment for placement of permanent pavement marking with thermoplastic reflectorized pavement markings (crosswalk and lane dividers) shall be made under Item No. 6.44 - THERMOPLASTIC REFLECTORIZED PAVEMENT MARKINGS (4" WIDE).
- (i) Payment for pavement restoration shall be made under the following items:

| <u>Item No.</u> | <u>Item</u> | <u>Payment Description</u> |
|-----------------|---|---|
| 4.02 AB-R | Asphaltic Concrete Wearing Course, 1-1/2" Thick | (For asphaltic concrete wearing course top course when <u>no</u> overlay is required.) |
| 4.02 AF-R | Asphaltic Concrete Wearing Course, 2" Thick | (For 2" asphaltic concrete wearing course overlay from curb to curb or edge to edge.) |
| 4.02 CA | Binder Mixture | (For binder mixture base course over trenches and cutbacks; binder mixture top filler course under asphaltic concrete wearing course when <u>no</u> overlay is required; binder mixture top course when overlay is required; binder mixture in Type A and B Keys; and binder mixture to fill in roadway depressions and to provide a leveling course prior to overlay where ordered.) |
| 4.04 H | Concrete Base For Pavement, Variable Thickness For Trench Restoration,(High-Early Strength) | (For concrete base course over trenches and cutbacks.) |

D. AMENDMENTS TO THE SPECIFICATIONS FOR TRUNK MAIN WORK

- 1) **Refer** to Part 1 – Furnishing And Delivering Steel Pipes And Appurtenances 30 Inches In Diameter And Larger, Paragraph 13. Special Fittings:, Page 5;
Add the following to Paragraph 13:

The steel reducer shall have a length of seven (7) feet for every twelve (12) inches reduction in diameter.

END OF ADDENDUM NO. 2

This Addendum consists of twenty-three (23) pages plus twenty-five (25) pages of attachments.

NO TEXT ON THIS PAGE



OCMC TRAFFIC STIPULATIONS

10.27.14

OCMC FILE NO: BNEC-14-386
CONTRACT NO: CONISPHO2B
PROJECT: CONSTRUCTION OF STORM, SANITARY SEWERS, DISTRIBUTION WATER MAIN, TRUNK MAIN AND APPURTENANCES PHASE 2B

LOCATION(S): NEPTUNE AVENUE, STILLWELL AVENUE, SURF AVENUE

PERMISSION IS HEREBY GRANTED TO THE **NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION** AND ITS DULY AUTHORIZED AGENT, TO ENTER UPON AND RESTRICT THE FLOW OF TRAFFIC AT THE ABOVE LOCATION(S) FOR THE PURPOSE OF CARRYING OUT THE ABOVE NOTED PROJECT, SUBJECT TO THE STIPULATIONS, AS NOTED BELOW:

A. SPECIAL STIPULATIONS

1. **EMBARGOES** – A CONSTRUCTION EMBARGO WILL APPLY TO THOSE LOCATIONS BELOW WHICH FALL WITHIN THE **HOLIDAY EMBARGO** OR ANY OTHER SPECIAL EVENT EMBARGOES SUCH AS THE **(OTHER EMBARGOES IF APPLICABLE)** AS PUBLISHED BY THE BUREAU OF PERMIT MANAGEMENT AND CONSTRUCTION CONTROL.
2. **BIKE LANES** – IF WORK IS IN OR AFFECTING A BIKE LANE, THE PERMITTEE MUST POST ADVANCE WARNING SIGNS 350 FEET AND 200 FEET PRIOR TO THE WORK ZONE STATING "**CONSTRUCTION IN BIKE LANE AHEAD PROCEED WITH CAUTION**", AND ALSO POST A SIGN AT THE WORK ZONE STATING "**CONSTRUCTION IN BIKE LANE PROCEED WITH CAUTION**". SUCH SIGNS SHALL BE ORANGE, 3' X 3', DIAMOND-SHAPED WITH 4" BLACK LETTERING. SIGNS SHALL BE POSTED IN ACCORDANCE WITH THE FEDERAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
3. **BIKE SHARE STATIONS:** THE PERMITTEE SHALL NOT REMOVE, RELOCATE, DAMAGE OR DISRUPT THE OPERATION OF EXISTING BIKE SHARE STATIONS WITHOUT FIRST CONTACTING NYC BIKE SHARE AT 855-245-3311 FOR THEIR REQUIREMENTS PRIOR TO COMMENCING WORK.
4. **BUS STOPS** – THE PERMITTEE SHALL PROVIDE WRITTEN NOTICE TO NYC DOT OCMC AND NEW YORK CITY TRANSIT (NYCT) A MINIMUM OF FIVE (5) WEEKS IN ADVANCE FOR LANE/STREET CLOSURES THAT AFFECT BUS ROUTES/BUS STOPS.
5. **STREET LIGHTS / TRAFFIC SIGNALS:** THE PERMITTEE SHALL NOT REMOVE OR RELOCATE EXISTING STREET LIGHTS OR TRAFFIC SIGNALS WITHOUT FIRST OBTAINING APPROVAL FROM NYCDOT STREET LIGHTING / TRAFFIC SIGNALS UNIT.
6. **METERS** – THE PERMITTEE SHALL NOT REMOVE OR RELOCATE PARKING METERS WITHOUT FIRST OBTAINING APPROVAL FROM NYCDOT PARKING METER DIVISION AT 718-894-8651.
7. **TEST PITS** – THE BELOW TRAFFIC STIPULATIONS DO NOT APPLY TO TEST PIT WORK RELATED TO THIS CONTRACT. WORK HOURS AND OTHER REQUIREMENTS FOR TEST PIT OPERATIONS MAY DIFFER FROM THE STIPULATIONS IDENTIFIED BELOW. THE PERMITTEE SHALL BE REQUIRED TO OBTAIN SEPARATE PERMITS RELATED TO TEST PITS.
8. **TEMPORARY PARKING REGULATIONS/PAVEMENT MARKINGS** – THE PERMITTEE IS REQUIRED TO INSTALL, MAINTAIN AND REMOVE ALL NECESSARY TEMPORARY PARKING AND REGULATORY SIGNS AND PAVEMENT MARKINGS, AND RESTORE THEIR ORIGINAL CONDITION PER NYC DOT STANDARDS, PRIOR TO EXPIRATION OF THEIR PERMITS. THE PERMITTEE OR AGENCY PERFORMING PUBLIC OUTREACH SHALL POST AND MAINTAIN ADVISORY SIGNS A MINIMUM OF 48 HOURS PRIOR TO CHANGING EXISTING PARKING REGULATION SIGNS TO APPROVED TEMPORARY CONSTRUCTION PARKING REGULATION SIGNS. THE ADVISORY SIGNS SHOULD BE POSTED ON ALL POLES AND DRIVE RAILS ON THE SEGMENT AFFECTED, INDICATING THE DATE OF THE CHANGE, THE NEW REGULATIONS AND A TELEPHONE NUMBER TO OBTAIN MORE INFORMATION.
9. **ACCESS TO ABUTTING PROPERTIES** – THE PERMITTEE SHALL COORDINATE ALL ACTIVITIES WITH ABUTTING PROPERTY OWNERS TO ENSURE ACCESS IS PROVIDED TO/FROM ENTRANCES/DRIVEWAYS AT ALL TIMES.
10. **AUTHORIZED PARKING** – PRIOR TO PERFORMING WORK WHICH IMPACTS AUTHORIZED PARKING, THE PERMITTEE SHALL SUBMIT IN WRITING, AND COPY OCMC-STREETS, A REQUEST TO OCCUPY SPACE CURRENTLY USED BY AUTHORIZED VEHICLES. APPROVAL MUST BE RECEIVED FROM AUTHORIZED PARKING PRIOR TO OCCUPYING THESE AREAS.
11. **NOTIFICATION** – THE PERMITTEE MUST AT LEAST TWO (2) WORKING DAYS BEFORE THE START OF CONSTRUCTION NOTIFY THE NYC FIRE DEPARTMENT, NYC POLICE DEPARTMENT, NYC EMS, LOCAL COMMUNITY BOARD, BOROUGH PRESIDENT'S OFFICE-CHIEF ENGINEER, NYCDOT OCMC OFFICE, AND ALL ABUTTING PROPERTY OWNERS.

NYC Department of Transportation
Bureau of Permit Management and Construction Control
30-30 Thomson Avenue – 2nd Floor South
Long Island City, NY 11101
T: 212.839.9621 F: 718.391.3631
www.nyc.gov/dot

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12. **CONSTRUCTION INFORMATIONAL SIGNS** – THIS PROJECT REQUIRES A CONSTRUCTION PROJECT INFORMATIONAL SIGN (CPIS) IN ACCORDANCE WITH NYCDOT HIGHWAY RULE SECTION 2-02 (4) AND (5). CRITERIA AND A PROTOTYPE FOR THIS SIGN MAY BE FOUND ON THE NYCDOT WEBSITE AT:

[HTTP://WWW.NYC.GOV/HTML/DOT/DOWNLOADS/PDF/DOT_CPIS_DIRECTIONS.PDF](http://www.nyc.gov/html/dot/downloads/pdf/dot_cpis_directions.pdf)

13. **ENHANCED MITIGATIONS**

- o **VARIABLE MESSAGE SIGNS (VMS)** SHALL BE PROVIDED FOR THIS PROJECT. THE LOCATIONS AND MESSAGES SHALL BE RECOMMENDED BY NYCDDC AND THEIR CONTRACTOR A MINIMUM OF TWO (2) WEEKS PRIOR TO WORK COMMENCING, FOR OCMC REVIEW AND APPROVAL.
- o **"NO STANDING ANYTIME-TEMPORARY CONSTRUCTION"** SIGNS AND TEMPORARY PAVEMENT MARKINGS SHALL BE INSTALLED AND MAINTAINED AS WARRANTED BY THE MAINTENANCE AND PROTECTION OF TRAFFIC (MPT) REQUIRED TO FACILITATE TRAFFIC MOVEMENTS THROUGH THE WORK ZONE. ALL TEMPORARY SIGNS AND PAVEMENT MARKINGS SHALL BE REMOVED UPON COMPLETION OF THE PROJECT.
- o **COMMUNITY OUTREACH** SHALL BE PROVIDED FOR THE DURATION OF THE PROJECT.

B. MAINTENANCE AND PROTECTION OF TRAFFIC

FOR ALL WORKS

NEPTUNE AVENUE BETWEEN WEST 15 STREET AND WEST 12 STREET
STILLWELL AVENUE BETWEEN CONEY ISLAND CREEK AND SURF AVENUE

1.

- Work hours shall be as follows: **9:00 AM to 4:00 PM**, Monday through Friday.
- The contractor shall maintain 3 lanes for traffic, during working hours.
- The contractor shall provide and maintain either a 5 foot clear sidewalk or 5 foot protected walkway in the roadway for pedestrian access at all time.
- Full width of roadway shall be opened to traffic when site is unattended.
- The contractor shall provide access to/from entrances to all property owners at all times.

2.

- Work hours shall be as follows: **9:00 PM to 5:00 AM**, Monday through Friday.
- The contractor shall maintain 2 lanes for traffic, 1 lane in each direction during working hours.
- The contractor shall provide and maintain either a 5 foot clear sidewalk or 5 foot protected walkway in the roadway for pedestrian access at all time.
- Full width of roadway shall be opened to traffic when site is unattended.
- The contractor shall provide access to/from entrances to all property owners at all times.

SURF AVENUE BETWEEN STILLWELL AVENUE AND WEST 12 STREET

- Work hours shall be as follows: **7:00 AM to 3:00 PM**, Monday through Friday.
- The contractor shall maintain 3 lanes for traffic, during working hours.
- The contractor shall provide and maintain either a 5 foot clear sidewalk or 5 foot protected walkway in the roadway for pedestrian access at all time.
- Full width of roadway shall be opened to traffic when site is unattended.
- The contractor shall provide access to/from entrances to all property owners at all times.
- The contractor cannot work on this location from May 15 to September 15 each year of the contract.

INTERSECTION OF STILLWELL AVENUE AND NEPTUNE AVENUE
INTERSECTION OF STILLWELL AVENUE AND MERMAID AVENUE
INTERSECTION OF STILLWELL AVENUE AND SURF AVENUE

- Work hours shall be as follows: **9:00 PM to 5:00 AM**, Monday through Friday.
- The contractor shall maintain 2 lanes for traffic, 1 lane in each direction on Neptune Avenue/Mermaid Avenue/Stillwell Avenue.
- Intersection shall be open for traffic after working hours.

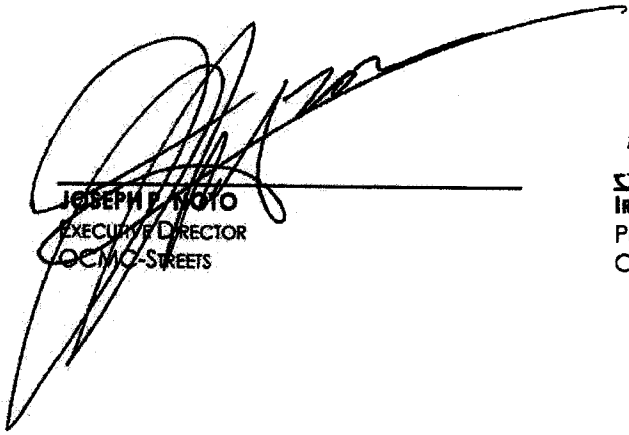
INTERSECTION OF WEST 12 STREET AND NEPTUNE AVENUE

- Work hours shall be as follows: 9:00 PM to 5:00 AM, Monday through Friday.
- The contractor shall maintain one 11 foot lane for traffic on West 12 Street and two 11 foot lanes for traffic on Neptune Avenue during working hours.
- Intersection shall be open for traffic after working hours.

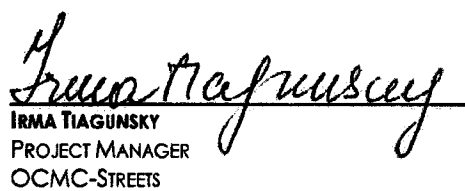
C. GENERAL NOTES

1. **THIS IS NOT A PERMIT.** THIS STIPULATION SHEET MUST BE SUBMITTED WITH ALL REQUESTS FOR PERMITS PERTAINING TO THE ABOVE CONTRACT AND PRESENT AT THE WORK SITE ALONG WITH ALL ACTIVE CONSTRUCTION PERMITS WHEN THE APPROVED WORK IS BEING PERFORMED.
2. THE CONTRACTOR MUST COMPLY WITH ALL CONSTRUCTION EMBARGOS ISSUED BY THE NYCDOT INCLUDING THE HOLIDAY EMBARGO.
3. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF THE NYCDOT SPECIAL EVENTS UNIT AS IDENTIFIED BELOW:
 - A. STREET FAIRS / FESTIVALS**
 - ALL EXCAVATIONS MUST BE PLATED WITH SKID RESISTANT PLATES.
 - PLATES MUST BE RECESSED AND FLUSH WITH PAVEMENT.
 - ALL PAVEMENT DEFECTS MUST BE CORRECTED WITHIN OR ADJACENT TO THE WORK ZONE.
 - THE CONTRACTOR IS RESPONSIBLE FOR ANY DEFECTS WITHIN THE IMMEDIATE VICINITY IF NYCDOT STREET & ARTERIAL MAINTENANCE CANNOT MAKE REPAIRS DUE TO PROJECT INTERFERENCE (AS DETERMINED BY NYCDOT).
 - ALL EQUIPMENT, TRAILERS AND MATERIAL STORAGE MUST BE REMOVED.
 - B. RUNNING / WALKING / BIKING EVENTS**
 - ALL EXCAVATIONS MUST BE BACKFILLED AND PAVED OR PLATES MUST BE RECESSED AND PAVED OVER FLUSH WITH PAVEMENT.
 - ALL PAVEMENT DEFECTS MUST BE CORRECTED WITHIN OR ADJACENT TO THE WORK ZONE.
 - THE CONTRACTOR IS RESPONSIBLE FOR ANY DEFECTS WITHIN THE IMMEDIATE VICINITY IF NYCDOT STREET & ARTERIAL MAINTENANCE CANNOT MAKE REPAIRS DUE TO PROJECT INTERFERENCE (AS DETERMINED BY NYCDOT).
 - ALL EQUIPMENT, TRAILERS AND MATERIAL STORAGE MUST BE REMOVED.
 - C. PARADES**
 - ALL EXCAVATIONS MUST BE BACKFILLED AND PAVED OR PLATES MUST BE RECESSED AND PAVED OVER FLUSH WITH PAVEMENT.
 - FORMATION AND DISPERSAL AREA PLATES MUST BE RECESSED AND FLUSH WITH PAVEMENT (PLATES MUST BE SKID RESISTANT).
 - ALL PAVEMENT DEFECTS MUST BE CORRECTED WITHIN OR ADJACENT TO THE WORK ZONE.
 - THE CONTRACTOR IS RESPONSIBLE FOR ANY DEFECTS WITHIN THE IMMEDIATE VICINITY IF NYCDOT STREET & ARTERIAL MAINTENANCE CANNOT MAKE REPAIRS DUE TO PROJECT INTERFERENCE (AS DETERMINED BY NYCDOT).
 - ALL EQUIPMENT, TRAILERS AND MATERIAL STORAGE MUST BE REMOVED.
 - D. MAYORAL EVENTS**
 - ALL EXCAVATIONS MUST BE BACKFILLED AND PAVED OR PLATES MUST BE RECESSED AND PAVED OVER FLUSH WITH PAVEMENT.
 - ALL PAVEMENT DEFECTS MUST BE CORRECTED WITHIN OR ADJACENT TO THE WORK ZONE.
 - THE CONTRACTOR IS RESPONSIBLE FOR ANY DEFECTS WITHIN THE IMMEDIATE VICINITY IF NYCDOT STREET & ARTERIAL MAINTENANCE CANNOT MAKE REPAIRS DUE TO PROJECT INTERFERENCE (AS DETERMINED BY NYCDOT).
 - ALL EQUIPMENT, TRAILERS AND MATERIAL STORAGE MUST BE REMOVED.
4. ALL RELOCATION WORK BY THE UTILITIES SUCH AS; CON EDISON, TELEPHONE, GAS AND CABLE COMPANIES SHALL PRECEDE THE CONTRACTORS' START OF WORK ON ALL AFFECTED ROADWAYS IN THE IMPACTED CONTRACT AREA.
5. THE CONTRACTOR IS ADVISED THAT OTHER CONTRACTORS MAY BE WORKING IN THE GENERAL AREA DURING THE TERM OF THIS STIPULATION. IN WHICH EVENT, THE CONTRACTOR MAY REQUIRE MODIFICATIONS BY THE OCMC-STREETS.
6. THE PERMITTEE IS NOT AUTHORIZED TO ENTER, OCCUPY OR USE ANY PUBLICLY-OWNED OR PRIVATELY OWNED, NON-PAVED, LANDSCAPE OR NON-LANDSCAPED LOCATION WITHOUT SPECIFIC WRITTEN PERMISSION. WHEN THE LOCATION IS WITHIN THE RIGHT-OF-WAY OF A LIMITED-ACCESS ARTERIAL HIGHWAY, **WRITTEN** APPROVAL FROM THE NYCDOT OCMC-HIGHWAYS IS REQUIRED. WHEN THE LOCATION IS WITHIN THE RIGHT-OF-WAY OF A PUBLIC STREET OR PUBLIC PARK, **WRITTEN** APPROVAL FROM THE NEW YORK CITY DEPARTMENT OF TRANSPORTATION OR NEW YORK CITY DEPARTMENT OF PARKS AND RECREATION IS REQUIRED. WHEN THE LOCATION IS WITHIN THE RIGHT-OF-WAY OF ANY OTHER JURISDICTION SUCH AS PRIVATE PROPERTY, STATE, FEDERAL ETC., IT IS THE PERMITTEE'S RESPONSIBILITY TO DETERMINE THE PROPERTY OWNER AND OBTAIN THE WRITTEN APPROVAL.
7. THE PERMITTEE SHALL ADHERE TO THE NYCDOT BUREAU OF BRIDGES' SPECIAL PROVISIONS FOR LANDSCAPE PROTECTION, MAINTENANCE AND RESTORATION, ITEMS 1.18.15 THROUGH 1.18.19, WHENEVER AND WHEREVER ANY OF THE PERMITTEE'S ACTIVITIES OCCUR WITHIN A LIMITED ACCESS ARTERIAL HIGHWAY RIGHT - OF - WAY.
8. NO DEVIATION OR DEPARTURE FROM THESE STIPULATIONS WILL BE PERMITTED WITHOUT THE PRIOR WRITTEN APPROVAL FROM THE OCMC-STREETS. REQUEST FOR SUCH MODIFICATIONS SHALL BE SUBMITTED TO THE OFFICE OF THE OCMC-STREETS, NEW YORK CITY DEPARTMENT OF TRANSPORTATION, A MINIMUM OF TWENTY (20) DAYS IN ADVANCE FOR CONSIDERATION.

9. FOR ANY CONSTRUCTION ACTIVITY RESULTING IN THE FULL CLOSURE OF A ROADWAY FOR MORE THAN 180 CONSECUTIVE CALENDAR DAYS, THE CONTRACTOR MUST PRODUCE AND SUBMIT A COMMUNITY REASSESSMENT, IMPACT AND AMELIORATION (CRIA) STATEMENT TO NYCDOT PLANNING AND OBTAIN THEIR APPROVAL BEFORE APPLYING FOR PERMITS, IN COMPLIANCE WITH THE PROVISIONS OF LOCAL LAW 24 STREET CLOSURE LAW.
10. FOR THIS PROJECT THE CONTRACTOR SHALL FURNISH, INSTALL AND MAINTAIN ALL NECESSARY ADVANCE WARNING AND DETOUR SIGNS, TEMPORARY CONTROL DEVICES, BARRICADES, LIGHTS AND FLASHING ARROW BOARDS IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES," THE TYPICAL SCHEMES INCLUDED IN THIS SPECIFICATION; AND AS ORDERED BY THE ENGINEER-IN-CHARGE AND THE OCMC-STREETS.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING HIS CONSTRUCTION SIGNAGE. THE IDENTIFICATION SHALL INCLUDE THE CONTRACTOR'S NAME, SPONSORING AGENCY NAME AND THE CONTRACT NUMBER. THE IDENTIFICATION SHALL BE PLACED ON THE BACK OF THE SIGN. THE LETTERING SHALL BE THREE (3) INCHES HIGH.
12. THE OCMC-STREETS RESERVES THE RIGHT TO VOID OR MODIFY THESE STIPULATIONS SHOULD CONSTRUCTION FAIL TO COMMENCE WITHIN TWO (2) YEARS OF THE SIGNED DATE OF THESE STIPULATIONS.



JOSEPH P. KOTO
EXECUTIVE DIRECTOR
OCMC-STREETS



IRMA TIAGUNSKY
PROJECT MANAGER
OCMC-STREETS



OCMC TRAFFIC STIPULATIONS - AMENDMENT # 1

March 9, 2015

OCMC FILE NO: BNEC-14-386
CONTRACT NO: CONISPH02B
PROJECT: CONSTRUCTION OF STORM, SANITARY SEWERS, DISTRIBUTION WATER MAIN, TRUNK MAIN AND APPURTENANCES – PHASE 2B

LOCATION(S): VARIOUS LOCATIONS

STIPULATIONS ORIGINALLY DATED **OCTOBER 27, 2014** GRANTING PERMISSION TO THE NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION AND ITS DULY AUTHORIZED AGENT, TO ENTER UPON AND RESTRICT THE FLOW OF TRAFFIC AT THE BELOW LOCATION(S) FOR THE PURPOSE OF CARRYING OUT THE ABOVE NOTED PROJECT, IS HEREBY AMENDED **TO INCLUDE ADDITIONAL LOCATIONS** AS FOLLOWS:

I. MAINTENANCE AND PROTECTION OF TRAFFIC

A. MERMAID AVENUE BETWEEN WEST 15TH STREET AND STILLWELL AVENUE

1. Work hours shall be as follows: 7:00 AM to 3:00 PM, Monday to Friday
2. The Permittee shall maintain two (2) lanes for traffic (one (1) lane for traffic in each direction) during working hours.
3. The Permittee shall provide and maintain either a 5-foot clear sidewalk or a 5-foot protected walkway in the roadway for pedestrian access at all times.
4. Full width of the roadway shall be opened to traffic when site is unattended.
5. The Permittee shall provide access to/from entrances/exits of all abutting properties at all times.

B. INTERSECTION OF MERMAID AVENUE AND WEST 15TH STREET

1. Work hours shall be as follows: 7:00 AM to 3:00 PM, Monday to Friday
2. The Permittee shall maintain two (2) lanes for traffic (one (1) lane for traffic in each direction) on Mermaid Avenue and one (1) lane for traffic on West 15th Street during working hours.
3. Intersection shall be opened to traffic after working hours.

C. WEST 12TH STREET BETWEEN NEPTUNE AVENUE AND SURF AVENUE

1. All work shall be coordinated with nearby P.S. 90 school prior to commencing work.
2. Work hours shall be as follows: 9:00 PM to 2:00 PM, Monday to Friday (When school is in session)
7:00 AM to 3:00 PM, Monday to Friday (When school is not in session)
3. The Permittee shall maintain two (2) lanes for traffic one (1) lane for traffic in each direction) during working hours.
4. The Permittee shall provide and maintain either a 5-foot clear sidewalk or a 5-foot protected walkway in the roadway for pedestrian access at all times.
5. Full width of the roadway shall be opened to traffic when site is unattended.
6. The Permittee shall provide access to/from entrances/exits of all abutting properties at all times.

II. GENERAL NOTES

- A. **THIS IS NOT A PERMIT.** THIS STIPULATION SHEET MUST BE SUBMITTED WITH ALL REQUESTS FOR PERMITS PERTAINING TO THE ABOVE CONTRACT AND PRESENT AT THE WORK SITE ALONG WITH ALL ACTIVE CONSTRUCTION PERMITS WHEN THE APPROVED WORK IS BEING PERFORMED.
- B. **ALL OTHER STIPULATIONS UNDER ORIGINAL NYCDOT STIPULATIONS SHEET BNEC-14-386 DATED OCTOBER 27, 2014 WHICH HAVE NOT BEEN CHANGED BY THIS AMENDMENT REMAIN IN EFFECT.**
- C. THE PERMITTEE IS ADVISED THAT OTHER CONTRACTORS MAY BE WORKING IN THE GENERAL AREA DURING THE TERM OF THIS STIPULATION. IN WHICH EVENT, THE CONTRACTOR MAY REQUIRE MODIFICATIONS BY THE OCMC-STREETS.
- D. NO DEVIATION OR DEPARTURE FROM THESE STIPULATIONS WILL BE PERMITTED WITHOUT THE PRIOR WRITTEN APPROVAL FROM THE OCMC-STREETS. REQUEST FOR SUCH MODIFICATIONS SHALL BE SUBMITTED TO THE OFFICE OF THE OCMC-STREETS, NEW YORK CITY DEPARTMENT OF TRANSPORTATION, A MINIMUM OF TWENTY (20) DAYS IN ADVANCE FOR CONSIDERATION.

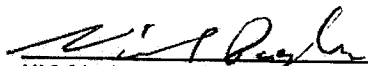
AMENDMENT #1

OCMC FILE NO: BNEC-14-386
CONTRACT NO: CONISPH02B
PROJECT: CONSTRUCTION OF STORM, SANITARY SEWERS, DISTRIBUTION WATER MAIN,
TRUNK MAIN AND APPURTENANCES - PHASE 2B

March 9, 2015
Page 2 of 2

II. GENERAL NOTES (CONTINUED)

- E. THE OCMC-STREETS RESERVES THE RIGHT TO VOID OR MODIFY THESE STIPULATIONS SHOULD CONSTRUCTION FAIL TO COMMENCE WITHIN TWO (2) YEARS OF THE SIGNED DATE OF THESE STIPULATIONS.
- F. THE PERMITEE MUST COMPLY WITH ALL CONSTRUCTION EMBARGOS ISSUED BY THE NYCDOT INCLUDING THE HOLIDAY EMBARGO.



NICOLAS DAGHER, P.E.
EXECUTIVE DIRECTOR
OCMC-STREETS



IRMA TIAGUNSKY
PROJECT MANAGER
OCMC-STREETS



**NYC DDC CONISPH2B
CP System Survey and Engineering
Study of Soils and Stray Currents
Cathodic Protection System Design**

Prepared For:

**NYC Department of Design and Construction
30-30 Thomson Ave
Long Island City, NY 11101**

Prepared By:

**CorrTech, Inc.
25 South Street
Hopkinton, MA 01748
CorrTech, Inc. Job No. 7953
NYC DDC Task Order 018**

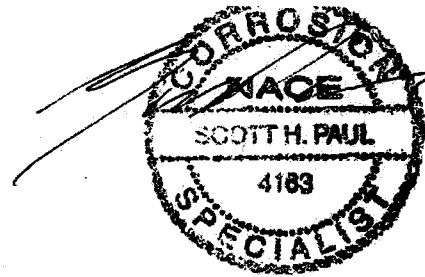
**February 2015
Revised: March 2015**

STATEMENT OF LIMITATION

The conclusions presented in this document are based on the services described and not on tasks or procedures beyond the scope of the described procedures or the time and budgetary constraints imposed by the contract limitations.

CorrTech, Inc. has performed this assessment in a professional manner using that degree of skill and care exercised for similar projects under similar conditions by reputable and competent consultants, and in accordance with the procedures established within CorrTech's quality assurance, quality control protocol.

CorrTech, Inc. shall not be responsible for conditions or consequences arising from relevant facts that were concealed, withheld or not fully disclosed at the time the evaluation were performed.



Report Reviewed by:
Scott Paul, P.E.
OHM Corrosion Specialist No. 4163
March 2015

A handwritten signature in black ink, appearing to be "Scott Paul", written over a horizontal line.

Report Written by:
James Davis
Civil Engineer
March 2015

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INTRODUCTION

On June 28th, 2011, CorrTech, Inc. entered into agreement with the NYC Department of Design and Construction with the expectation of providing cathodic protection design, construction support, field testing, final system testing and as-built documentation. The CONISPH2B project is located in Brooklyn, New York along Neptune Ave and Stillwell Ave. It is estimated that approximately 1,500 linear-ft of 36-in water main, 138 linear feet of 30-in water main and associated fittings are to be installed under this contract. These segments of pipe, isolated at all ends, will be protected by a cathodic protection system designed by CorrTech. Work is being completed under CorrTech, Inc. Job No. 7953 and issued under contract GEDRC001, registration number 20121401831.

Field testing was performed on November 10th, 2014 in order to obtain soil resistivity data and to perform stray current monitoring in the approximate areas in which the new steel water main is being installed. During this visit, testing was completed in specific areas associated with the route of the new piping system. Data collected will be used to design the sacrificial cathodic protection system. In addition to the field testing, a cursory review of area utilities was completed.

CorrTech, Inc. provides corrosion engineering expertise in accordance with specifications section 5.04A. Furnishing, installing and testing corrosion control and/or cathodic protection System was done in accordance with New York City Department of Environmental Protection (NYCDEP) "Specifications for Trunk Main Work".¹

CONCLUSION

Based on the field testing protocol and test results obtained during the system evaluation and energization, the following conclusions are presented:

1. The average soil resistivity measured along the construction route was found to be approximately 29,000 ohm-cm. Readings obtained ranged from 16,000 ohm-cm to 40,000 ohm-cm. The soil resistivity study indicates that the area soils are classified as progressively less corrosive to metallic structures. Steel piping installed in this area will require corrosion control measures that will include a bonded external dielectric coating system and sacrificial anode cathodic protection that will provide adequate corrosion control for in excess of 50 years.
2. Stray current effects measured along the construction route are considered insignificant. The magnitude of variations observed, clearly does not indicate the existence of dynamic stray DC voltage effects.

¹ This publication includes "Special Provisions for Trunk Main Work"; and "Specification for Furnishing, Delivering and Laying Steel Pipe and Appurtenances".

RECOMMENDATIONS

While the soils in the area are considered mildly corrosive, the minimum life expectancy of 50 years must be considered. The evaluation suggests that newly installed steel pipe should be installed with an external coating system, electrical isolation and sacrificial anode type cathodic protection system. The following are requirements:

1. Insulating flanges must be installed at all butterfly valve chambers and at any/all ductile iron or cast iron main connections. Flange isolation assemblies are required where the new steel pipe connects to existing piping as well.
2. The new steel piping must have a high quality dielectric coating, such as the Polyken YGIII coating system, for any and all steel pipe surfaces that are in contact with the surrounding soil environment. The dielectric coating system should be applied to all piping associated with the air cock hydrants and blow-off assemblies.
3. Sacrificial magnesium anodes, permanent reference electrodes, pipe test wires, steel counter electrodes and flush-to-grade test stations at the locations indicated on the design drawings must be installed. All test stations must be installed on the inside of nearby curbs in order to prevent the enclosures from being subject to vehicular traffic and to make them easier to locate for future testing.
4. FRP shields must be installed around the pipe at any/all points of contact with reinforced concrete piles or similar structures. Electrical isolation between the new steel piping and other structures is of critical importance.
5. Final testing shall be performed by CorrTech personnel in concert with the REI team. Testing must verify that the installed cathodic protection system meets the criteria set forth by NACE International Standard Practices SP0169, which requires control of external corrosion on underground or submerged metallic piping systems at all locations.

DISCUSSION

The coated steel water main piping associated with project CONISPH2B consists of 36-in steel water main. Testing was completed in and around the construction of trunk water main Coney Island Phase 2B.

The purpose of the pre-constructing testing and subsequent evaluation is to quantify the levels of stray traction DC currents and to evaluate the area soil resistivity along the proposed construction route. After testing, no significant stray current effects were located. Stray current testing was performed in and around the area where the new pipe will be installed.

A reference cell-to-reference cell potential profile obtained in the area indicates that potential variations are considered insignificant as well. The potential measurements obtained indicated variations of 0.008-volts or less. The proposed area of construction for the new steel water main

being installed as part of CONISPH2B will not be subjected to adverse effects from stray traction DC currents.

Soil resistivity measurements were obtained at five (5) locations using a Collins Rod and Whetstone Soil Bridge. Depths obtained ranged from 3-ft to 4-ft. The data obtained is shown in Appendix I of this report. Soil resistivity ranged from a low of 16K ohm-cm to a high of 40K ohm-cm. The mean soil resistivity is approximately 29K ohm-cm. This is a reasonable representation of the average soil resistivity in this area.

The measurement of soil resistivity has been used for years as an indicator of the corrosivity of soil. Soil resistivity is the reciprocal of conductivity; the lower the resistivity, the easier current flows through the soil. Of the measurable soil characteristics, resistivity is generally accepted as the primary indicator of soil corrosivity. Resistivity is a property of the bulk volume of soil and electrolytes.

Although no universal standard has been accepted, (by an organization such as the American Society for Testing and Materials or the National Association of Corrosion Engineers), it is generally agreed that the classification shown below, or other similar classifications, reflect soil corrosivity.

| <u>Resistivity (Ohm-Cm)</u> | <u>Classification</u> |
|-----------------------------|------------------------------|
| < 1,000 | Extremely Corrosive |
| 1,000 to 3,000 | Highly Corrosive |
| 3,000 to 5,000 | Corrosive |
| 5,000 to 10,000 | Moderately Corrosive |
| 10,000 to 25,000 | Mildly Corrosive |
| > 25,000 | Progressively Less Corrosive |

The above table provides qualitative insight to the expected corrosion exposure of a metallic structure in a soil of known resistivity. Accordingly, deterioration can generally be expected to be rapid and relatively severe in soils below 1,000 ohm-cm. This does not mean, however, that severe corrosion will not occur in soils of higher resistivity. In fact, depending on chemical conditions, severe corrosion can occur in soils above 25,000 ohm-cm. The table only indicates that the latter occurrence is generally not observed.

The review of the plans for the new steel water main indicates that there are multiple ties to existing structures. The installation of insulating flanges is required for any/all tie-ins to the existing water supply network, as well as any butterfly valve connections and at any/all ductile iron or cast iron distribution tie-in points. The installation of electrical isolation flange assemblies produces a more concise, manageable cathodic protection system.

The cathodic protection design created by CorrTech, Inc. assumes that the piping will be electrically isolated and provided with a high quality dielectric coating system, (such as the Polyken YGIII coating system) and installed on all steel piping in contact with the soil environment. The piping associated with air cock hydrants and blow-offs should be layered with

this coating system as well as electrically isolated from the steel trunk water main. There will be a total of 3 distinct segments associated with the CONISPH2B project installation relative to cathodic protection. Please refer to Appendix II for the associated Ground Bed Design Worksheets.

The following NYC DEP cathodic protection design criteria have been applied to facilitate the final design calculations:

- Percent of bare pipe 2.00%.
- Required current density 1.25 mA/Ft².
- Pipe coating quality 25,000 ohm-cm
- 50-year design life for the cathodic protection anodes
- Anode consumption rate of 17-pounds per ampere-year
- 50% anode consumption utilization factor

The magnesium anodes will be divided into groups and these groups will be distributed along the piping segments. Installing the anodes in individual groups enables better current distribution in each segment and will provide multiple ground beds as backup in the event of damage to one groundbed.

The cathodic protection design has been prepared in accordance with NACE SP0169. NACE Standard Practice SP0169 (formerly RP0169), "Control of External Corrosion on Underground or Submerged Metallic Piping Systems". This standard practice presents procedures and practices for achieving effective control of external corrosion on buried or submerged metallic piping systems.

These recommendations are also applicable to many other buried or submerged metallic structures. They are intended for use by corrosion control personnel concerned with the corrosion of buried or submerged piping systems, including oil, gas, water, and similar structures. This standard describes the use of electrically insulating coatings, electrical isolation, and cathodic protection as external corrosion control methods. The standard contains specific provisions for the application of cathodic protection to existing bare, existing coated and to new piping systems. Also included are procedures for control of interference currents on pipelines.

Sacrificial anode cathodic protection provides protection with no external power source or rectifier. Sacrificial anodes are designed to corrode, thereby protecting the steel structure being installed. Energy for the sacrificial anode system is provided by the difference in the electrochemical level between the anode and the structure being protected. Typically, magnesium anodes are utilized to protect steel structures. Referring to the galvanic series chart under the section on galvanic corrosion, it is indicated that the magnesium anode will corrode preferentially when connected to steel as part of a cathodic protection system. This is due to the fact that it sits at a higher electrochemical level.

A sacrificial anode installation is also a DC circuit with positive current supplied by the anodes and a return negative current supplied from the structure. The driving voltage of the sacrificial anode circuits is approximately 1.0 volt, the difference between magnesium and steel.

Ohm's Law ($E=IR$) is valid for DC circuits, where E is the driving voltage, or rectifier output, of the circuit, I is the resulting current magnitude and R is the resistance of the circuit. Proper system design seeks to minimize the resistance of the circuit through the use of an anode ground bed design. Sacrificial anode systems do not provide as much energy output as the impressed current design and therefore do not function properly in some applications where cathodic protection is required. Sacrificial systems require that the structure is first coated with a tightly adhered coating system and is also electrically isolated from all other metallic structures and system components. It is important to understand that pipe coating alone is not sufficient to provide complete corrosion control. Coatings must be supplemented with cathodic protection.²

NACE requirements specify that the cathodic protection of buried steel structures must be evidenced by two criteria. Firstly, adequate steel polarization is needed to ensure that the electrochemical processes have been established in order to arrest corrosion of the steel surface. Secondly, the cathodic protection design should be constructed and implemented in order to allow for field-testing protocol. Protection levels with respect to polarization criteria can then be verified. All testing is performed in order to demonstrate that adequate cathodic polarization exists on the protected structure. Polarization criteria must take into account any significant drop in the field measurements conducted. This is important both to satisfy the regulations as well as to ensure the preservation of pipe integrity. The primary focus of testing protocol and system design is to ensure that corrosion of any exposed steel has been mitigated.

Sacrificial anode design utilizes a number of electrical parameters as input to the CorrTech, Inc. design calculation worksheet. The calculation worksheets for each piping segment are included in this report as Appendix II.

The following NYC DEP cathodic protection design criteria was applied to facilitate the final design calculations:

- Percent of bare pipe 2.00%.
- Required current density 1.25 mA/Ft².
- Pipe coating quality 25,000 ohm-cm
- 50-year design life for the cathodic protection anodes
- Anode consumption rate of 17-pounds per ampere-year
- 50% anode consumption utilization factor

In addition to the soil resistivity data, pipe geometry and anode dimensions and weight, the above design criteria are inputs to the design. The anode-to-remote earth resistance calculation is based on Dwight's Equation for a single horizontal anode.

² However, as defined in Sections 4 and 5 of NACE SP0169, cathodic protection can be provided to uncoated structures under certain conditions.

$$R = \left(\frac{0.00521\rho}{L} \right) \left(\ln \left(\frac{4L^2 + 4L\sqrt{S^2 + L^2}}{dS} \right) + \frac{S}{L} - \frac{\sqrt{S^2 + L^2}}{L} - 1 \right)$$

Where

R = resistance in ohms

L = anode length in ft

S = twice the depth of anode in ft

d = anode diameter in ft

ρ = resistivity in ohm-cm

ln is the natural logarithm function

This calculation provides the resistance for one (1) anode set in the measured average soil resistivity. The resistance to ground of the pipe is also calculated in the worksheet. Both the theoretical current requirement based on 1.25 mA/Ft² applied to the 2.00% of bare steel pipe and the circuit resistance of the pipe and anodes are calculated in the worksheet. The number of anodes to be installed is a variable input in the worksheet that determines total anode circuit resistance based on parallel resistance theory. The check in the design calculation worksheet indicates that the comparison of theoretical current compared to the field-tested circuit resistance, (as determined by the number of anodes to be installed), is between 0 and 25% and is in agreement.

The final total anode current output value is used to calculate the life of the anode system based on the magnesium anode consumption rate and 50% utilization. The life expectancy of anodes on these cathodically protected piping segments is in excess of 100 years.

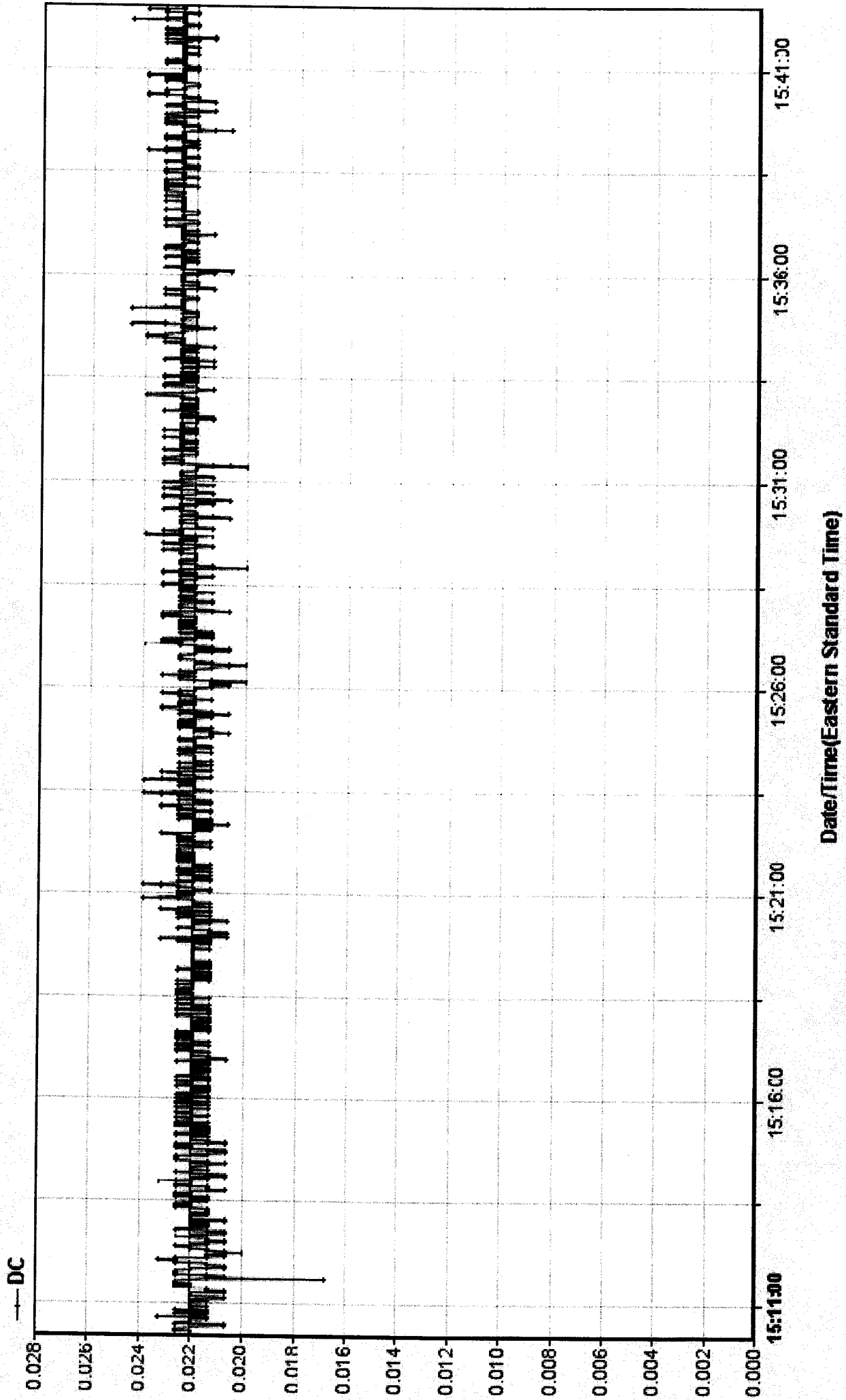
Appendix I

Soil Resistivity and Stray Current Test Results

Client: NY DDC - Task Order 018 Job Number: 7953
Project: CONISPH2B Date: 11/10/2014

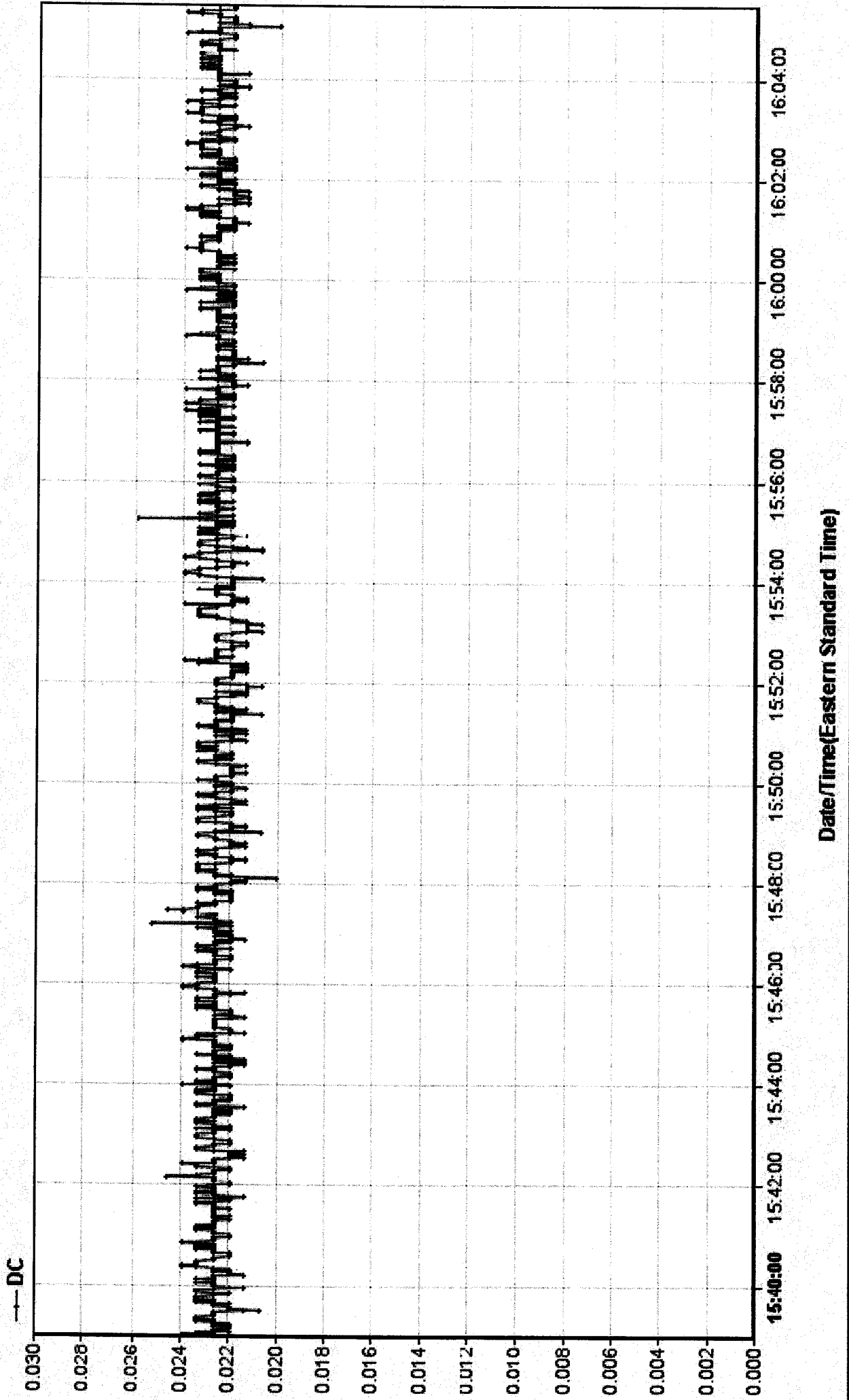
| Location | Resistivity (ohm-cm ²) | Description | Soil Type |
|-------------|------------------------------------|---|-----------|
| 1 | 32,000 | West 12th and Neptune Ave in Tree-bed | Soil |
| 2 | 35,000 | Neptune between Stillwell Ave and West 12th in Tree-bed | Soil |
| 3 | 40,000 | Stillwell Ave and Neptune Ave | Soil |
| 4 | 22,000 | On Stilwell Ave near Auto-Body Shop in Tree-bed | Soil |
| 5 | 16,000 | Stillwell Ave near bridge in Grass | Grass |
| <u>AVG.</u> | <u>29,000</u> | <u>(ohm-cm²)</u> | |

CONISPH02B - Task Order 018 - Stray Current Measurements - Graph 2



12

CONISPII02B - Task Order 018 - Stray Current Measurements - Graph 1



Appendix II

Cathodic Protection Design Worksheet, 3 Segment

Client: NY DDC -TASK ORDER 018
 Project: CONISPH2B

Job Number: 7953
 Date: 3/25/15

| Shaft No. | Drawing | Contract | Location | 48-inch Pipe Length (ft) | 30-inch Pipe Length (ft) | 36-inch Pipe Length (ft) | Gad beds | Anodes | Ref. Cells | Rebar |
|---------------|----------------|-----------|-------------------------------|--------------------------|--------------------------|--------------------------|----------|------------|------------|----------|
| SEGMENT 1 | CONISPH2B-CP-1 | CONISPH2B | STILLWELL AVE AND NEPTUNE AVE | 0 | 138 | 0 | 1 | 8 | 1 | 1 |
| SEGMENT 2 | CONISPH2B-CP-1 | CONISPH2B | STILLWELL AVE AND NEPTUNE AVE | 0 | 0 | 1,053 | 2 | 62 | 2 | 2 |
| SEGMENT 3 | CONISPH2B-CP-1 | CONISPH2B | STILLWELL AVE AND NEPTUNE AVE | 0 | 0 | 524 | 1 | 32 | 1 | 1 |
| TOTALS | | | | 0 | 138 | 1577 | 4 | 102 | 4 | 4 |

CorrTech Inc., Groundbed Design Worksheet
 NYC DDC Water Trunk Main Cathodic Protection

Client: NYC DDC Project: CONISPH2B
 Date: 2/19/15
 Description: STILLWELL AVE AND NEPTUNE AVE
 Segment: 1

| Structure Calculations | | ENTER | SURFACE AREA |
|------------------------|----|-------|--------------|
| Length of pipe | ft | 0 | 0 ft2 |
| Diameter | ft | 4 | |
| Length of Ppipe | ft | 138 | 1,083 ft2 |
| Diameter | ft | 2.5 | |
| | | | 1,083 ft2 |

| Circuit Calculations | | | |
|---------------------------------------|--|--------|----------------|
| Soil Resistivity (ohm-cm) | | 29,000 | |
| Coating Quality (% bare) | | 2.00% | |
| Pipe Surface requiring protection | | 21.67 | FT2 |
| Pipe electrically isolated (yes/no) | | yes | |
| Coating quality OHM-FT2 | | 25000 | |
| Pipe to Earth Resistance | | 23.08 | OHM |
| Theoretical Current Required (ma/ft2) | | 1.25 | |
| Theoretical Current Requirements | | 0.0271 | AMPS 0.0129996 |

Anode Parameters

| | | |
|---------------------------|------------------------------|---|
| Anode Type | Magnesium anode, prepackaged | Individual anode resistance |
| Anode Weight (lbs) | 17 | 20.11 square of S2+L2 factor |
| Anode Diameter (feet) | 0.31 | 72.38 resistivity x .0052 factor |
| Anode Length (feet) | 2.08 | 1.47 log value |
| 2 time anode depth (feet) | 20 | 168.77 Horizontal anode resistance |
| | | 215.13 Vertical anode resistance |

Circuit Resistance Current Requirements

| | plug in Resistance value | | |
|----------------------------------|--------------------------|-------|---------------------------|
| Anode Resistance to Earth | 168.77 | OHMS | |
| Driving Potential (v) | 1.2 | VOLTS | |
| Individual anode output | 0.007 | AMPS | Check |
| Number of anodes to be installed | 8 | | Between 0% and 25% |
| Total circuit resistance | 44.17 | OHMS | -0.31% Yes |
| Current output of system | 0.0272 | AMPS | |
| Consumption Rate (lb/A-yr) | 17.00 | | |

Anode life based on anodes to be installed 147.25 YEARS considers 50% anode efficiency

Design conforms to the following standards:
 National Association of Corrosion Engineers (NACE)
 Standard Recommended Practice SP 0169 latest revision



CorrTech Inc., Groundbed Design Worksheet
 NYC DDC Water Trunk Main Cathodic Protection

Client: NYC DDC Project: CONISPH2B
 Date: 2/19/15
 Description: STILLWELL AVE AND NEPTUNE AVE
 Segment: 2

| Structure Calculations | | ENTER | SURFACE AREA |
|------------------------|----|-------|-----------------------------|
| Length of pipe | ft | 0 | 0 ft ² |
| Diameter | ft | 4 | |
| Length of Ppipe | ft | 1,053 | 9,919 ft ² |
| Diameter | ft | 3 | |
| | | | <hr/> 9,919 ft ² |

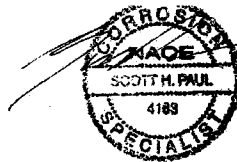
| Circuit Calculations | | | |
|--|--|--------|--------------|
| Soil Resistivity (ohm-cm) | | 29,000 | |
| Coating Quality (% bare) | | 2.00% | |
| Pipe Surface requiring protection | | 198.39 | FT2 |
| Pipe electrically isolated (yes/no) | | yes | |
| Coating quality OHM-FT2 | | 25000 | |
| Pipe to Earth Resistance | | 2.52 | OHM |
| Theoretical Current Required (ma/ft ²) | | 1.25 | |
| Theoretical Current Requirements | | 0.2480 | AMPS 0.11903 |

| Anode Parameters | | Individual a |
|---------------------------|------------------------------|--|
| Anode Type | Magnesium anode, prepackaged | 20.11 square of S2- 72.38 resistivity x . 1.47 log value |
| Anode Weight (lbs) | 17 | 168.77 Horizontal |
| Anode Diameter (feet) | 0.31 | |
| Anode Length (feet) | 2.08 | |
| 2 time anode depth (feet) | 20 | 215.13 Vertical ano |

| Circuit Resistance Current Requirements | plug in Resistance value | | |
|---|--|-------|------------------|
| Anode Resistance to Earth | 143.17 | OHMS | |
| Driving Potential (v) | 1.2 | VOLTS | |
| Individual anode output | 0.008 | AMPS | Check Between 0% |
| Number of anodes to be installed | 62 | | -0.20% Yes |
| Total circuit resistance | 4.83 | OHMS | |
| Current output of system | 0.2485 | AMPS | |
| Consumption Rate (lb/A-yr) | 17.00 | | |

Anode life based on anodes to be installed 124.76 YEARS considers 50% anode ef

Design conforms to the following standards:
 National Association of Corrosion Engineers (NACE)
 Standard Recommended Practice SP 0169 latest revision



CorrTech Inc., Groundbed Design Worksheet
 NYC DDC Water Trunk Main Cathodic Protection

Client: NYC DDC Project: CONISPH2B
 Date: 2/19/15
 Description: STILLWELL AVE AND NEPTUNE AVE
 Segment: 3

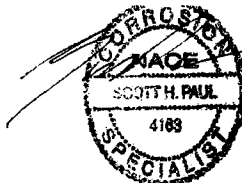
| Structure Calculations | | ENTER | SURFACE AREA |
|------------------------|----|-------|-----------------|
| Length of pipe | ft | 0 | 0 ft2 |
| Diameter | ft | 4 | |
| Length of Ppipe | ft | 524 | 4,936 ft2 |
| Diameter | ft | 3 | |
| | | | <hr/> 4,936 ft2 |

| Circuit Calculations | | | |
|---------------------------------------|--------|------|---------|
| Soil Resistivity (ohm-cm) | 29,000 | | |
| Coating Quality (% bare) | 2.00% | | |
| Pipe Surface requiring protection | 98.72 | FT2 | |
| Pipe electrically isoated (yes/no) | yes | | |
| Coating quality OHM-FT2 | 25000 | | |
| Pipe to Earth Resistance | 5.06 | OHM | |
| Theoretical Current Required (ma/ft2) | 1.25 | | |
| Theoretical Current Requirements | 0.1234 | AMPS | 0.05923 |

| Anode Parameters | | | Individual a |
|---------------------------|------------------------------|--|-----------------------|
| Anode Type | Magnesium anode, prepackaged | | 20.11 square of S2 |
| Anode Weight (lbs) | 17 | | 72.38 resistivity x . |
| Anode Diameter (feet) | 0.31 | | 1.47 log value |
| Anode Length (feet) | 2.08 | | 168.77 Horizontal |
| 2 time anode depth (feet) | 20 | | 215.13 Vertical ano |

| Circuit Resistance Current Requirements | | | |
|--|--------------------------|-------|-------------------------|
| | plug in Resistance value | | |
| Anode Resistance to Earth | 143.17 | OHMS | |
| Driving Potential (v) | 1.2 | VOLTS | |
| Individual anode output | 0.008 | AMPS | Check Between 0% |
| Number of anodes to be installed | 32 | | -1.94% Yes |
| Total circuit resistance | 9.54 | OHMS | |
| Current output of system | 0.1258 | AMPS | |
| Consumption Rate (lb/A-yr) | 17.00 | | |
| Anode life based on anodes to be installed | 127.18 | YEARS | considers 50% anode efi |

Design conforms to the following standards:
 National Association of Corrosion Engineers (NACE)
 Standard Recommended Practice SP 0169 latest revision



CorrTech Inc.

Client

Project

Contract

Prepared

Task Order 018

NY DDC

TRUNK MAIN Brooklyn, New York along Neptune Ave and Stillwell Ave

Coney Island Phase 2B CONISPH2B

2/25/15

Quantity and Cost Estimating

TOTAL-FURNISH AND INSTALL CATHODIC PROTEC.

| Item No | Description | Quantity | Measure |
|---------|---|----------|---------|
| 1 | 17-pound high potential magnesium anodes | 106 | each |
| 2 | Stuart Steel Type S Splice Kit | 53 | each |
| 3 | AWG 8 HMWPE header cable | 2,120 | feet |
| 4 | AWG 10 THWN, Red, White | 2,000 | feet |
| 5 | AWG 10 THWN, Red, Blue, Green, | 1,000 | feet |
| 6 | Thermite welds, CA-15 | 60 | each |
| 7 | Copper-copper sulfate reference cells w/50-ft HMWPE 12 yellow | 8 | each |
| 8 | Counter electrodes w/50-ft AWG 12 THWN Purple | 8 | each |
| 9 | Bumdy KS-17 Copper Split bolts (for anode splicing and test stati | 53 | each |
| 10 | 3M Supper 88- Black Electrical Tape (used with splice kit) | 8 | each |
| 11 | 3M 130 C Rubber Tape (used with splice kit) | 8 | each |
| 12 | Cans 3M scotchkote electrical coating FD (used with splice kit) | 2 | each |
| 13 | Royston Handi-Caps (cover thermite weld) | 60 | each |
| 14 | Test station housing (supplied by NYC DEP) | 12 | each |
| 15 | Acrylic Tags for Labeling Test Stations | 12 | sets |

1 of 1



ATTACH TO CONTRACT DOCUMENTS

**THE CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
INFRASTRUCTURE DIVISION
BUREAU OF DESIGN**

PROJECT ID: CONISPH2B

**FOR THE CONSTRUCTION OF STORM AND SANITARY SEWERS AND TRUNK WATER MAINS AND
APPURTENANCES IN CONEY ISLAND AREA PHASE 2B**

INCLUDING WATER MAIN WORK

Together With All Work Incidental Thereto

BOROUGH OF BROOKLYN

ADDENDUM NO. 3

DATED: April 15, 2015

This Addendum is issued for the purpose of amending the requirements of the Contract Documents and is hereby made part of said Contract Documents to the same extent as if it was originally included therein.

GAS COST SHARING (EP-7) STANDARD SPECIFICATIONS

**EP-7 GAS COST SHARING
STANDARD SPECIFICATIONS**

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I - NOTICE TO ALL BIDDERS; GAS COST SHARING WORK

All prospective bidders are hereby advised that, pursuant to the "Gas Facility Cost Allocation Act", ("the Act"), the City of New York has entered into an agreement ("the Agreement") with the gas companies (Con Edison or National Grid (formerly KeySpan Energy Delivery)) operating in their respective areas of the City to "share" the cost of facility relocation and/or support and protection of facilities disturbed by proposed water and/or sewer and related City work specified in this contract. Therefore, bid items, specifications and estimated quantities for the incremental costs of support and protection of certain gas facilities have been included in this contract. The low bid for this contract shall be determined by examining each bid for all work to be performed under this contract including any work of support and protection of gas facilities to be performed. The Contractor shall not seek additional compensation from gas companies except as specifically set forth in its contract.

II - GENERAL PROVISIONS; GAS COST SHARING WORK

1. General:

The Contractor shall perform City work with interferences from existing live and abandoned gas facilities. This shall be defined as utility work. Therefore, this contract includes bid items, specifications and estimated quantities designed to fully compensate him/her for the incremental costs of supporting, protecting, providing accommodations and, avoiding disturbing gas facilities located in the streets shown on the contract drawings. In the event that any other provisions of this contract related to gas facilities (or private utilities) conflict with these provisions, these provisions shall supersede and govern all work related to gas facilities owned by the companies operating in the project area. All utility work, as defined in these specifications, including changes and additions thereto shall be paid solely by the City except when specified otherwise in this contract. Contractor hereby agrees that the facility operator shall not be liable to pay him/her for any work performed including extra utility work. Contractor agrees that its bid prices include all compensation for loss of productivity and efficiency, idle time, delays (including any delays occasioned by negotiation of a contract change), change in operations, mobilization, demobilization, remobilization, added cost or expense, lost of profit, other damages or impact costs that may be suffered by or because of utility work, or the presence of gas facilities in the proximity of City work and that it will not seek additional compensation for these items. All disputes shall be resolved as specified in the contract.

Pursuant to the Act, Agreement, and the New York City Administrative Code, the gas company(ies) has been directed by the Commissioner and is required to perform all maintenance, repairs, replacement, shifting, alteration, relocation, and/or removal work that are not part of this contract. By having bid on this contract, the Contractor understands and agrees that the Commissioner has preasserted any right the City has to require, including the issuance of any directives or so called "order outs" under the New York City Administrative Code, any or all gas companies to maintain, repair, replace, protect, support, shift, alter, relocate, and/or remove all gas facilities that are about to be disturbed by the City contract work. The issuance of additional such directives during the performance of the contract work, where necessary in the sole judgment of the Commissioner, shall be initiated by such Commissioner as set forth in the relevant sections of the Act and Agreement. Contractor further agrees to insert such requirements as set forth herein above into any contracts with its approved subcontractors so that its subcontractors also understand and agree to such contract requirements.

2. Gas Interferences And Accommodations:

During the performance of sewer and water main work funded by the New York City Department of Environmental Protection (NYCDEP), as instructed by the Engineer, the use of any applicable contract bid item is allowed in order to resolve and accommodate all gas facilities interferences with such City work, including the removal of contaminated soil in associated trench excavation. This is in addition to the specified EP-7 bid items in the contract. Payment for such accommodation shall be funded by EP-7 bid item "UTL-GCS-2WS - GAS INTERFERENCES AND ACCOMMODATIONS" (F.S. Fixed Sum). The value of such accommodation shall be computed by multiplying the appropriate unit prices bid to the quantity of work performed, as determined by the Engineer, and applying the total amount thus to be paid

to EP-7 bid item "UTL-GCS-2WS - GAS INTERFERENCES AND ACCOMMODATIONS". When EP-7 bid item "UTL-GCS-2WS - GAS INTERFERENCES AND ACCOMMODATIONS" does not exist, such additional accommodation work shall be at no cost to the City but shall be a matter of adjustment between gas facility operator and Contractor. Private facilities, other than gas, that become in interference due to gas interferences accommodations shall also be accommodated, if so directed by the Resident Engineer, at no additional cost to the City and, provided that its owner agrees to be responsible for all additional costs to Contractor, otherwise, such facility shall be ordered by the City to be maintained, shifted, relocated or replaced by its owner at his/her expenses.

2a. Water Main Accommodations:

When water main construction is to be performed in this contract, Contractor shall be required, if warranted by field conditions, and at locations designated by the Resident or Borough Engineer, to change the vertical or horizontal alignment of water mains including but not limited to all additional labor, material, work method accommodations, furnishing, delivering and laying offset fittings and pipes, etc., necessary in order to complete water main installation and, avoid gas interferences in the project area, including street intersections. Typical work method accommodations shall include, but not be limited to, pier and plate, installation of filter fabric and select fill, etc. Such work shall be performed as directed by the Engineer and in accordance with contract specifications and latest edition of water mains standards and specifications.

2b. Sewer Accommodations:

When sewer construction is to be performed in this contract, Contractor shall be required, if warranted by field conditions, and at locations designated by the Resident or Borough Engineer, to change the horizontal alignment of sewer facilities (if possible) including but not limited to all additional labor, material, work method accommodations, furnishing, delivering and construction of additional manholes or modification of manholes/catch basins, extending chute connections, house connections, using alternate materials and methods, poured-in-place structures, etc., necessary in order to complete sewer installation and, avoid gas interferences in the project area, including street intersections. The term sewer facility shall include, but not be limited to, all sewer pipe and appurtenances, manholes, catch basins, catch basin chutes, etc. Such work shall be performed as directed by the Engineer and in accordance with contract specifications and latest edition of sewer standards and specifications.

3. Quantity Overruns, EP-7 Funded Bid Items:

No quantity overrun, in excess of one hundred twenty five (125) percent, shall be permitted for EP-7 funded bid items (gas) included in this contract, except when Resident Engineer determines that such overruns are caused by field modifications to planned City work, or approved construction methods, or contract scope changes. Overruns not paid by City shall be negotiated and paid to Contractor by gas facility operator who then shall be entitled to reimbursement by NYCDEP under established cost sharing procedures.

4. Changes And Extra Work:

This section is not applicable to work defined under "Emergency Reconstruction Contracts" or so-called "Where and When Contracts" since these projects, by definition, inherently encounter unanticipated gas facilities and cannot be pre-engineered. In all other cases, any contract changes proposed for City work shall also cover and include all associated changes to support and protection of gas facilities affected by such changes to City work. In all other cases where the Contractor finds that City work cannot be performed as planned and specified and/or, as approved because of a need to support, protect and/or alleviate interferences from gas facilities that were not listed and/or shown, or incorrectly shown in contract plans and specifications, he shall immediately notify the Resident Engineer and the facility operators' representative of his findings. Resident Engineer shall promptly examine such claims and determine whether or not such work is covered by contract bid items and /or specifications (contract bid items and specifications shall include city contract items as well as EP-7 items). The Resident Engineer shall also examine the claim to determine if the application of EP-7 bid item "UTL-GCS-2WS - GAS INTERFERENCES AND ACCOMMODATIONS" is appropriate to resolve the claim. If upon examination, the Engineer determines that such field conditions were unanticipated (not shown and/or listed, or incorrectly shown in contract documents) and are not covered by bid items and contract specifications, he shall then direct the Contractor and the affected facility operator to negotiate the cost of supporting and

protecting, and/or alleviating the impact on City work caused by such unanticipated gas facilities with each other with the understanding that the performance of City work shall continue during negotiations. If a cost agreement is reached, the Contractor and facility operator shall adjust such costs between themselves at no additional costs to the City contract. If the Contractor and affected facility operator do not reach an agreement concerning the price to be paid for the extra work within five (5) business days of the Engineer's directive to engage into such negotiations and, after considering: public safety and inconvenience, requirements of laws and regulations applicable to private utilities, integrity of all utility systems, including but not limited to sewer and water, gas, electric, telephone and, cable TV facilities, sound engineering practices, cost (long and short term) to all affected parties, and potential City work delays, then the Resident Engineer, depending on nature and severity of interferences with City work, shall either, direct the facility operator to relocate or replace its facilities at its own discretion and cost, reimbursable by NYCDEP under established gas cost sharing procedures or, direct the Contractor to perform the utility work on actual time, material and equipment costs pursuant to relevant contract requirements and amendments. Contract bid prices for any applicable items of work involved shall be applied, or converted to an allowance for time and material charges. Changes shall be for affected portions of utility work and, shall be processed with EP-7 funds.

5. Excavation:

All excavators shall notify the NYC/LI One Call Center at 1-800-272-4480 at least two (2) working days, not including the day of the call, but not more than ten (10) working days in advance of the start of any excavation work. The gas company(ies) will mark out its facilities within the project limits and provide Construction Inspector(s) during all excavation work in close proximity (within twelve (12) inches) to gas facilities. The Contractor shall exercise extreme caution when excavating in the vicinity of any gas facilities. Hand excavation shall be performed within twelve (12) inches of gas facilities. The Contractor prior to excavating underneath these facilities shall adequately support all gas facilities. Standard support details for gas facilities have been included in the specifications. Any damage to gas facilities shall be reported immediately to the gas company(ies). The Contractor shall be responsible for all cost associated with repairs made necessary by damages caused by his operations.

6. Backfilling And Street Restoration:

Backfilling operations and street restorations shall be in accordance with contract requirements.

7. Non-Responsive Bids:

Every gas (EP-7) bid item has a suggested "Not less than" value per unit indicated on contract bid sheet. Bids resulting in cost of less than suggested for EP-7 items are hereby prohibited and if submitted shall be considered NON-RESPONSIVE.

8. Minimum Clearances:

Clearance requirements for City work shall govern and supersede any clearance requirement of gas facility operator. Therefore, a minimum of twelve (12) inches clearance between private utilities and City water mains, sewers or related structures to be installed in this contract shall be maintained. When this clearance is not attainable, the Resident Engineer may allow a minimum of four (4) inches clearance. With less than twelve (12) inches clearance a neoprene/polyethylene shield (to be provided by facility operator) shall be installed as part of all work item specifications. However, if Resident Engineer determines that City work cannot be performed within allowable clearance and no reasonable City accommodation (no-cost change to City work) is possible, the City shall direct the facility operator to remove, relocate, shift, or alter their facility(ies) pursuant to the New York City Administrative Code.

9. Work By Facility Operator:

The facility operator may find it necessary to perform the following types of work during performance of City work: accommodating a contractor's request for gas facilities modifications (in order to facilitate City contractor's proposed construction method) or, remedial and emergency work on gas facilities proper with their own resources and materials if an approved method of construction for City work causes unanticipated disturbances to gas facilities or, replacing defective gas facilities when they are exposed by the Contractor and their actual conditions are observable by the facility operator. Also included in the above category of defective gas facilities are: the presence of environmental contaminants attributable to

the gas facility in or around gas facilities. If such work is deemed required by the facility operator or if facility operator is directed by the City to address such deficiencies at any time during the course of construction, the Contractor shall modify the construction schedule at no cost to the City and allow the facility operator five (5) business days to perform such work without interferences. Additional costs to the facility operator (in cases of accommodations) or, Contractor (in cases of defective gas facilities) due to such gas work, if any, shall be the responsibility of the parties involved and not of the City. Such costs shall be a matter of adjustment between the Contractor and the facility operator.

10. Materials Furnished By Facility Operator:

It shall be the Contractor's responsibility to inspect material to be installed by him immediately upon delivery and advise the facility operator through its authorized representative, of all damaged materials. The Contractor at no additional costs to the City or the facility operator shall replace any material that is damaged or lost after the Contractor's inspection.

11. Liability And Insurance:

Notwithstanding the provisions of this contract, the existing division of liabilities to third parties shall remain the same as between the City and the company. Therefore, it is specifically agreed by the City, company and Contractor (by bidding on this contract) that for the purpose of any liabilities to third parties, that the City contractor performing work directly and physically relating to gas company facilities in this project, shall be deemed an agent of the company and not an agent of the City, the New York City Municipal Water Finance Authority, or the New York City Water Board. Contractor shall include the company as an additional insured on all insurance policies maintained to comply with the City's insurance requirements.

12. Width And Depth Of Excavation:

Contractor shall not be authorized to deliberately change trench or excavation widths and/or depth specified without Engineer's approval. Enlargement of any side of excavation up to eighteen (18) inches beyond pay limits (or inside face of sheeting) requested by the Contractor for the installation of certain types of sheeting may be granted. However, such enlargements or those greater than allowable shall not be approved when, in the sole judgment of the City, field conditions allow the water mains and sewer work to be performed within the limits specified and, the sole purpose of such enlargement request is to impact adjacent utilities (public or private) whose support and protection are part of this contract. Any approval shall be given at no additional cost to the City contract, including EP-7 funding, and all costs associated with unauthorized enlargements shall be the sole responsibility of the Contractor.

13. Depth And Crossing Angles Of Gas Facilities:

Where gas facilities are shown (or specified as) crossing proposed alignment of sewers, water mains, catch basins and chute connections or any other proposed excavations at specific angles (as measured off plans or sketches or specified in contract), it shall be understood that actual field measurements may deviate (plus or minus) forty-five (45) degrees from those shown or specified. The cover, or depth from street surface to top of facilities, shall be as shown or specified in contract documents, no deviation is to be assumed. Where gas facilities are not shown on contract documents, but their support and protection are otherwise included in this contract then, all references to facilities crossing at "various angles and depth" in the gas sections shall mean that such facilities are crossing sewer, water, catch basin and, catch basin chute, and other excavations at a ninety (90) degree angle to the proposed sheeting line or side of excavation (for unsheeted trenches) with an allowable deviation of forty-five (45) degrees in any direction, except for catch basin chute excavation where the allowable deviation shall be sixty (60) degrees. Where the cover is not noted or specified, the bottom face of such facilities shall be assumed to be crossing catch basin chutes at a depth of three (3) foot eight (8) inches or less from the street surface. Paragraph No. 2 above shall apply in cases of distribution water main construction. Appropriate bid items and specifications are provided for cases where angle and depth are greater than stated above. This section also applies to work defined in "Emergency Reconstruction Contracts" or so-called "Where and When Contracts". These contracts are not pre-engineered and consequently have no drawings, sketches or determined locations and so, gas facilities encountered will be crossing existing and proposed sewer, water, catch basin/catch basin chutes and all appurtenances at various angles and depths.

14. Maintenance Of Traffic For Gas Work:

All work pertaining to gas bid items and specifications shall be performed within the contract maintenance of traffic plan as specified in the contract document. The bid price for the Maintenance and Protection of Traffic shall cover all work pertaining to gas items. The City shall make compensation for additional maintenance and protection of traffic items in connection with gas item of work only when such additional work is deemed reasonable and necessary by the Resident Engineer and is approved by him prior to its performance.

15. Relocated Gas And Temporary Systems Installation:

In cases where the Contractor is allowed to select the location for temporary construction such as, installation of dewatering headers, wells, well points, etc., he shall not disturb any gas facilities shown on sketches provided in this section. The only exception shall be, if the affected gas company agrees to such relocation and provided that the cost of such relocation is a matter of adjustment between the company and Contractor, and at no cost to the City.

16. Role Of Company Inspector:

In any case in which the City elects to perform some or all support and protection work with its own employees, personnel or contractors, the facility operator shall provide onsite inspectors to approve and certify such support and protection work (exclusive of City accommodations) performed by the City's own employees, personnel, and contractors. Facility operator's inspectors are not authorized to direct City contractor during the performance of contract work. They shall act through the City Resident Engineer and provide him/her required approvals and certifications, prior to preparing partial payments of EP-7 items, in a format and frequency to be prescribed by the appropriate City Head of Construction.

17. Coordination With Gas Company:

The Contractor shall be required to notify the gas company(ies), in writing, at least two (2) weeks prior to the start of final paving in order to allow companies to complete any unfinished gas work located within the area to be paved. Every effort shall be made to maintain gas service with minimum inconvenience to the public.

III - TECHNICAL SECTION

SECTION 6.01 - Trench Crossings; Support And Protection Of Gas Facilities And Services.

1. Description:

Under this section, the Contractor shall provide all labor, materials, equipment, and incidentals required to support and/or protect the integrity of gas mains, services and appurtenances of any sizes, configurations, and operating pressures crossing trench excavations above subgrade for planned construction of sewers and water mains facilities. A gas service shall be defined as a gas pipe of three (3) inches in diameter or less branching from the main to a customer pick up point or property valve box. A gas main may be any size pipe that is part of a distribution or transmission network other than services described above. Crossings shall be defined as gas facilities spanning the width of excavation (one side to the other side). These crossings may be at various angles and depth as shown on "Gas Cost Sharing Work Standard Sketches Nos. 1 and 1A", and as specified in "General Provisions; Gas Cost Sharing Work Paragraph No. 13" and, at the locations shown or listed in contract documents. The gas company operating in the area, (facility operator), owns these facilities. The work shall be performed in accordance with contract specifications, plans, and at the directions of the Resident Engineer in consultation with the authorized representatives of the facility operator.

2. Method Of Construction:

- A. Protection: In general, the gas facilities shall be protected as required by New York State Industrial Code 753. In particular, the Contractor shall use hand excavation methods (pick and shovel or hand held power tools) directly below the pavement base to expose the gas facilities (marked out by facility operators) and to ascertain the clearances and cover of the facilities with respect to the proposed excavation. Upon exposing the affected facilities sufficiently, at the discretion of the Resident Engineer, to ascertain the foregoing, Contractor shall be permitted to proceed with a combination of hand and machine excavation, as appropriate, outside a zone of protection whose limit shall be defined as a perimeter located twelve (12) inches from the outside face of each gas facility crossings (See "Gas Cost Sharing Work Standard Sketch No. 2"). If the facilities are in direct interference with City work, meaning that "Minimum Clearances" described in "General Provisions; Gas Cost Sharing Work Paragraph No. 8" cannot be maintained, and excavation has to be temporarily or permanently abandoned then this particular location shall become a test pit and dealt with as specified in Section 6.07, and "General Provisions; Gas Cost Sharing Work Paragraphs Nos. 2 and 8".
- B. Support: Gas mains or services crossing excavations equal or less than four (4) feet wide are generally self supporting, unless field conditions as determined by the Resident Engineer require otherwise. The support requirements for gas mains and services crossing excavations greater than four (4) feet wide shall be as shown on the attached "Gas Cost Sharing Work Standard Sketch No. 1" and Contractor shall use sheeting methods that permit the maintenance of gas facilities in their existing locations and configurations. Alternate methods equivalent to those shown on the sketch or accommodations by the facility operator proposed by the Contractor in order to facilitate the execution of the specified work shall be allowable, provided that prior approval is obtained by the Contractor from the Engineer and the facility operator. The support and protection of gas facilities crossings shown on plans, drawings, listings or otherwise identified in this contract shall not be circumvented with the issuance of so called "order outs".

3. Method Of Measurement:

The Contractor shall be paid for supporting and/or protecting gas facilities crossing trench excavations under the appropriate bid items covered by this section. The Contractor shall be directly responsible to the facility operator for the total cost of using any alternate method requiring the use of resources owned by the facility operator. Regardless of the method used, the City shall pay the bid price for the appropriate support and/or protect item of work. The average rate charged by the facility operator for alternate support and protection work such as, disconnecting and reconnecting gas services is listed in attached "Schedule GCS-A".

4. Payment Restrictions:

These items shall not be paid for: gas services crossing unsheeted water main trench excavation; abandoned gas main/services identified by facility operator; gas mains/services crossing trench excavations for fire hydrant branch connections pipes, catch basins and/or chutes (sewer drain pipe), house sewer and/or water services; gas facilities encroaching any face of excavation for sewer and/or water construction, all of which are covered under other contract sections. Also this item shall not be paid for new gas mains and services crossing water trenches when trenching for such new facilities has been performed by the Contractor in common with trench excavation for City work (overlapping trench limits). The cost of supporting and protecting such gas facilities crossings shall be deemed included in the cost of trench excavation for the new gas facilities. This payment restriction shall apply even if such common trench gas excavation is not part of the contract. The prices bid for items covered by this section represent full compensation to Contractor to completely perform the work described. No other bid items shall be combined with these items in order to pay for gas main and/or services crossing excavations specified herein.

5. Method Of Payment:

Each (Ea.) gas facility crossing trench excavation as described in these specifications shall be counted for payment.

6. Price To Cover:

The cost of timber/steel supports installed for gas facilities shall be included in the bid price. The bid price for each crossing shall also cover all additional supervision, labor, material (except those provided by the facility operator), equipment and insurance necessary to completely maintain the gas facilities without disruption of service to the customers and in accordance with contract plans, specifications and facility operator standards. The price shall also include: changes of method of operations; sheeting modifications where necessary to accommodate the gas facilities crossings; installation and removal of water pipe under gas facilities (so called "snaking"); extra care during excavation (including hand excavation under existing single and multiple gas facilities); extra backfilling and compaction around, over and under gas facilities; installation and removal of sheeting around gas facilities; associated maintenance and protection of traffic; barricades; and traffic plates that may be required to temporarily close and/or complete the work.

SECTION 6.02 - Extra Excavation For The Installation Of Catch Basin Sewer Drain Pipes With Gas Interferences.

1. Description:

Under this item, the Contractor shall provide all labor, materials, equipment, insurance, and incidentals for the extra excavation associated with the installation of catch basin sewer drain pipes (chute) under gas facilities of various sizes crossing the trench excavation at various angles and depth at the locations shown in the contract documents and also, for the support and protection of these facilities during associated excavation and backfill operations. The gas company operating in the area, (facility operator), owns these facilities.

2. Method Of Measurement:

The bid price shall be per location (Each) where extra excavation is required when catch basin sewer drain pipes are installed at an upstream invert depth lower than four (4) feet (up to a maximum of six (6) feet) from the proposed pavement grade because the bottom faces of interfering gas mains and appurtenances are located at a depth greater than three (3) foot eight (8) inches from proposed pavement surface (See "Gas Cost Sharing Work Standard Sketch No. 4").

3. Method Of Construction:

Incremental cost responsibility for chute excavation is determined by the first private facility encountered starting from catch basin structure proper and that prevents the installation of the chute connection at an upstream cover less than or equal to three (3) feet or any other minimum cover required to avoid City facilities (e.g. water, sewer, etc.) as directed by the Resident Engineer.

4. Payment Restrictions:

This item shall not apply and related bid item shall not be paid in cases where:

- A. Upstream invert chute is more than six (6) feet deep because of gas facilities.
- B. Chute cannot be installed above existing gas facilities because of interferences with other private facilities that are not otherwise covered under this contract, regardless of upstream invert depth.

The above cases shall be at no cost to the City, but shall be a matter of adjustment between the Contractor and the facility operator(s).

5. Price To Cover:

The bid price shall cover the additional cost of all additional supervision, labor, materials, equipment and insurance, to complete the installation of catch basins and associated sewer connections in accordance with the contract plans and specifications. The price shall include: excavation by hand around and under single and multiple gas facilities; locating, supporting and protecting gas facilities; backfilling and all other items necessary to perform all work incidental thereto including: installation and removal of drain pipe under gas facilities ("snaking"); widening of trenches to facilitate the above work; subsequent additional

backfill and pavement restoration; modifying precast catch basin window to accommodate connection; changing sheeting method and configuration to accommodate gas facility crossings; maintenance and protection of traffic; barricades; and installation of traffic plates that may be required to temporarily close and/or complete the work. The price shall not include removal of ledge rock and/or excavation of boulders in open cut.

SECTION 6.02.1 - Extra Excavation For The Installation Of Catch Basin Sewer Drain Pipes With Upstream Inverts Greater Than Six (6) Feet.

1. Description:

Under this item, the Contractor shall provide all labor, materials, equipment, insurance and incidentals for the extra excavation of catch basin chutes where the upstream invert is greater than six (6) feet under gas facilities of various sizes crossing the trench excavation at various angles and depth at the locations shown in the contract documents or as determined by field conditions and also, for the support and protection of these facilities during the associated excavation, sheeting and backfilling operations.

2. Method Of Measurement:

The bid price shall be per location (Each) where extra excavation and sheeting is required when the catch basin chute installed at an upstream invert depth lower than six (6) feet from the proposed pavement grade because the bottom faces of the interfering gas mains and appurtenances are located at a greater depth than three foot eight inches from the proposed pavement surface only.

3. Method Of Construction:

Incremental cost responsibility for chute excavation is determined by the first private facility encountered during such excavation when initiated from catch basin structure and that prevents the installation of the chute at an upstream cover less than or equal to three (3) feet or any other cover required to avoid City facilities as directed by the Resident Engineer.

4. Payment Restriction:

This item shall not apply and related bid item shall not be paid in cases where:

Upstream invert chute is less than or equal to six (6) feet deep because of gas facilities. Section 6.02 shall be paid.

5. Price To Cover:

The bid price shall cover the additional cost of all supervision, labor, materials, equipment and insurance to complete the installation of catch basin and associated sewer connections in accordance with the contract plans and specifications. The price shall include: excavation by hand around and under single and multiple gas facilities; locating, supporting and protecting gas facilities incidental thereto; widening of trenches to facilitate the above work; subsequent additional backfilling and pavement restoration; modifying pre-cast basin window to accommodate connection; the installation of catch basin with deeper sumps as specified; additional sheeting and changes in sheeting method and configuration to accommodate gas facility crossings; maintenance and protection of traffic; barricades; and installation of traffic plates that may be required to temporarily close and/or complete the work.

SECTION 6.03 - Removal Of Abandoned Gas Facilities. All Sizes.

1. Description:

Under this section the Contractor shall provide all labor, materials, equipment, insurance and incidentals required for the removal of abandoned gas mains, services, or appurtenances thereof, located within the street shown on the contract plans, owned by gas company operating in the project area (facility operator), used or to be used for or in connection with or to facilitate the conveying, transportation, distribution or

furnishing of gas (natural or manufactured or mixture of both) for light, heat, or power, but does not include property used solely for or in connection with business of selling, distributing or furnishing of gas in enclosed containers. Such removal shall include only abandoned gas facilities that interfere with (i.e. cause additional work) City work.

2. Determination Of Operating Status Of Gas Facilities:

The Contractor shall notify facility operator, as required by New York State Industrial Code 753. Gas facilities shall not be removed without the approval of the facility operator whose authorized representative shall certify in writing (specific facility or area wide facilities certification) and in a timely manner acceptable to the Resident Engineer that abandoned facilities are free of combustible gas and any other environmental contaminants prior to removal. The Resident Engineer shall rely on facility operator's certification. The facility operator may request the excavation of test pits (See Section 6.07) for this determination ahead of City work and, Contractor shall provide safe access, facilitate and permit facility operator to enter test pit excavations for the purpose of testing gas facilities to be removed by the Contractor. However, facility operator may prefer to make this test during performance of City work, in order to issue the above certification. This shall be permitted provided that it is agreed that additional costs, if any resulting from this choice shall be a matter of adjustment between the Contractor and facility operator only, and at no cost to the City.

3. Restrictions:

The facility operator shall be solely responsible for its contaminated gas facilities, surrounding contaminated soil and their disposal and abatement procedures, unless contract bid items are applicable and provided for such work. In such cases, the quantity removed shall be charged to EP-7 bid item "UTL-GCS-2WS - GAS INTERFERENCES AND ACCOMMODATIONS" at the City bid prices.

4. Method Of Measurement:

Abandoned gas pipeline removal shall be measured for payment per linear foot of pipe and appurtenances removed.

5. Price To Cover:

The price shall cover all additional cost of supervision, labor, materials, equipment, and insurance necessary to complete this work in accordance with the contract plans and specifications, including excavation by hand around and under other City and facility operator owned properties and, where necessary, support and protection of such properties. The price shall also cover breaking, cutting, and/or burning of abandoned gas pipes and their disposal from the site; sealing open ends remaining in the excavation with concrete or caps (caps to be provided by the facility operator) and backfilling of the area where the pipeline has been removed with clean backfill. The price shall also include any required dump charges. This item does not include any type of extra excavation, backfilling, compaction, pavement removal and restoration associated with abandoned gas facilities removal, all of which are covered under Section 6.06.

**SECTION 6.03.1 - Removal Of Abandoned Gas Facilities With Possible Coal Tar Wrap.
All Sizes. (For National Grid Work Only)**

1. Description:

Under this section the Contractor shall provide all labor, materials, equipment, insurance and, incidentals required for the removal of abandoned gas mains, services or appurtenances thereof, located within the street shown on the contract plans, owned by the gas company operating in the project area (facility operator), used or to be used for or in connection with or to facilitate the conveying, transportation, distribution or furnishing of gas (natural or manufactured or mixture of both) for light, heat, or power, but does not include property used solely for or in connection with business of selling, distributing or furnishing of gas in enclosed containers. Such removal shall include only abandoned gas facilities that interfere with (i.e. cause additional work) City work. These gas facilities may be coated with Coal Tar Wrap and so, may require special handling and disposal methods as specified in National Grid Standard Operating Procedure 12-2, Coal Tar Wrap Handling and 12NYCRR56.

2. Determination Of Operating Status Of Gas Facilities:

The Contractor shall notify facility operator, as required by New York State Industrial Code 753. Gas facilities shall not be removed without the approval of the facility operator whose authorized representative shall certify in writing (specific facility or area wide facilities certification) and in a timely manner acceptable to the Resident Engineer that abandoned facilities are free of combustible gas and any other environmental contaminants prior to removal. The Resident Engineer shall rely on the facility operator's certification. The facility operator may request the excavation of test pits (See Section 6.07) for this determination ahead of City work and, the Contractor shall provide safe access, facilitate and permit facility operator to enter test pit excavations for the purpose of testing gas facilities to be removed by the Contractor. However, the facility operator may prefer to make this test during performance of City work, in order to issue the above certification. This shall be permitted provided that it is agreed that additional costs, if any, resulting from this choice shall be a matter of adjustment between the Contractor and the facility operator only, and at no cost to the City contract. Should such investigation result in the determination that the abandoned gas facilities do not contain Coal Tar Wrap then the removal of said facilities shall be covered under separate item (See Section 6.03).

3. Requirements:

The City Contractor shall excavate abandoned gas facility sufficiently, either in its entirety, or at locations determined by Contractor to allow the removal of Coal Tar Wrap (if present on the abandoned gas facility) and to facilitate the safe extraction of manageable lengths of abandoned pipe without damage to adjacent facilities, utilities or City structures either parallel to or crossing above or below abandoned gas facility. The Contractor is to allow access to the designated cutting points within the Contractor's trench by authorized National Grid personnel who will remove the Coal Tar Wrap as per National Grid procedures. This work by National Grid personnel shall be performed in a timely fashion and shall not unduly impede the Contractor's progress and/or productivity. Upon completion of the coating removal, the Contractor shall be allowed to cut, burn or grind the gas facility and remove the section of abandoned pipe. The Contractor at a site designated by the Contractor shall stockpile the removed pipe. The facility operator will be responsible to provide trucking and disposal services with its own personnel and shall remove the stockpiled pipes during off hours or during such time as agreed to by the Contractor. Since the pipe removed will remain the property of the facility operator and is to be disposed of by the facility operator, the facility operator shall be responsible for any required notifications, filings, dump charges and incidentals associated with the disposal of abandoned gas facilities found to contain Coal Tar Wrap.

4. Method Of Measurement:

Abandoned gas pipeline removal shall be measured for payment per linear foot of pipe and appurtenances removed.

5. Price To Cover:

The price shall cover all additional cost of supervision, labor, materials, equipment and insurance necessary to complete this work in accordance with the contract plans and specifications, including excavation by hand around and under other City and facility operator owned properties and, where necessary, the support and protection of such properties. The cost shall also include hand excavation in the area(s) of proposed abandoned pipe cut(s), cutting and/or burning of abandoned gas pipes and stockpile of removed sections of abandoned pipe and associated maintenance and protection of traffic, blocking and temporary fencing if required. The unit price shall also cover sealing open ends remaining in the excavation with concrete or end caps (end caps to be provided by the facility operator) and backfilling of the area where the abandoned pipeline has been removed with clean backfill material. This item does not include any type of extra excavation, backfilling, compaction, pavement removal and/or restoration (temporary and permanent) associated with abandoned pipe removal ("lost trench"), all of which are covered under separate Section 6.06. The price shall also include allowance for any loss of productivity by the Contractor due to required facility operator work to remove pipe coating and prepare pipe for cutting as well as any change in Contractor's excavation method, additional trucking and/or stockpiling costs.

SECTION 6.03.1a - Removal Of Abandoned Gas Facilities With Possible Coal Tar Wrap. All Sizes. (For Con Edison Work Only)

1. Description:

Under this section the Contractor shall provide all labor, material, equipment, insurance and, incidentals required to prepare abandoned gas mains, services and appurtenances thereof located within the street shown on contract plans, owned by the gas company operating in the project area (facility operator), for removal due to interference with proposed City work. These abandoned gas facilities were, at one time, used for or in connection with or to facilitate the conveying, transportation, distribution or furnishing of gas (natural, manufactured or a combination of both) for light, heat, or power, but does not include property used solely for or in connection with business of selling, distribution or furnishing of gas in enclosed containers. Such preparation for removal shall include only abandoned gas facilities that interfere with (i.e. cause additional work) City work. These gas facilities may be coated with Coal Tar Wrap which may contain asbestos or PCB's and so, may require special handling and disposal methods as specified in Con Edison - ASBESTOS MANAGEMENT MANUAL, CHAPTER 6 - ASBESTOS WORK PROCEDURES, SECTION 06.04 - COAL TAR WRAP REMOVAL. For under 25' (feet) in length and an approved NYC-DEP variance for over 25' (feet).

2. Determination Of Operating Status Of Gas Facilities:

The Contractor shall notify facility operator, as required by New York State Industrial Code 753. Gas Facilities shall not be removed without the approval of the facility operator whose authorized representative shall certify in writing (specific facility or area wide facilities certification) and in a timely manner acceptable to the Resident Engineer that abandoned facilities are free of combustible gas and any other environmental contaminants prior to removal. The Resident Engineer shall rely on the facility operator's certification. The facility operator may request the excavation of test pits (See Section 6.07) for this determination ahead of City work and Contractor shall provide safe access, facilitate and permit facility operator to enter test pit excavations for the purpose of testing gas facilities. However, the facility operator may prefer to make this test during performance of City work in order to issue the above certification. This shall be permitted provided that it is agreed that additional costs, if any, resulting from this choice shall be a matter of adjustment between the Contractor and the facility operator only, and at no cost the City contract. Should such investigation result in the determination that the abandoned gas facilities do not contain Coal Tar Warp then the removal of said facilities shall be covered under separate item (See Section 6.03).

3. Requirements:

The Contractor shall excavate abandoned gas facility sufficiently, either in it's entirety, or at locations determined by Contractor to allow the removal of Coal Tar Wrap (if present on the abandoned gas facility) and to facilitate the safe extraction of manageable lengths of abandoned pipe without damage to adjacent facilities, utilities or city structures either parallel to or crossing above or below abandoned gas facility. The Contractor is to allow access to the designated cutting points within the Contractors trench by authorized Con Edison personnel who will remove the Coal Tar Wrap as per Con Edison and/or NYC-DEP approved procedures. This access shall conform to all applicable codes, rules & regulations. This work by Con Edison personnel shall be performed in a timely fashion and shall not unduly impede the Contractors progress and/or productivity. Upon completion of the coating removal, the Contractor shall be allowed to cut, burn or grind the gas facility and remove the section of abandoned pipe. Contractor shall designate a specific site to stockpile those removed pipes. The facility operator will be responsible to provide trucking and disposal services with its own personnel and shall remove the stockpiled pipes during off hours or during such time as agreed to by the Contractor. Since the pipe removed will remain the property of the facility operator and is to be disposed of by the facility operator, the facility operator shall be responsible for any required notifications, filings, dump charges and incidentals associated with the disposal of abandoned gas facilities found to contain Coal Tar Wrap.

4. Method Of Measurement:

Abandoned gas facility removal shall be measured for payment per linear foot of pipe and appurtenances removed.

5. Price To Cover:

The price shall cover all additional cost of supervision, labor, materials, equipment and insurance necessary to complete this work in accordance with the plans and specifications, including, but not limited to, excavation by hand around and under other City and facility operator owned properties and, where necessary, the support and protection of such properties. The cost shall also include hand excavation in the area(s) of proposed abandoned pipe cut(s), cutting and/or burning of abandoned gas pipes and stockpile of removed sections of abandoned pipe and associated maintenance of traffic, blocking and temporary fencing if required. The unit price shall also cover sealing open ends remaining in the excavation with concrete or end caps (end caps to be supplied by facility operator) and backfilling of the area where the abandoned pipeline has been removed with clean backfill material. This item does not include any type of extra excavation, backfilling, compaction, pavement removal and/or restoration (temporary and permanent) associated with abandoned pipe removal ("lost trench"), all of which are covered under separate Section 6.06. The price shall also include allowance for any loss of productivity by the Contractor due to required facility operator work to remove pipe coating and prepare pipe for cutting as well as any change in Contractor excavation method, additional trucking and/or stockpiling costs.

SECTION 6.04 - Adjust Hardware To Grade Using Spacer Rings/Adaptors. (Street Repaving.)

1. Description:

Under this section, the Contractor shall provide all labor, supervision, materials, equipment, insurance and incidentals required to adjust to final grade gas street surface hardware located within the contract area boundaries shown on the plans. The gas company operating in the area, (facility operator), owns these facilities. The work shall be performed in accordance with the contract plans, specifications and at the directions of the Resident Engineer in concurrence with authorized representative of the facility operator.

2. Materials:

The facility operator shall furnish and deliver all prefabricated hardware parts required. These include adaptors for the grade adjustment proper and new street hardware if existing ones are found to be defective, all in accordance with the facility operator standards and City rules and regulations. The Contractor shall notify the facility operator of the installation schedule at least three (3) business days before materials are required on the site. Should the facility operator fail to deliver the necessary material according to any schedule mutually agreed upon by the Contractor and facility operator, the City shall not be responsible for any delays attributable thereto, nor for the failure of delivery of such materials. On project where material storage is not permitted on site, the facility operator shall deliver the required material to the Contractor's yard and it shall be the Contractor's responsibility to transport the material to the work site when needed for installation. It shall also be the Contractor's responsibility to inspect the materials to be installed by him immediately upon delivery and advise the facility operator through its authorized representative, of all damaged materials. The Contractor at no additional expense to the City or the facility operator shall replace any material that is damaged or lost after the Contractor's inspection.

3. Method Of Measurement:

The Contractor shall be paid for each six (6) inch round box and/or nine (9) inch square box adjusted to grade regardless of adjustment height requirements.

4. Price To Cover:

The unit price bid for this item shall include all additional labor, supervision, insurance, equipment and material (except those to be provided by the facility operator), required to adjust each box to grade as required in the contract plans and specifications. The bid price shall also include the removal of existing frames and covers from existing facilities to be salvaged and returned to the facility operator and, all material transportation from the Contractor's material storage yard to the work site. In addition the bid price shall include "chipping" around existing box using appropriate means and methods where grinding is required.

SECTION 6.05 - Adjust Hardware To Grade By Resetting. (Road Reconstruction.)

1. Description:

Under this item, the Contractor shall provide all labor, supervision, materials, equipment, insurance and incidentals required to adjust to the proposed grade gas street surface hardware located within the contract area boundaries shown on the plans. The gas company operating in the area, (facility operator), owns these facilities. The work shall consist of either building up or lowering or resetting the casting by removing the existing frame and cover building up or decreasing the existing installation, replacing the frame and/or cover if damaged or worn out, as determined by the Resident Engineer, with a new frame and/or cover furnished by the owner, and setting the frame and cover to new elevation. The work shall be performed in accordance with the contract plans, specifications and at the directions of the Resident Engineer.

2. Materials:

The facility operator shall furnish and deliver all new hardware parts required. The Contractor shall furnish materials such as mortar, bricks and concrete in compliance with contract requirements. At locations where high-early strength concrete is required under this contract to be placed adjacent to gas facilities, then the requirement for concrete shall be high-early strength complying with the current New York State Department of Transportation, Standard Specifications for Class F concrete. Existing castings may be replaced as required and deemed necessary by the Engineer and by City rules and regulations. The Contractor shall install the new castings of various sizes furnished by the facility operator. The Contractor shall notify the facility operator of the installation schedule at least three (3) business days before materials are required on the site and, shall provide off-loading services to the facility operator. Should the facility operator fail to deliver the necessary material according to any schedule mutually agreed upon by the Contractor and facility operator, the City shall not be responsible for any delays attributable thereto, nor for the failure of delivery of such materials. Such delays shall be a matter of adjustment between the Contractor and the facility operator. On project where material storage is not permitted on site, the facility operator shall deliver the required material to the Contractor's yard and it shall be the Contractor's responsibility to transport the material to the work site when needed for installation. It shall also be the Contractor's responsibility to inspect the materials to be installed by him, immediately upon delivery and advise the facility operator through its authorized representative, of all damaged materials. The Contractor at no additional expense to the City or the facility operator shall replace any material that is damaged or lost after the Contractor's inspection.

3. Methods Of Construction:

The Contractor shall remove and reinstall existing castings or install new castings to the proposed grade. Setting and resetting the castings shall be done with mortar and brick according to the standards of the facility operator. Work shall be performed in a workmanlike manner. Castings that are deemed unacceptable for resetting shall remain the property of the facility operator and he shall be responsible for their removal and proper disposal from site. No traffic shall be allowed on adjusted street hardware until permitted by the Engineer.

4. Method Of Measurement:

The Contractor shall be paid for each gas hardware adjusted to grade regardless of size or adjustment height requirements (up or down).

5. Price To Cover:

The unit price bid for this item shall include all additional labor, supervision, insurance, equipment and material (except those to be provided by the facility operator), required to adjust each gas hardware to grade as required in the contract plans and specifications. The bid price shall also include the removal of existing frames and covers from existing facilities; building up the existing installations with bricks and mortar, or lowering the existing installation by removing bricks and mortar; replacing damaged frames and/or covers with new frames and/or covers furnished by the facility operator; setting the frames and covers to the new elevations; protect existing installations; repair minor structural damages to existing installations prior to resetting frames; unloading of furnished castings at the Contractor's yard and transporting castings from the Contractor's yard to the job site as required; completing the work in

accordance with the contract plans, specifications and, at the directions of the Engineer. In addition the bid price shall include "chipping" around existing gas facilities using appropriate means and methods where grinding is required.

SECTION 6.06 - Special Care Excavation And Backfilling.

1. Description:

Under this section, the Contractor shall provide all labor, materials, equipment, insurance and incidentals required to support and protect the integrity of live gas facilities including mains, services, related structures and appurtenances during excavations. The gas company operating in the area, (facility operator), owns these facilities. The work shall be performed in accordance with the contract plans, specifications and at the directions of the Resident Engineer in consultation with authorized representatives of the facility operator.

2. Applicability Of Section:

This section shall apply to live gas facilities of various sizes located within two (2) feet of any face of unsheeted excavation, (unsheeted excavation refers to any excavation performed for city work and includes excavations performed that are to be subsequently sheeted using approved methods) and paralleling or, encroaching any face of excavation. Also, for crossings greater than forty-five (45) degrees and/or located at a cover depth greater than five (5) feet from existing street surface. Parallel facilities are not exposed at any time during excavation (See "Gas Cost Sharing Work Standard Sketch No. 5"). Encroaching facilities are partially exposed inside the limit of excavation (See "Gas Cost Sharing Work Standard Sketch No. 5"). This section shall also apply to gas facilities crossing catch basins excavation, and catch basins sewer connections (chutes) trench excavation only when extra depth (covered in other section), is not required for chutes installations because of such utilities interferences (See "Gas Cost Sharing Work Standard Sketch No. 3"). This section shall also apply to gas services (if shown or otherwise listed in contract documents) crossing unsheeted excavations for water mains, gas facilities crossing fire hydrant branch connections, house sewer and/or water service connections excavations. This section shall also apply for so called "loss trench", as described further, and for additional excavation (pavement and/or soil), backfilling, compaction, roadway base and pavement restoration due to abandoned gas facilities, only if removed by Contractor. If operating status of gas facilities cannot be determined prior to excavation then such facilities shall be considered live and this section shall fully apply. The excavation around fully exposed live gas facilities along and within limits of excavation (not crossings) shall be covered by this section also (not shown on "Gas Cost Sharing Work Standard Sketch No. 5"), however the support requirement, if any is required, of such facilities is beyond the scope of these specifications and therefore shall be the responsibility of facility operator to determine and prescribe, at no cost to the City contract, but shall be a matter of adjustment between the Contractor and facility operator.

3. Payment Restriction:

No special care excavation shall be paid for abandoned gas facilities paralleling and/or encroaching excavation and therefore are not in direct interference with City work. Except as allowed in this section, the bid item specified under this section shall not be used in combination with items covered under other sections for work done due to a particular gas facility. This item shall not be paid for new gas facilities when trenching for such new facilities has been performed by the Contractor of record in common with trench excavation for City Work (overlapping trench limits). The cost of excavating with care as defined in this section shall be deemed included in the cost of trench excavation for the new gas facilities. This restriction shall apply even if such gas common trench excavation is not part of the contract. If facilities are in direct interference with City work, meaning that "Minimum Clearances" described in "General Provisions; Gas Cost Sharing Work Paragraph No. 8" cannot be maintained and excavation has to be temporarily or permanently abandoned then this particular location shall become a test pit and dealt with as specified in Section 6.07 and "General Provisions; Gas Cost Sharing Work Paragraphs Nos. 2 and 8".

4. Method Of Construction:

All excavation in the vicinity of gas facilities shall be as required by NYS Industrial Code 753. Where these facilities are paralleling and located two (2) feet or less from the limits of the proposed excavation, the Contractor shall use hand excavation methods (pick and shovel or hand held power tools) to ascertain

the clearances of these facilities with respect to the proposed excavation. Once the location of these facilities with respect to the proposed excavation is verified to the satisfaction of the Resident Engineer, the Contractor shall then proceed with a combination of hand and machine excavation as required preserving the integrity of the facilities. The installation of timber supports or underpinning, when soil foundation cannot fully support partially exposed pipes, may be required to prevent pipe movement as directed by the Resident Engineer.

5. Method Of Payment:

The unit price for this work item shall be based on cubic yard (CY) of average excavation with care and, is to be considered as an incremental cost for performing City work with gas facilities interferences.

6. Method Of Measurement:

- A. For Paralleling Facilities: Volume calculated as: Depth as measured from existing street surface to the bottom of unsheeted trench excavation allowable by OSHA regulations, multiplied by, the width measured as one (1) foot from the face of excavation toward the center of excavation, multiplied by the length of parallel facility, divided by twenty-seven (27) cubic feet per cubic yard (See "Gas Cost Sharing Work Standard Sketch No. 5"). The gas facility is no longer considered to be in interference once sheeting has been installed, therefore no further compensation for paralleling facilities as described above will be made.
- B. For Encroaching Facilities: Volume calculated as: Depth of trench as allowable by OSHA, maximum up to five (5) feet multiplied by, the width of partially exposed pipe plus one (1) foot, multiplied by the length of facility encroachment, divided by twenty-seven (27) cubic feet per cubic yard (See "Gas Cost Sharing Work Standard Sketch No. 5").
- C. Fully Exposed Gas Facilities: (Not shown on "Gas Cost Sharing Work Standard Sketch No. 5") along and inside trench and/or crossing trench at an angle greater than forty-five (45) degrees and/or a cover depth greater than five (5) feet from the existing street surface. The volume shall be measured as the depth of trench excavation multiplied by the distance measured along the sheeting line between two (2) points of intersections of the gas facilities and the sides of trench excavation, multiplied by the width of trench excavation.
- D. For Additional Excavation And Restoration Due To So Called "Loss Trench", When The Integrity Of Pavement And Soil Above And Around Existing Live Gas Facilities Cannot Be Maintained Due To Its Lack Of Cohesiveness: Volume shall be calculated as: Depth of unsheeted trench excavation multiplied by width measured as distance of facility from closest edge of unsheeted excavation plus, width of facility proper plus, one (1) foot or a maximum width of three (3) feet multiplied by length of facility fully exposed divided by, twenty-seven (27) cubic feet per cubic yard (not shown on "Gas Cost Sharing Work Standard Sketch No. 5").
- E. For Facilities Crossing Excavation For Catch Basins, Or Chutes Installations (When NYCDEP Funded) Or Fire Hydrant Branch Connections, Or Unsheeted Water Main Trench, Or House Sewer And/Or Water Services: Volume calculated as: Depth as measured from existing street surface to the bottom of the trench excavation multiplied by, the width taken as the outside diameter of pipe or the width of structure plus one (1) foot on either side (two (2) feet), multiplied by, the length of exposed facility crossing the trench, divided by twenty-seven (27) cubic feet per cubic yard (not shown on "Gas Cost Sharing Work Standard Sketch No. 5").

Overlapping volume dimensions measured as described above may occur when multiple facilities are paralleling excavations, encroaching excavations or crossing catch basins and catch basin chute installations. In such cases, all such facilities shall be counted as one limited by the extreme pipes, faces (See "Gas Cost Sharing Work Standard Sketch No. 2"). The volume shall then be calculated as described above.

7. Price To Cover:

The bid price shall also cover all additional supervision, labor, material, equipment and insurance necessary to excavate while protecting and maintaining (excluding supports for fully exposed live gas) gas facilities without disruption of service to the public and in accordance with contract specifications. The

price shall also include, changes of sheeting method and excavation width configuration where necessary to accommodate gas facilities in their existing locations; difficulties during the installation of catch basins, chute connections, hydrant branch, and house sewer and water connections under or over gas facilities; loss of productivity due to slower rate of excavation (special care) during excavation, including the use of such methods as: hand excavation around existing single and multiple facilities, extra excavation and backfilling due to lost trench because of existing and adjacent gas facilities, compaction, removal of sheeting from the facilities, extra roadway base restoration and temporary pavement, associated maintenance and protection of traffic, barricades, and traffic plates that may be required to temporarily close and/or complete the work.

SECTION 6.07 - Test Pits For Gas Facilities.

1. Description:

Under this section, the Contractor shall furnish all labor, materials, insurance, equipment and appliances necessary to excavate, sheet and, maintain test pits at locations approved by the Resident Engineer in consultation with the facility operator. Test pits shall be dug in order to ascertain exact locations, cover and invert elevations, clearances, alignment and operating status (live or dead) of existing gas facilities. The Contractor shall inspect jointly with the Resident Engineer and facility operator, gas facilities and other structures uncovered, take all relevant measurements and elevations as directed by the Resident Engineer. Tests to determine operating status of gas facilities shall be performed by facility operator. The pits shall be covered with steel plates during daytime nonworking hours, and uncovered, as required, until the inspection work is completed. Testing of gas facilities may require a maximum of four (4) hours. Then, the pits shall be backfilled with clean fill, and resurfaced with temporary pavement. All traffic shall be maintained and all safety measures as stipulated shall be complied with.

2. Methods Of Construction:

A. Excavation: Existing pavement to be removed shall be neatly cut along lines of removal with a saw or other approved equipment which leaves a neat straight joint line along the juncture with subsequently replaced pavement. Excavation in the vicinity of utilities and other structures shall be performed using hand tools. Use of hand operated pneumatic and electric jackhammers will be permitted only for breaking pavement and removal of masonry, concrete and boulders, or as otherwise directed by the Resident Engineer. The Contractor shall properly dispose of all materials excavated from test pits away from site. Test pits shall be excavated at locations shown on the contract drawings or as directed by the Resident Engineer. Additional test pits may be required and shall be excavated where required, as ordered by the Resident Engineer. All test pits shall be excavated to a depth and size necessary to locate the existing facilities. Sheeting shall be used when depth of excavation exceeds five (5) feet. The sheeting required shall be furnished and installed in full compliance with the State of New York and Federal Safety Codes requirements and as specified in contract, whichever is more stringent. Care shall be taken that no existing gas facilities or other structures are broken or damaged. All broken or damaged facilities shall be reported immediately to facility operator who shall decide whether such facilities shall be repaired or replaced by company forces or by City contractor and in conformance with "General Provisions; Gas Cost Sharing Work Paragraph No. 9". Contractor shall excavate all material encountered, including large masses of concrete, cemented masonry and boulders, as directed by the Resident Engineer. Any type of excavation protection used, shall satisfy the following:

- (a) Industrial Code Rule 753.
- (b) Prevent injury to workers and the public, and avoid damage to existing water, sewer, and gas pipes or other structures, and to pavements and their foundations, through caving or sliding of the banks of the excavation.

Should it become necessary, as determined by the Resident Engineer, to enlarge any test pit in any dimension after sheeting has been placed, the Contractor shall remove portions of the sheeting, as necessary, enlarge the test pits as directed, and replace the sheeting without additional compensation for this work other than for the additional volume of material excavated.

B. Maintenance Of Test Pits: Excavated test pits shall be maintained free of debris and kept dry by the Contractor in order to permit the inspection and measurements and to determine the locations of

facilities. In order to accomplish this, Contractor shall, upon completion of excavation and placement of sheeting (if depth greater than five (5) feet), furnish and install adequate steel plates and posting over the excavated pits and shall temporarily remove all equipment debris and workers, and relocate barricades in order to open the full width of street to traffic during nonworking hours. The Contractor shall then, at no additional cost, relocate such barricades, barrels, cones and other warning devices and remove steel plates, as and when directed by the Resident Engineer to facilitate the inspection of exposed facilities. When work is being performed and the pits are not covered with steel plates, the Contractor shall provide complete and safe access to the test pits as may be required, and he shall provide construction barricades and maintain traffic at all times as shown or as directed by the Resident Engineer. Upon completion of test pit inspection by the Resident Engineer, the pit shall be backfilled by the Contractor as specified in contract, except that backfill material shall conform to contract specifications for such purpose.

- C. **Pavement And Sidewalk Restoration:** After backfilling is completed, the Contractor shall construct a temporary pavement consisting of a minimum of four (4) inches thick asphaltic concrete mixture in roadway areas or a two (2) inches thick asphaltic concrete mixture in sidewalk areas in order to maintain existing pedestrian and vehicular traffic. This temporary pavement shall be maintained until permanent pavement and sidewalk replacement is constructed as specified in contract.

3. Measurements:

The quantity to be measured for payment shall be the number of cubic yards of material removed from within the limits of the pit dimensions as directed by the Resident Engineer. The volume occupied by existing pipes or other structures remaining within the maximum payment lines will not be deducted from the total volume measured except, where the cross sectional area of these facilities exceeds four (4) square feet. As determined by the Resident Engineer, the quantity measured for payment may be proportionate to a fair and reasonable estimate of gas responsibility in the total volume excavated.

4. Price To Cover:

The contract price bid per cubic yard for test pits shall cover all additional costs of labor, material, insurance, equipment, appliances and incidentals required to excavate test pits, including removal and disposal of excavated materials, sheeting, steel plating, backfill, compaction and temporary pavement and sidewalk restoration all in accordance with the specifications and as directed by the Resident Engineer. The price shall also include the cost of providing safe access to the excavation by facility operator for the performance of certain test to determine operating status of gas facilities prior to City work. The price shall also include support and protection of all gas facilities crossing excavation, paralleling and/or encroaching any face of excavation.

GAS COST SHARING STANDARD SPECIFICATIONS
SCHEDULE GCS-A

Average rate charged by utility companies to Disconnect and Reconnect Gas Services:

- 1. National Grid - \$586.90 per Service/and Visit
- 2. Con Edison - \$524.00 per Service/and Visit

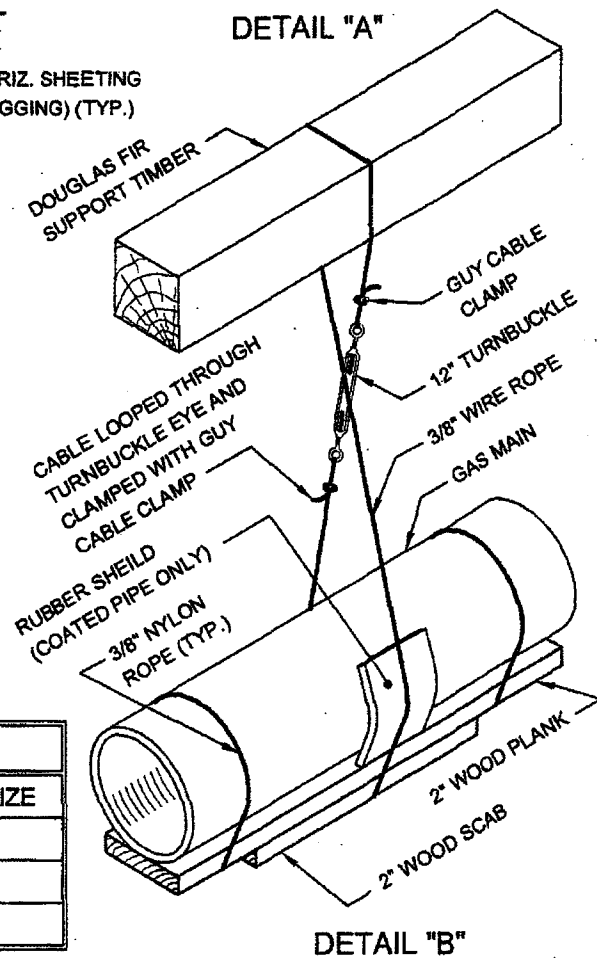
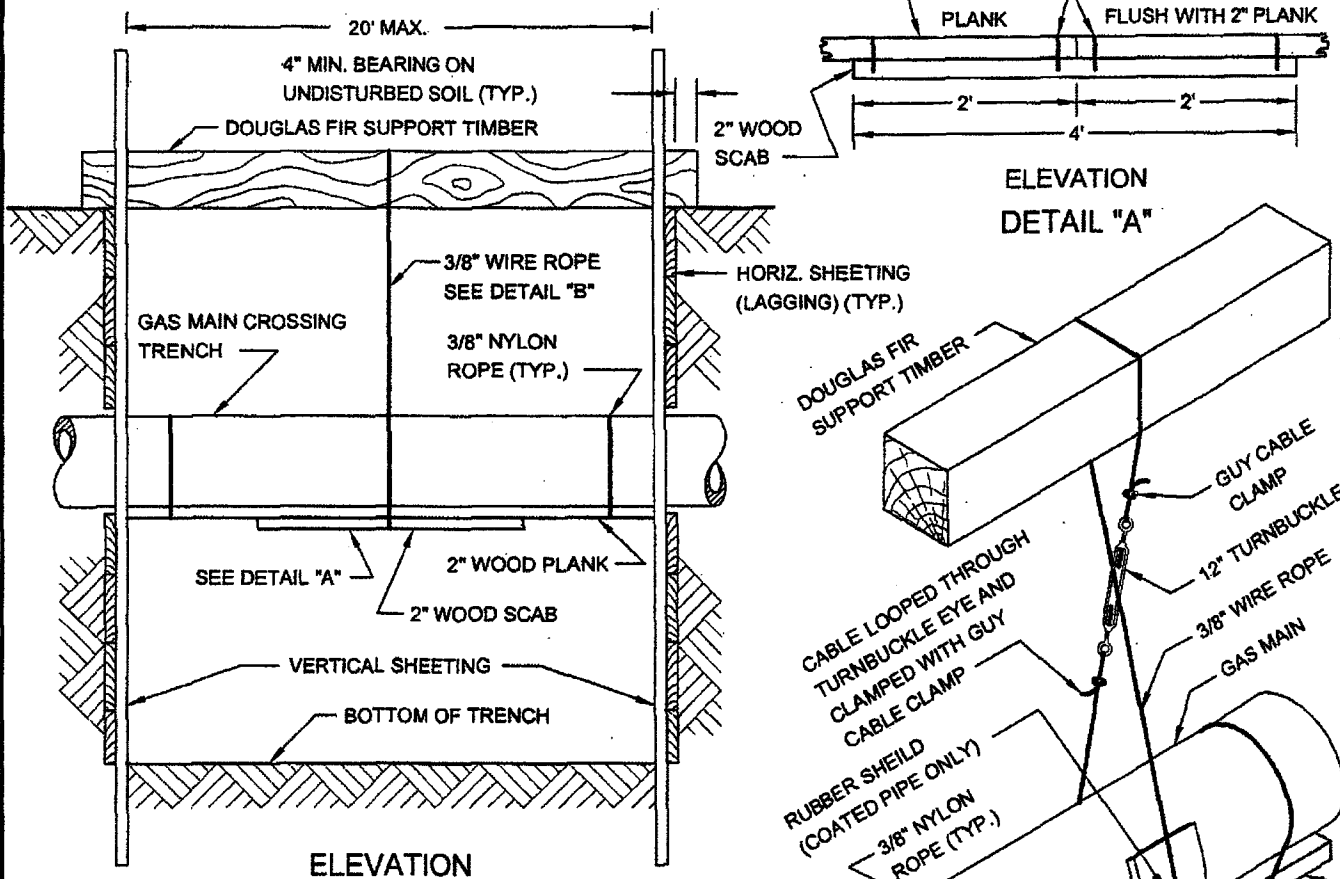
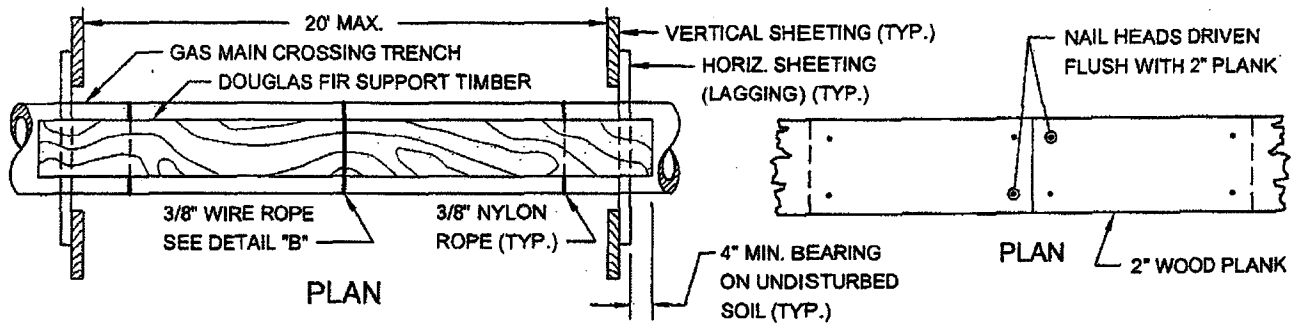
IV - STANDARD SKETCHES; GAS COST SHARING WORK

Hereinafter attached are the following Standard Sketches for Gas Cost Sharing Work:

- Sketch No. 1 - Support Requirements For Gas Mains And Services Crossing Excavation Greater Than 4' - 0" Wide At Any Angle
- Sketch No. 1A - Support Requirements For Gas Mains Over 16" Diameter Up To And Including 48" Diameter Crossing Excavation At Any Angle
- Sketch No. 2 - Typical Methods Of Measurement For Gas Crossings
- Sketch No. 3 - Utility Crossings During Catch Basin Chute Connection Pipe Installation
- Sketch No. 4 - Utility Crossings During Catch Basin Chute Connection Pipe Installation (Extra Depth)
- Sketch No. 5 - Gas Main Encroachment On And/Or Parallel To Excavation Of Unsheeted Trench

GAS COST SHARING WORK (SKETCH NO. 1)

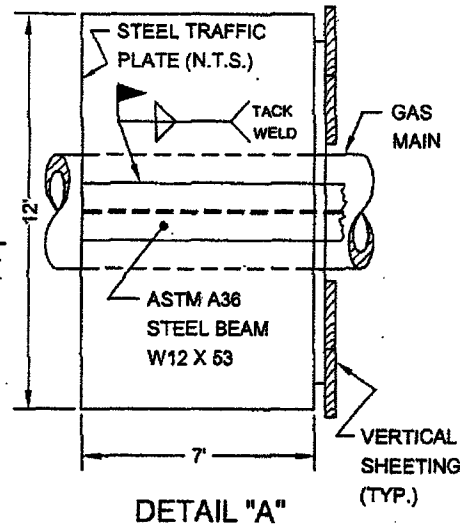
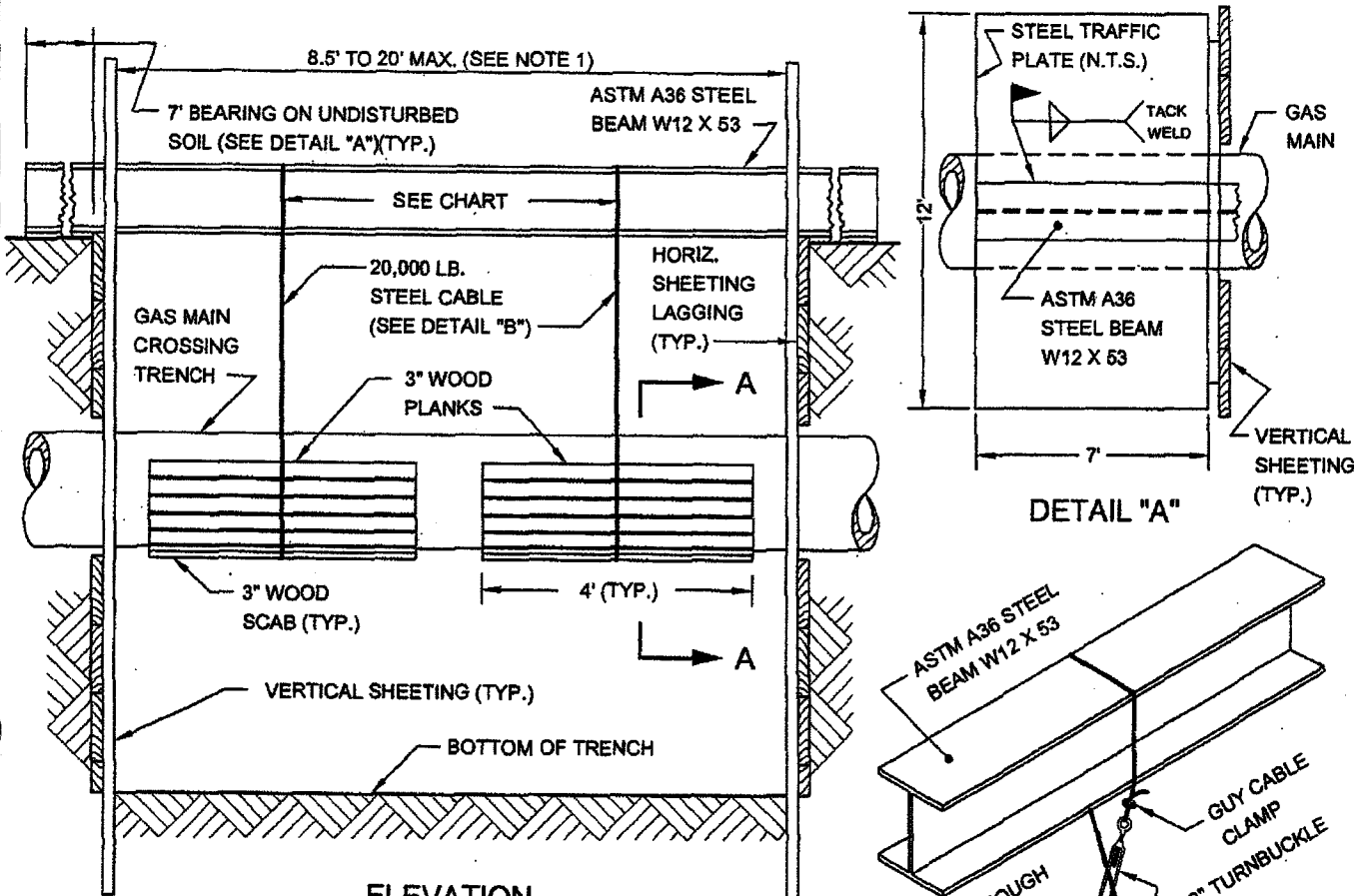
SUPPORT REQUIREMENTS FOR GAS MAINS AND SERVICES CROSSING EXCAVATION GREATER THAN 4'-0" WIDE AT ANY ANGLE



| CABLE SUPPORT | | TIMBER SUPPORT | |
|---------------|---------------|----------------|-------------|
| MAIN TYPE | SPACING | MAIN SIZE | TIMBER SIZE |
| CAST IRON | 4' O.C. MAX. | UP TO 6" | 6" X 6" |
| STEEL | 10' O.C. MAX. | 8" TO 10" | 8" X 8" |
| PLASTIC | 10' O.C. MAX. | 12" TO 16" | 10" X 10" |

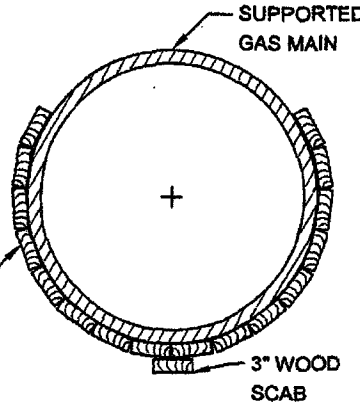
GAS COST SHARING WORK (SKETCH NO. 1A)

SUPPORT REQUIREMENTS FOR GAS MAINS OVER 16" DIAMETER UP TO AND INCLUDING 48" DIAMETER CROSSING EXCAVATION AT ANY ANGLE

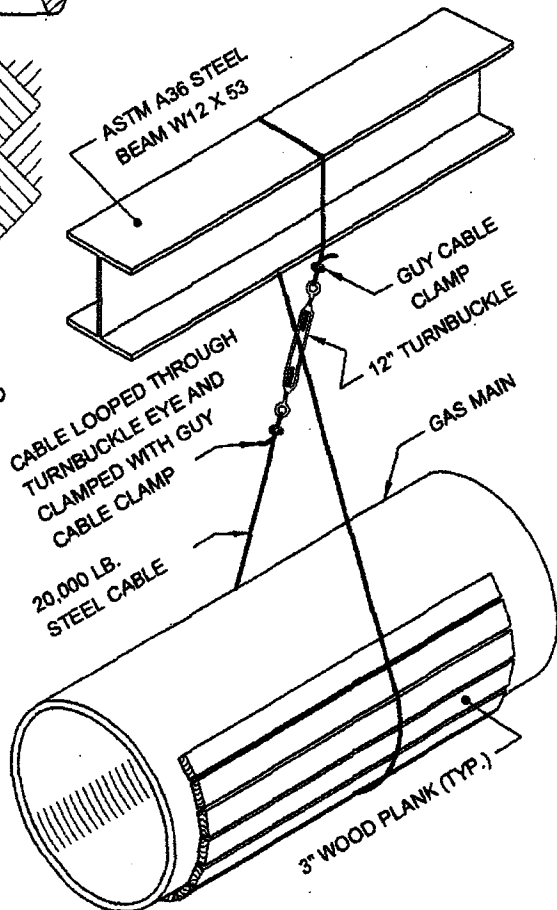


ELEVATION

| CABLE SUPPORT | |
|---------------|---------------|
| MAIN TYPE | SPACING |
| CAST IRON | 4' O.C. MAX. |
| STEEL | 10' O.C. MAX. |



SECTION A-A



DETAIL "B"

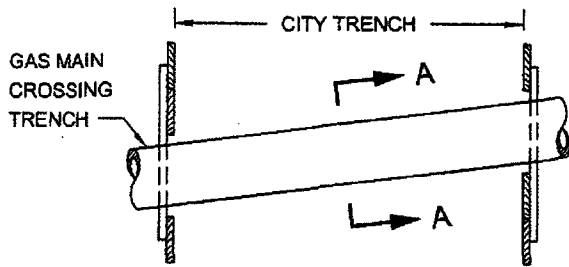
NOTES:

- (1) NO SUPPORT IS REQUIRED FOR GAS MAINS OVER 16" DIA. UP TO AND INCLUDING 48" DIA. CROSSING TRENCHES LESS THAN 8.5' WIDE.
- (2) UNDERMINE A MAXIMUM OF 8.5 L.F. OF CAST IRON GAS MAIN AT A TIME.
- (3) SET STEEL CABLE OVER 3" WOOD PROTECTIVE PLANKS AND PLACE AN ADDITIONAL 3" SCAB ON THE BOTTOM OF THE GAS MAIN.
- (4) ADJUST STEEL CABLE UNTIL DEAD WEIGHT OF THE UNDERMINED GAS MAIN HAS BEEN TAKEN UP BY THE OVERHEAD STEEL BEAM SUPPORT.
- (5) ALL SUPPORTS AND STEEL CABLES CAN BE REMOVED ONLY AFTER THE REQUIRED BACKFILL (AROUND AND BELOW GAS MAIN) HAS BEEN COMPACTED IN ACCORDANCE WITH NEW YORK CITY STANDARDS AND AT THE DIRECTIONS OF THE ENGINEER.

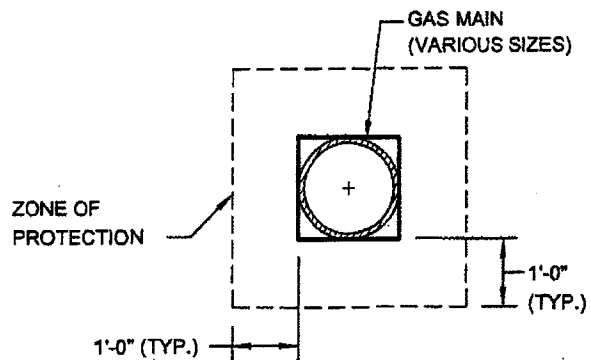
M. J. ADRIEN
 REVISION 10/88 - J. WONG / W. PATALANOP, MOY

GAS COST SHARING WORK (SKETCH NO. 2)

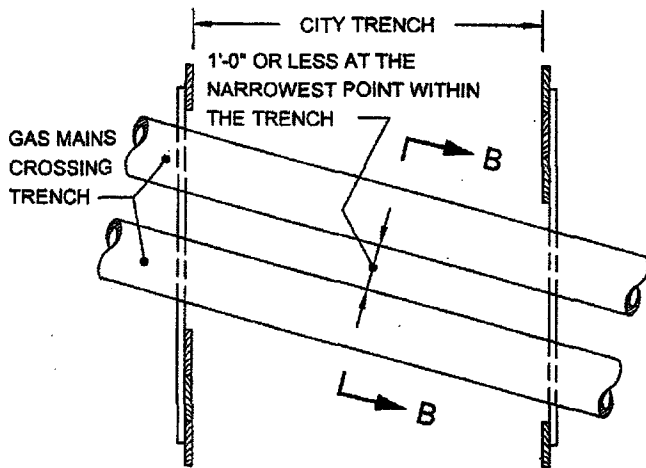
TYPICAL METHODS OF MEASUREMENT FOR GAS CROSSINGS



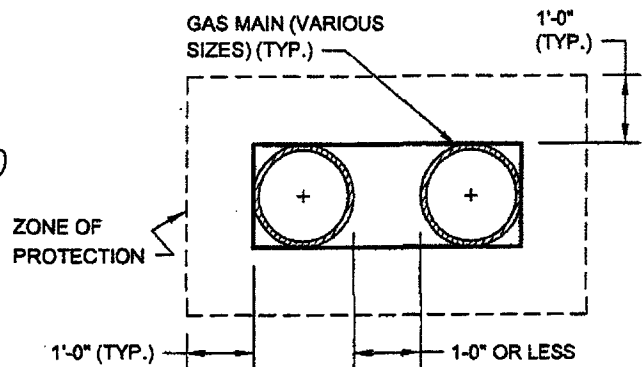
SINGLE FACILITY CROSSING



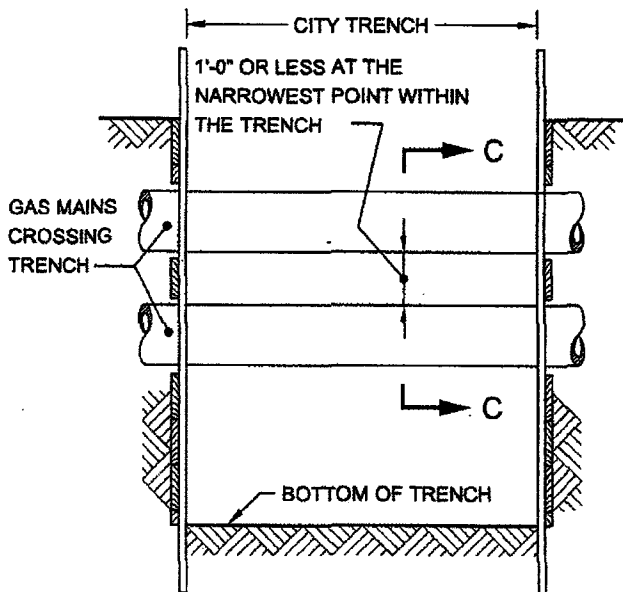
SECTION A-A



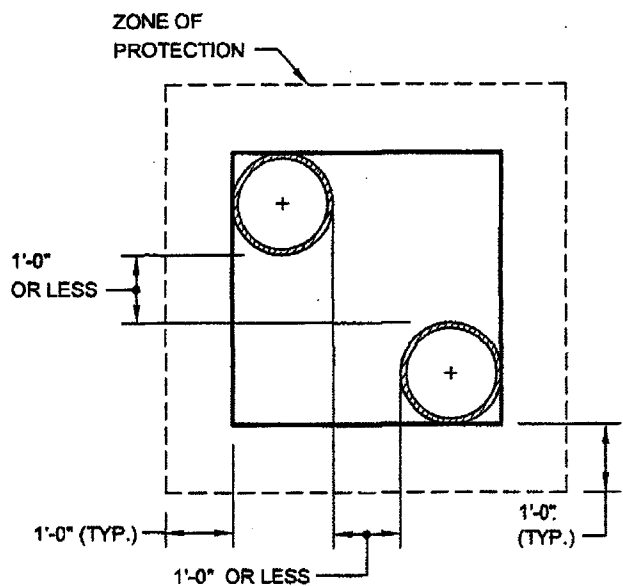
**MULTIPLE FACILITIES
(GAS MAINS AT SAME ELEVATION)**



SECTION B-B



**MULTIPLE FACILITIES
(ONE CROSSING AT DIFFERENT ELEVATIONS)**



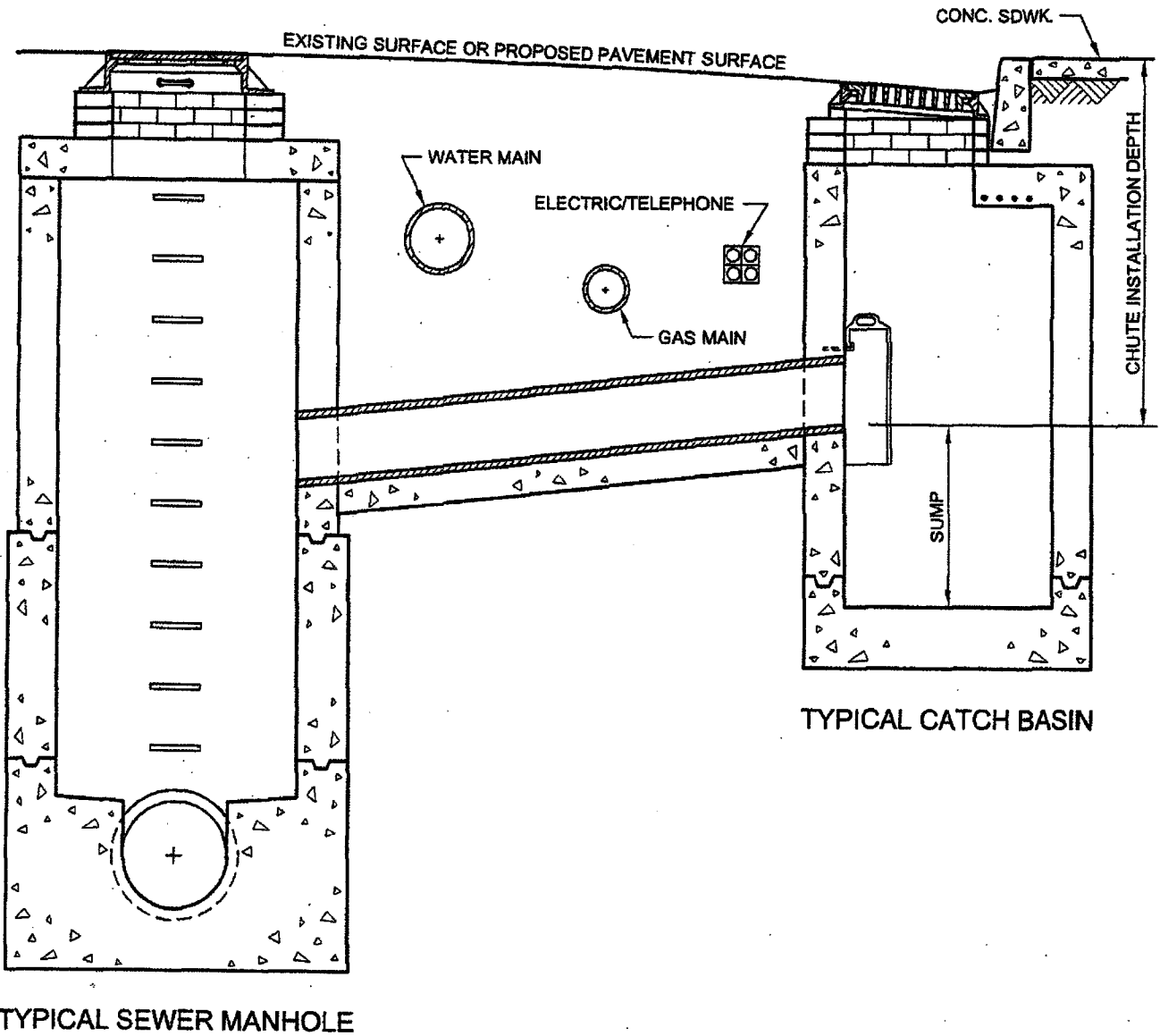
SECTION C-C

NOTE:

GAS MAINS MAY OR MAY NOT BE PARALLEL TO EACH OTHER.

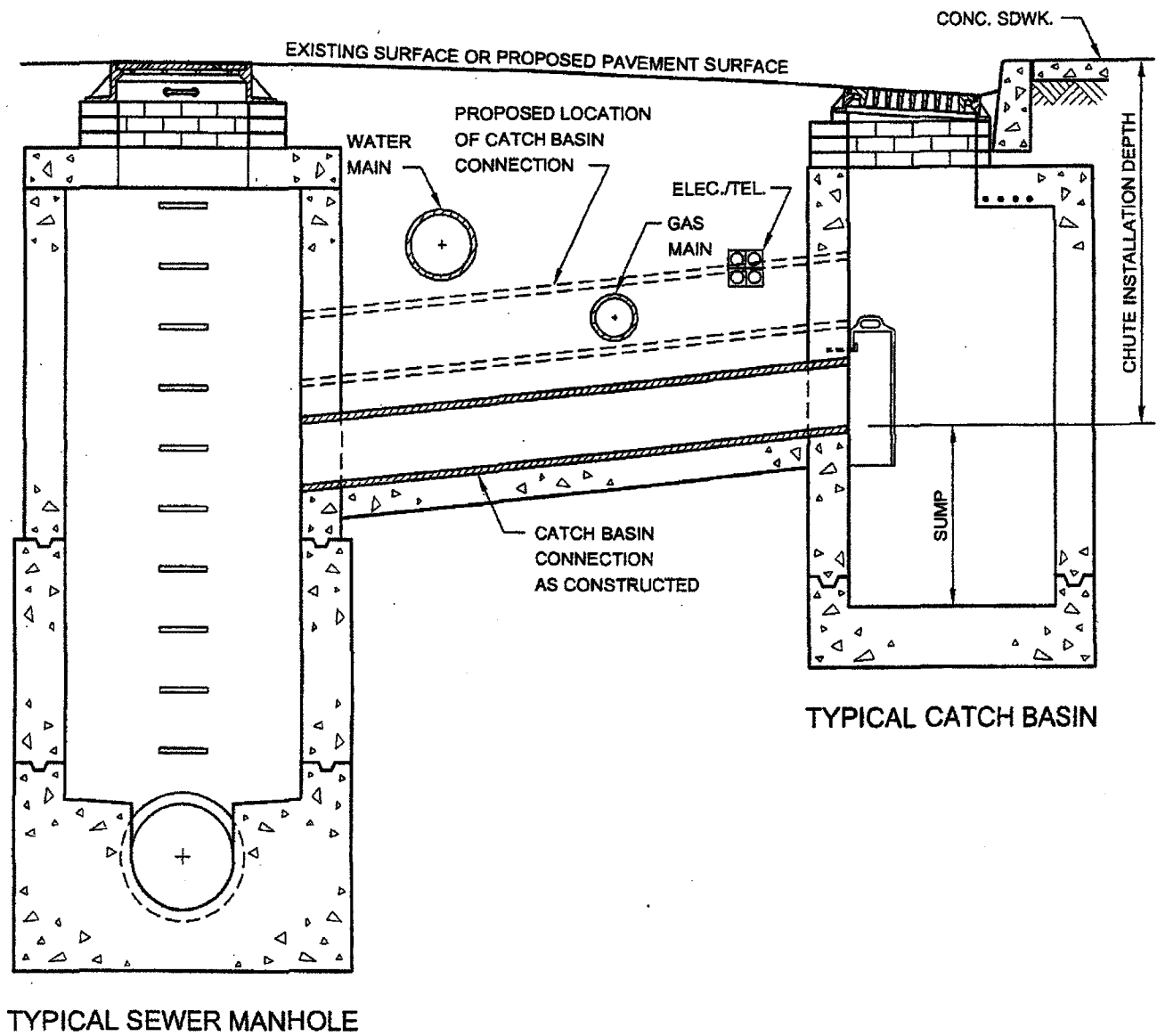
REVISED SEPT. 2004 - L. ADRIEN
REVISED SEPT. 2004 - J. WONGW. PATALANOP. MOY

GAS COST SHARING WORK (SKETCH NO. 3)
UTILITY CROSSINGS DURING CATCH BASIN CHUTE
CONNECTION PIPE INSTALLATION



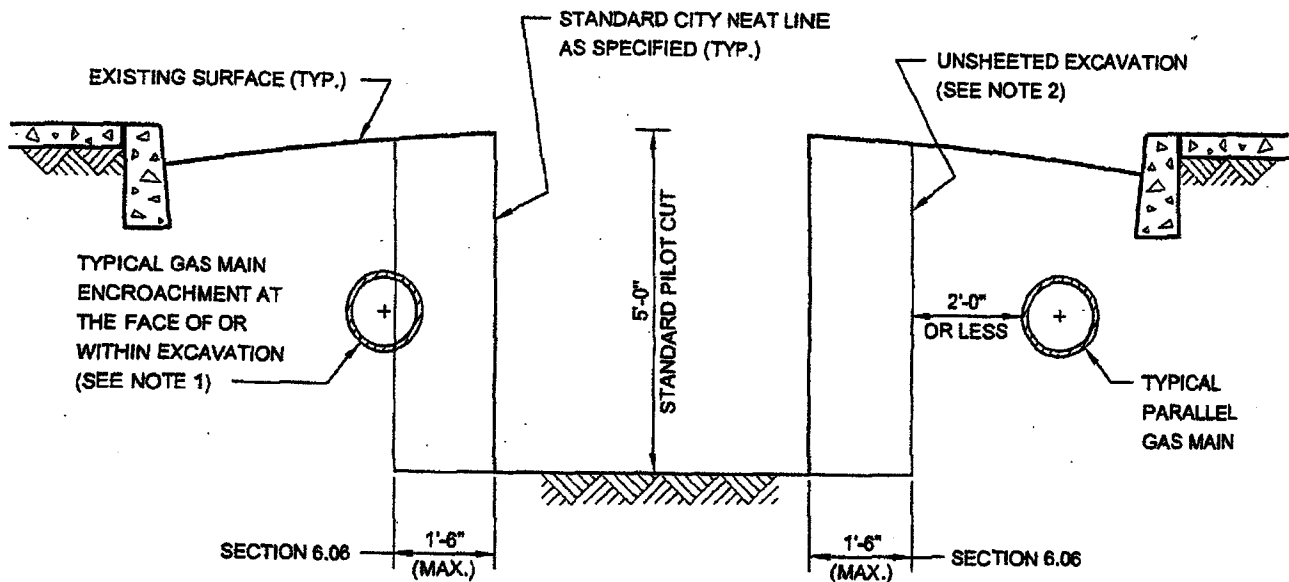
REVISIONS: 2004 - J. ADRIEN
REVISED OCT. 1988 - J. WONGW. PATALANOP. MOY

GAS COST SHARING WORK (SKETCH NO. 4)
UTILITY CROSSINGS DURING CATCH BASIN CHUTE
CONNECTION PIPE INSTALLATION (EXTRA DEPTH)



REVISED OCT. 2004 - J. ADRIEN
 REVISED OCT. 1998 - J. WONG/W. PATALANOP. MOY

GAS COST SHARING WORK (SKETCH NO. 5)
GAS MAIN ENCROACHMENT ON AND/OR PARALLEL
TO EXCAVATION OF UNSHEETED TRENCH



NOTES:

- (1) GAS MAIN LOCATED AS SHOWN MAY HAVE TO BE REMOVED BY THE FACILITY OPERATOR PRIOR TO THE START OF CITY EXCAVATION, OTHERWISE, THE CONTRACTOR WILL BE PAID UNDER SECTION 6.06 FOR THE SAID WORK. IF GAS MAIN IS ABANDONED THEN SECTION 6.03 SHALL APPLY.
- (2) EIGHTEEN (18) INCHES FROM STANDARD NEAT LINE IS THE MAXIMUM ALLOWABLE WIDTH OF AREA THAT MAY BE DISTURBED OR EXCAVATED DURING INSTALLATION OF CERTAIN TYPES OF SHEETING SYSTEMS THAT MEET THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS OF THE DEPARTMENT OF DESIGN AND CONSTRUCTION OF THE CITY OF NEW YORK.

REVISED 2004 - L. ADRIEN
 REVISED 1988 - J. WONG/M. PATALANOP, MOY

NO TEXT THIS PAGE

**V - PRELIMINARY GAS WORK TO BE PERFORMED BY
FACILITY OPERATOR.**

APPLICABLE TO ALL GAS DRAWINGS:

- ALL RELOCATION WORK SHOWN IN THIS ADDENDUM IS TO BE PERFORMED BY FACILITY OPERATOR.
- ALL SUPPORT AND PROTECTION WORK TO BE PERFORMED BY CITY CONTRACTOR
- IF ADDITIONAL INFORMATION IS NEEDED REGARDING THE FACILITY OPERATOR'S RELOCATION WORK, THE CONTRACTOR IS ADVISED TO CONTACT THE GAS COMPANY REPRESENTATIVE:

NATIONAL GRID
287 MASPETH AVE
BROOKLYN, NY 11201
GERARD P. LUNDQUIST
TEL: (718) 963-5506

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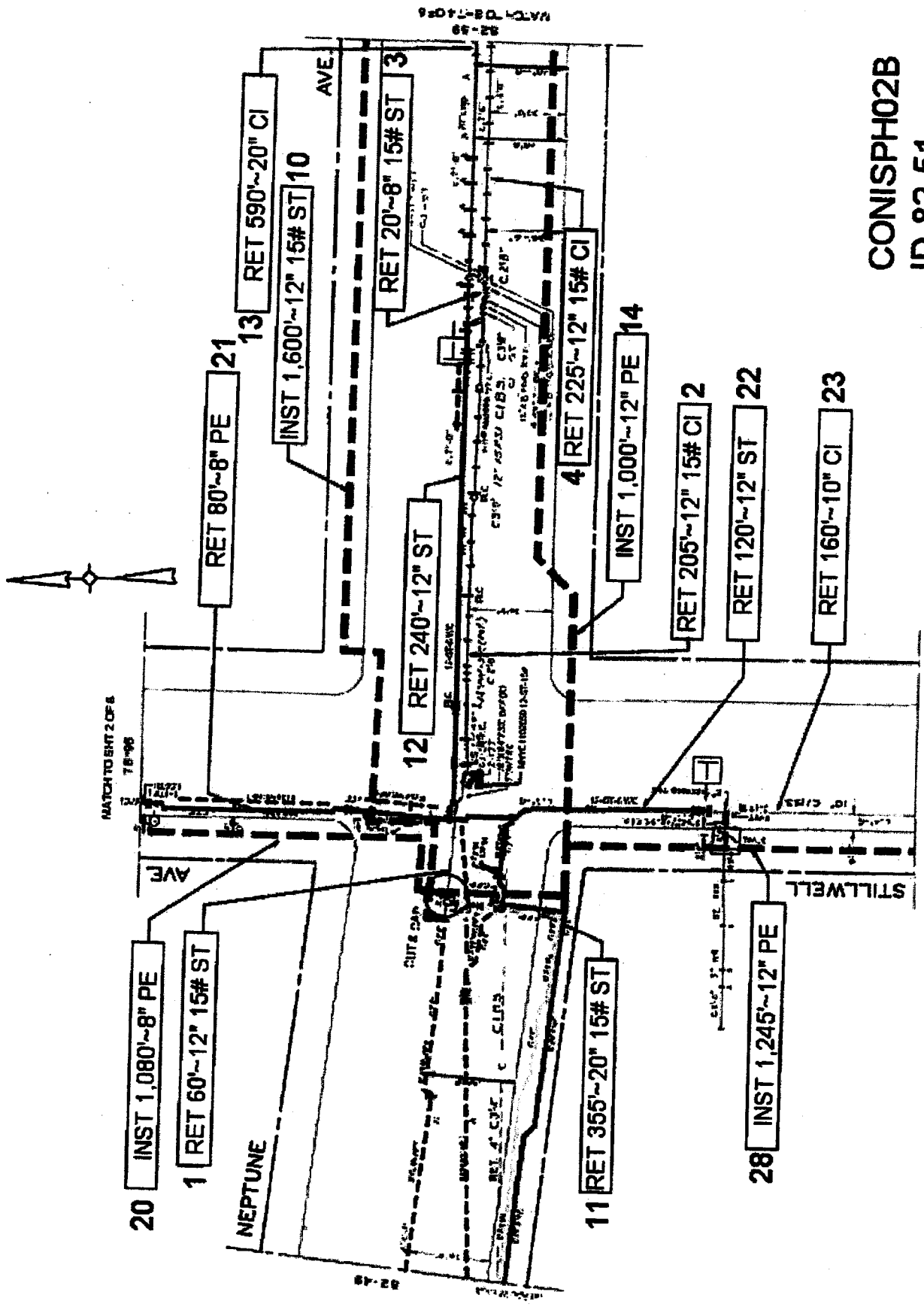
CONTRACT # CONISPH02B

| ITEM# | SHEET | ON STREET | SIZE | PRESSURE | MATERIAL | LENGTH | REIM / NON-REIM | ACTIVITY |
|-------|----------|---------------|------|----------|----------|--------|-----------------|----------|
| 1 | 1 | NEPTUNE AVE | 12" | 15# | ST | 60' | REIM | RET |
| 2 | 1 | NEPTUNE AVE | 12" | 15# | CI | 205' | REIM | RET |
| 3 | 1 | NEPTUNE AVE | 8" | 15# | ST | 20' | REIM | RET |
| 4 | 1 | NEPTUNE AVE | 12" | 15# | CI | 225' | REIM | RET |
| 5 | 4 | NEPTUNE AVE | 12" | 15# | ST | 15' | REIM | RET |
| 6 | 4 | NEPTUNE AVE | 20" | 15# | ST | 355' | REIM | RET |
| 7 | 4 | NEPTUNE AVE | 12" | 15# | CI | 110' | REIM | RET |
| 8 | 4 | NEPTUNE AVE | 12" | 15# | ST | 75' | REIM | RET |
| 9 | 4 | WEST 12 ST | 12" | 15# | ST | 140' | REIM | RET |
| 10 | 1, 4 | NEPTUNE AVE | 12" | 15# | PE | 1,600' | REIM | INST |
| 11 | 1 | NEPTUNE AVE | 20" | 15" | ST | 355' | REIM | RET |
| 12 | 4 | NEPTUNE AVE | 12" | 6WC | ST | 240' | REIM | RET |
| 13 | 1, 4 | NEPTUNE AVE | 20" | 6WC | CI | 590' | REIM | RET |
| 14 | 1, 4 | NEPTUNE AVE | 12" | 6WC | PE | 1,000' | REIM | INST |
| 15 | 4 | WEST 12 ST | 6" | 6WC | ST | 40' | REIM | RET |
| 16 | 4 | WEST 12 ST | 8" | 6WC | CI | 50' | REIM | RET |
| 17 | 4 | WEST 12 ST | 8" | 6WC | PE | 140' | REIM | RET |
| 18 | 3 | STILLWELL AVE | 8" | 6WC | ST | 190' | REIM | RET |
| 19 | 1 thru 3 | STILLWELL AVE | 6" | 6WC | CI | 755' | REIM | RET |
| 20 | 1 thru 3 | STILLWELL AVE | 8" | 6WC | PE | 1,080' | REIM | RET |
| 21 | 1 | STILLWELL AVE | 8" | 6WC | PE | 80' | REIM | RET |
| 22 | 1 | STILLWELL AVE | 12" | 6WC | ST | 120' | REIM | RET |
| 23 | 1, 5 | STILLWELL AVE | 10" | 6WC | CI | 160' | REIM | RET |
| 24 | 5 thru 7 | STILLWELL AVE | 12" | 6WC | CI | 955' | REIM | RET |

CONTRACT # CONISPH02B

SHT 2 OF 2

| ITEM# | SHEET | ON STREET | SIZE | PRESSURE | MATERIAL | LENGTH | REIM / NON-REIM | ACTIVITY |
|-------|----------|---------------|------|----------|----------|--------|-----------------|----------|
| 25 | 7 | STILLWELL AVE | 12" | 6WC | ST | 70' | REIM | RET |
| 26 | 6 | MERMAID AVE | 12" | 6WC | CI | 70' | REIM | RET |
| 27 | 6 | MERMAID AVE | 6" | 6WC | CI | 75' | REIM | RET |
| 28 | 5 thru 7 | STILLWELL AVE | 12" | 6WC | PE | 1,245' | REIM | INST |
| 29 | 6, 7 | STILLWELL AVE | 6" | 15# | PE | 185' | REIM | RET |
| 30 | 6, 7 | STILLWELL AVE | 6" | 15# | PE | 165' | REIM | INST |
| 31 | 7, 8 | SURF AVE | 12" | 15# | ST | 730' | REIM | RET |
| 32 | 7, 8 | SURF AVE | 12" | 15# | PE | 1,055' | REIM | INST |
| 33 | 7 | SURF AVE | 8" | 6WC | PE | 115' | REIM | RET |
| 34 | 7 | STILLWELL AVE | 12" | 6WC | PE | 150' | REIM | INST |
| 35 | 7 | STILLWELL AVE | 6" | 6WC | PE | 35' | REIM | RET |
| 36 | 7 | STILLWELL AVE | 6" | 6WC | CI | 35' | REIM | RET |
| 37 | 7 | STILLWELL AVE | 6" | 6WC | PE | 30' | REIM | RET |
| 38 | 7 | STILLWELL AVE | 6" | 6WC | PE | 10' | REIM | RET |
| 39 | 7, 8 | SURF AVE | 8" | 6WC | PE | 335' | REIM | RET |
| 40 | 7, 8 | SURF AVE | 8" | 6WC | PE | 210' | REIM | INST |
| 41 | 8 | WEST 12 ST | 8" | 6WC | PE | 210' | REIM | RET |
| 42 | 8 | SURF AVE | 8" | 6WC | PE | 365' | REIM | INST |



CONISPH02B
 ID-82-51
 SHT 1 OF 8

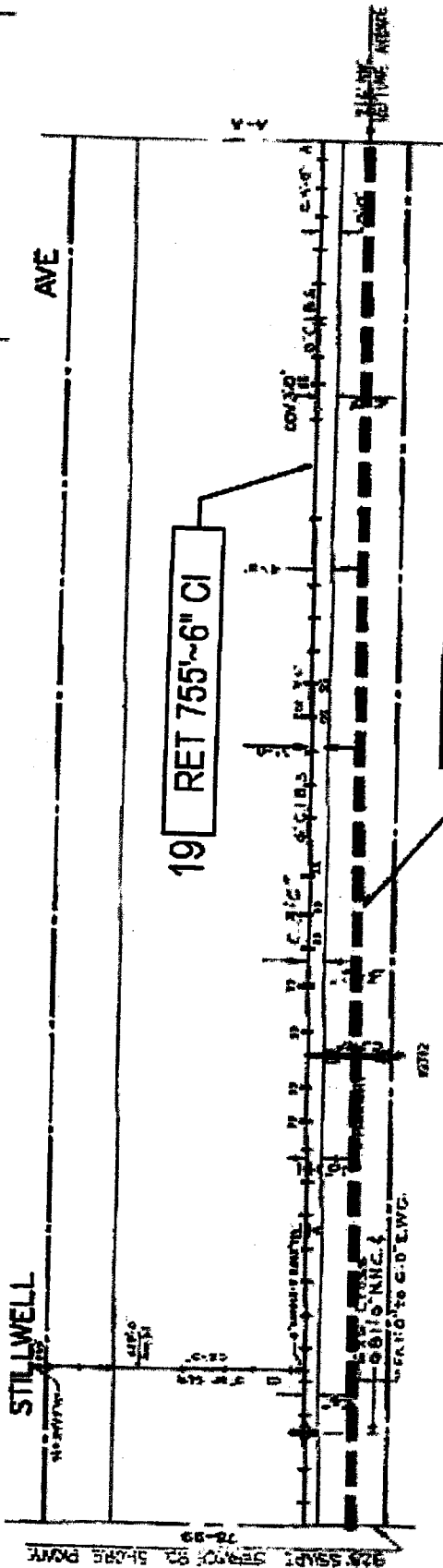
A3-22C

9275 SMDT STATION ON SHORE DRIVE
MATCH TO 4113 OF 8

9275 SMDT STATION ON SHORE DRIVE
MATCH TO 4113 OF 8

PER REC D.C.I.B.S.

AVE



INST 1,080'~8" PE 20

19 RET 755'~6" CI

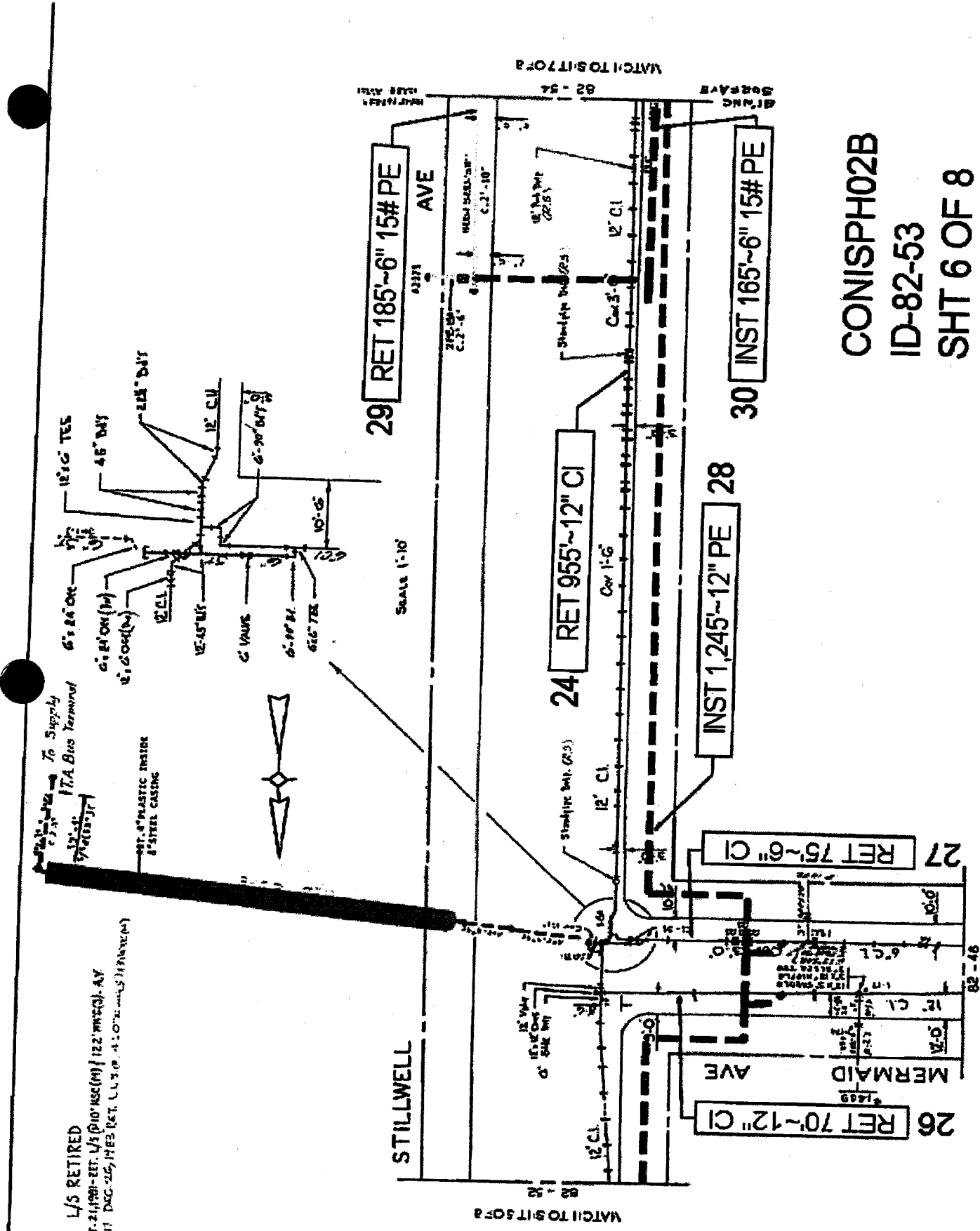
9275 SMDT STATION ON SHORE DRIVE
MATCH TO 4113 OF 8

A3-22D

CONISPH02B

ID-78-98

SHT 2 OF 8



To Supply
 17A Bus Terminal
 7400077

L/S RETIRED
 MO. 779071 SFT. 241980-RET. L/S (10' HSE (M) 122 HNS (Q). AY
 D.C. 410-725-111 D.C. 215 HES RET. L.S.P. 4:07L-511 (M) (M)

A3-22H

CONISPH02B
 ID-82-53
 SHT 6 OF 8

WATCH TO SHT 507A

WATCH TO SHT 707A

SEE PAGE

82-46

82-52

24 RET 955~12" CI

INST 1,245~12" PE 28

27 RET 75~6" CI

26 RET 70~12" CI

30 INST 165~6" 15# PE

29 RET 185~6" 15# PE

STILLWELL

MERMAID AVE

SCALE 1"=10'

AVE

12' V.W. 6" S.W. WY

Standard Mat. (25)

12' CI

Cov 1'-6"

Standard Mat. (25)

12' CI

Cov 3'-0"

REIN. CONC. 12" 10'

215-10' 2'-3"-4'

215-10' 2'-3"-4'

215-10' 2'-3"-4'

215-10' 2'-3"-4'

215-10' 2'-3"-4'

215-10' 2'-3"-4'

215-10' 2'-3"-4'

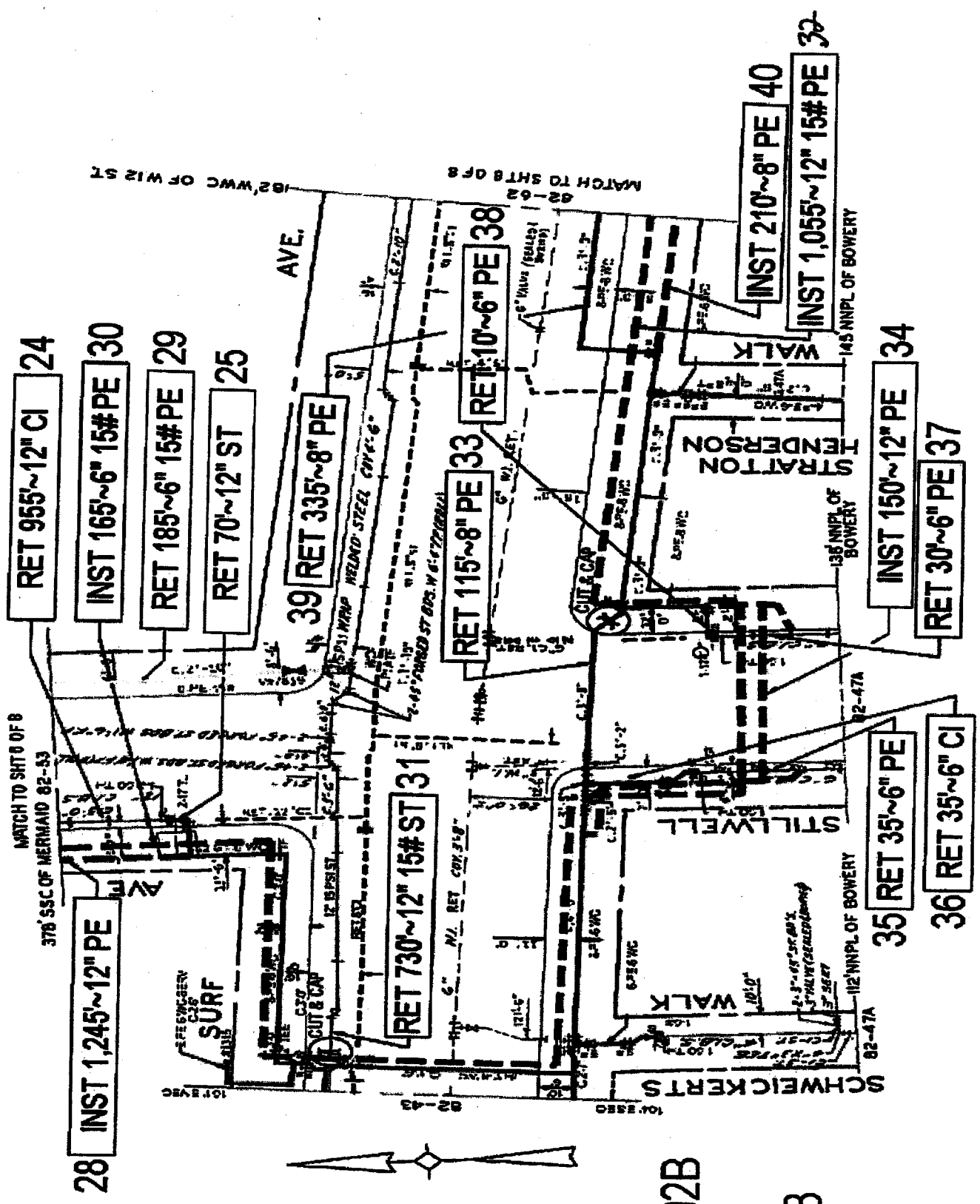
215-10' 2'-3"-4'

215-10' 2'-3"-4'

215-10' 2'-3"-4'

CONISPH02B
 ID-82-54
 SHT 7 OF 8

A3-22I



RET 955~12" CI 24

INST 165~6" 15# PE 30

RET 185~6" 15# PE 29

RET 70~12" ST 25

RET 335~8" PE 39

RET 730~12" 15# ST 31

RET 115~8" PE 33

RET 10~6" PE 38

INST 210~8" PE 40

INST 1,055~12" 15# PE 32

INST 150~12" PE 34

RET 30~6" PE 37

RET 35~6" PE 35

RET 35~6" CI 36

DIFFERENCES

VI - LISTING OF APPROXIMATE LOCATIONS OF EP-7 BID
ITEMS QUANTITIES

(NO TEXT IN THIS AREA, TURN PAGE)

**SCOPE OF WORK
SUPPORT AND PROTECTION
FOR CONTRACT CONISPH2B**

The City of New York Department of Design and Construction is proposing to install sewers and/or water mains and all appurtenances in various locations in The City of New York along with all work incidental thereto.

6.01.1 - Gas Main Crossing Sewer Up To 24" In Diameter. (Ea.)

- 1 in Stillwell Ave & Mermaid Ave.
- 2 in Neptune Ave bet Stillwell Ave & W 12 St.
- 2 in Surf Ave bet Stillwell Ave & W 12 St.
- 3 in Neptune Ave bet Stillwell Ave & W 15 St.
- 2 in Neptune Ave @ Stillwell Ave.
- 1 in Stillwell Ave bet Mermaid Ave & Surf Ave.

6.01.4A - Gas Main Crossing 4'-0"W x 2'-0"H F.T.R.C. Storm Sewer. (Ea.)

- 1 in Surf Ave bet Stillwell Ave & W 12 St.

6.01.4D - Gas Main Crossing 4'-0"W x 2'-6"H F.T.R.C. Storm Sewer. (Ea.)

- 1 in Neptune Ave @ Stillwell Ave.

6.01.6N - Gas Main Crossing 6'-0"W x 5'-0"H F.T.R.C. Storm Sewer. (Ea.)

- 1 in Neptune Ave bet Stillwell Ave & W 12 St.

6.01.7H - Gas Main Crossing 6'-6"W x 3'-0"H F.T.R.C. Storm Sewer. (Ea.)

- 1 in Stillwell Ave @ Mermaid Ave.
- 1 in Stillwell Ave bet Mermaid Ave & Surf Ave.

6.01.7V - Gas Main Crossing 7'-0"W x 5'-0"H F.T.R.C. Storm Sewer. (Ea.)

- 2 in Neptune Ave & W 12 St.

6.01.7NN - Gas Main Crossing 7'-6"W x 3'-0"H F.T.R.C. Storm Sewer. (Ea.)

- 1 in Neptune Ave @ Stillwell Ave.

**SCOPE OF WORK
SUPPORT AND PROTECTION
FOR CONTRACT CONISPH2B**

The City of New York Department of Design and Construction is proposing to install sewers and/or water mains and all appurtenances in various locations in The City of New York along with all work incidental thereto.

6.01.8 - Gas Services Crossing Trenches And/Or Excavations. (Ea.)

30 in Various Locations as Required.

6.01.9 - Gas Main Crossing Water Main Up To 20" In Diameter. (Ea.)

1 in Surf Ave bet Stillwell Ave & W 12 St.
2 in Mermaid Ave @ Stillwell Ave.
4 in Neptune Ave @ Stillwell Ave.
3 in Neptune Ave bet Stillwell Ave & W 15 St.
2 in Neptune Ave bet Stillwell Ave & W 12 St.
2 in Neptune Ave bet W 12 St & W 8 St.
1 in Stillwell Ave bet Neptune Ave & Shore Pkwy.
1 in Stillwell Ave bet Mermaid Ave & Surf Ave.

6.01.11 - Gas Main Crossing Water Main 36" Thru 42" In Diameter. (Ea.)

2 in Neptune Ave bet Stillwell Ave & W 12 St.

6.02 - Extra Excavation For The Installation Of Catch Basin Sewer Drain Pipes With Gas Interferences. (Ea.)

10 in Various Locations as Required.

6.03 - Removal Of Abandoned Gas Facilities. All Sizes. (L.F.)

3800 in Various Locations as Required.

**6.03.1 - Removal Of Abandoned Gas Facilities With Possible Coal Tar Wrap. All Sizes.(L.F.)
(For National Grid Work Only)**

400 in Various Locations as Required.

**SCOPE OF WORK
SUPPORT AND PROTECTION
FOR CONTRACT CONISPH2B**

The City of New York Department of Design and Construction is proposing to install sewers and/or water mains and all appurtenances in various locations in The City of New York along with all work incidental thereto.

6.04 - Adjust Hardware To Grade Using Spacer Rings/Adaptors (Street Repaving). (Ea.)

25 in Various Locations as Required.

6.05 - Adjust Hardware To Grade By Resetting (Road Reconstruction). (Ea.)

25 in Various Locations as Required.

6.06 - Special Care Excavation And Backfill. (C.Y.)

2000 in various locations as required, including but not limited to all gas services crossing unsheeted water main trenches.

6.07 - Test Pits For Gas Facilities. (C.Y.)

100 in Various Locations as Required.

End of Addendum No. 3

This Addendum consists of forty-three (43) pages.



THE CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
INFRASTRUCTURE DIVISION
BUREAU OF DESIGN

PROJECT ID: CONISPH2B

FOR THE CONSTRUCTION OF STORM, SANITARY SEWERS, TRUNK AND
DISTRIBUTION WATER MAINS REPLACEMENT AND APPURTENANCES IN:

NEPTUNE AVENUE BETWEEN W15TH STREET AND W12TH STREET
STILLWELL AVENUE BETWEEN SHORE PKWY AND SURF AVENUE
SURF AVENUE BETWEEN STILLWELL AVENUE AND W12TH STREET

TOGETHER WITH ALL WORK INCIDENTAL THERETO
BOROUGH OF BROOKLYN
CITY OF NEW YORK

ADDENDUM NO. 4

(SECTION U VERSION 2.0)

DATED: April 15, 2015

1. The Contractor shall be responsible for compliance with all the provisions of the following Sections and Schedules, which are hereby made a part of the original contract documents:
 - A. "SECTION U: Additional Contract Requirements Applying to Work Performed in the Presence of Privately Owned Utility Facilities" (Pages A4-3 through A4-13)
 - B. Schedule U-1 (Page A4-14)
 - C. Schedules U-2 listing scope of utility interferences is no longer included in City contract. Such information will be part of Interference Agreement between Utility Operator and Contractor.
 - D. Section U-3 Page A4-15 (as per the Private Utilities reference document for SECTION U called "CET SPECIFICATIONS AND SKETCHES", dated November 2010).
2. Each facility operator shall provide inspectors at the work site to inspect methods of interference work, verify quantities and items of Utility Work, and coordinate all phases of the facility operator operations.
3. In addition, the following statements are made to provide clarification of various paragraphs under Section U:
 - A. Section U, ¶3, requires the Contractor to immediately commence negotiations with each Company for an Interference Agreement under which the Company will compensate the Contractor for any Interference Work which the Company does not elect to perform with its own forces or by specialty contractors retained by the Company. Thus the Contractor is

on notice that its work under the Contract may be affected by Interference Work performed by (a) the Contractor pursuant to a separate Interference Agreement with the Company, (b) the Company, or (c) partly by each.

- B. The City has no contract with any of the Companies for work on or adjacent to the site of work under this Contract, and the Companies are not "Other Contractors" as defined for the purposes of this Contract. The Contractor is reminded, however, that pursuant to Section U, ¶3, the City will not compensate the Contractor for any direct and/or indirect costs related to Interference Work, regardless of whether such Interference Work is covered by an Interference Agreement between the Contractor and the Company or is performed by the Company using its own forces or by specialty contractors retained by the Company.
- C. Section U, ¶13, provides that the provisions of Section U are material provisions of the Contract and that the Contractor's failure to comply with the procedures set forth in Section U are sufficient for the Commissioner to declare the Contractor in default pursuant to Article 48 of the Contract.

Pursuant to this Addendum, the Contractor is informed that the Performance Bond required of the Contractor pursuant to the Contract is not deemed to guarantee performance of any of the Interference Work.

Section U: Additional Contract Requirements Applicable to Work Performed in the Presence of Privately Owned Utility Facilities

The Contractor is hereby notified that pursuant to the law and franchise agreements issued by the City, certain private utility and public service companies named in Schedule U-1 ("the Companies") own and/or operate surface and/or subsurface facilities within the limits of this contract. The existence of these facilities impacts the productivity of the City work called for in the contract. In order to improve coordination of the City construction with the private utility facilities owned and/or operated by the Companies named in Schedule U-1, Article 1.06.30 of the Standard Highway Specifications of the New York City Department of Transportation, Dated November 1, 2010; and/or Articles 10.15 through 10.18 of the Standard Sewer and Water Main Specifications of the New York City Department of Environmental Protection, Dated July 1, 2014; as applicable, are amended and will be implemented as follows:

1. Means and methods for City work:

- a) The Contractor is hereby notified that the utility interferences may impact the performance of, and/or interferes with, City work. The contractor will be required to perform such utility work as directed by the Resident Engineer in order to clear all utility interferences from the project site as required for satisfactory completion of City work within specified contract schedule.
- b) In areas serviced by overhead electric system, the contractor understands and by bidding for this contract agrees that he/she will be required to perform the public work in the presence of energized electrical overhead lines and appurtenances located in areas adjacent and/or within the project area. As a consequence he/she will select means and method of construction appropriate to maintain the safety clearances required or as permitted by electric operators in order to avoid damaging the insulation or shielding of these lines and also to prevent knocking them down.

2. *Field inspection prior to construction:*

Prior to the start of any contract work in areas serviced by overhead electric lines, and after the award to the apparent low bidder for this contract, the contractor must request a field walk of the project area along with the operator of the overhead electrical facilities and the DDC Engineer-In-Charge. At that time the facility operator will confirm the type and condition of the overhead electrical lines and the sufficiency of their insulating properties with respect to the means and methods proposed by the contractor. The contractor must be prepared to describe in enough details his/her proposed means and methods of construction operations in order to anticipate the likelihood that electric lines insulation would be cut or otherwise compromised. Also such details will allow the facility operator to anticipate the need for added insulation and/or shielding of non-insulated lines.

3. *Compensation for interference work:*

Compensation for Interference Work is a matter of adjustment between the Contractor and each private utility company located within the limits of the project area and whose utility facilities are affected by City contract work. In particular, the City will not compensate the Contractor for any direct and/or indirect costs related to Interference Work, including, but not limited to, lost profit, increased overhead, or any other impact costs. Upon receipt of a Notice of Award from the City, the Contractor shall immediately commence negotiations with each of the Companies concerning the manner in which and the price for which the Contractor, through its own forces or by others hired by it, will perform and be paid by the Company for all necessary Interference Work as defined above, and at known locations of City contract work, that the Company(ies) choose(s) not to perform with its(their) own forces or by specialty Contractors hired by it (them) (as per "Interference Agreement"). (Specialty contractors' work is limited to (i) insulation installation and removal, (ii) live gas and steam work, (iii) cleanup and disposal of hazardous materials, (iv) splicing live electrical and telecommunications facilities, and (v) work not traditionally performed by general construction contractors.

4. *Interference Agreement:*

1. Although the parties may negotiate an Interference Agreement in any format or manner they deem fit, the Contractor is hereby advised that the Companies have indicated to the City that they will agree to compensate the Contractor on a unit price

basis for Types of Interferences encountered on this Contract in accordance to the Private Utilities reference document for SECTION U called "CET SPECIFICATIONS AND SKETCHES", dated November 2010, copy of which is available on demand.

2. The Contractor shall notify the City upon concluding an Interference Agreement with each of the Companies.

5. *City contract work to continue without Interference Agreement :*

If, prior to the start of construction, as directed by the City's Order to work / Notice To Proceed (OTW/ NTP) date any of the Companies and the Contractor have not concluded an Interference Agreement as described above, then the City shall issue a written "48 Hours notice to Public Corporation" as prescribed by the City of New York Administrative Code", commonly referred to as "Order-Outs" and City construction will proceed as ordered and the Contractor will be directed by the Resident Engineer to perform the City work on Time, Material and Equipment basis (T&M) as specified in standard City contract agreement Article 26.2. T&M records will include identification of types of utility facilities interfering with City work, utility facility owners, specifying the nature and quantity of any materials, plant and equipment furnished or used in connection with the performance of such work and crew size, such as: name and number of each worker employed on such work. T&M records will also indicate the hours of active time, standby time and idle time. The Company (ies) and the Contractor will maintain separate records of the actual quantity and cost of labor, materials, and equipment expended, and will provide copies of this information to the other party on a daily basis for reconciliation. These T&M records along with cost evaluations will be submitted daily to the Resident Engineer for review and approval. The total cost of City work will be based on quantity of work performed multiplied by unit price contract bid items. The total interference cost will be calculated as the difference between the total T&M cost and total cost for City work. The Resident Engineer will conduct a monthly reconciliation session of the daily T&M records with the affected Company (ies) and contractor. If the contractor and affected utility companies cannot reconcile their T&M records, by the last day of each month, then the Resident Engineer will submit the approved City's T&M records along with total cost evaluations to the DDC Director of Construction who will review these records and recommend approval and validity certification by the DDC Deputy Commissioner.

1. Copies of the DDC approved and certified T&M records will then be transmitted by the DDC to the contractor and the utility companies. These certified records may be used by the contractor for compensation claims against the responsible private facility owners, or may be used by any party as supporting documentation in dispute regarding compensation for performing Interference Work. The contractor will be required to perform City work while invoices are submitted by the contractor to the Utility companies for payment within 30 days, or while compensation disputes between contractor and affected company (ies) are submitted to Binding Arbitration process described in Paragraph 9.
2. All issues related to utility work and/ or delays due to compensation disputes or claims against utility companies are not allowable as justification for granting contract time extensions or delay claims against the City. The City may assess liquidated damages specified in the contract for net overall delays suffered by City contract work as a result of utility issues, disputes and claims.
3. The standard City contract dispute resolution process specified in Article 27 "Presentation of disputes to Commissioner", of the standard City contract agreement is not applicable to any disputes related to utility work and/ or compensation for such work or claim against utility companies. Utility work issues, disputes and claims may only be submitted to Binding Arbitration process described in Paragraph 9.
4. The contractor will notify the Resident Engineer when utility work that require the intervention of company utility specialty crews causes excessive contractor's labor and equipment standby or idleness and, thereby jeopardizing the City project schedule. The Resident Engineer will submit the facts to the DDC Director of construction who will recommend to the Deputy Commissioner regarding the issuance of a "48 hours notice" to the concerned utility company as authorized by the New York City administrative Code Section 19-143 and/ or Section 24-521 as applicable.
5. Utility delays caused by utility and/ or by unavailability of utility specialty crews cannot be discounted for earning any contractual bonus when such bonus clause is included in a contract. However, if such specified bonus is not earned or disallowed by the City or if the City assesses specified liquidated damages as a result of such excessive delays, the contractor may seek damages from the responsible utility company (ies).

6. *Extra utility work with Utility Agreement:*

If during construction the Contractor encounters utility facilities interferences or utility scope of work that it believes is not covered by the Interference Agreement as described above, then the Contractor shall immediately notify the Company in writing, with a copy to the City, describing the nature and location of the extra work in question. The Company then has five (5) business days to investigate the conditions and then:

1. Advise the Contractor and the City in writing that no interference with its facilities exists at the location in question, and hence that the Contractor may proceed with City work without providing for any impact from Company facilities;
2. Advise the Contractor and the City in writing that the Interference Agreement negotiated pursuant to Paragraph 4, provides for the scope of work encountered.
3. Advise the Contractor and the City in writing that it intends to perform the necessary utility Work with company forces or with its own contractor including, but not limited to, relocating its facility out of the way of the proposed City work. In this case, the Company shall provide a written schedule for the performance of the utility work it proposes to perform, which shall be subject to approval by the City based on its impact to the Contractor's currently approved progress schedule. Upon approval of the Company's schedule by the City, the Contractor shall provide access to the worksite to the Company and/or any contractors hired by it to perform this utility work. If necessary, the City may grant a contract time extension for delays caused by the performance of such utility work by the company.
4. Reasonably specify in writing the scope of work to be performed by the Contractor on behalf of the Company that is not covered under the Interference Agreement negotiated pursuant to Paragraph 5, including, but not limited to, relocating, supporting, and/or protecting the Company's facilities, and/or shifting the City facility if approved by the Resident Engineer, and/or otherwise changing its operations to work in the presence of the Company's facilities. Should the Company elect this option, it must adequately define and provide an initial price offer for the work required to be performed.

7. *Means and Methods for utility work:*

Upon receipt of the Company's determination pursuant to paragraphs 6.2, or 6.4, above, the Contractor shall determine reasonable means and methods of performing the work defined by the Company. These means and methods are subject to approval of the Company, which shall not be unreasonably withheld. If, however, the Company objects to the Contractor's proposed means and methods then it shall define an alternate method of construction. Upon receipt of the Company's approval or its proposed alternate method of construction, the Contractor shall commence performance of the work defined by the Company as soon as possible, and shall perform the work in a good, workmanlike, and efficient manner, using the means and methods approved by the Company, in order to permit the City work to proceed in the most expeditious manner possible, but without imposing unreasonable and/or unnecessary costs on the Company. It is expressly understood by all parties that the City's rights pursuant to Article 4 of the Contract apply to Utility Work performed pursuant to this section.

8. *Disputed utility work covered by a utility agreement:*

The City Work will continue as described in paragraph 5 above. In the event of any dispute between the Company (ies) and the Contractor regarding any issue related to the performance of, or payment for, utility work, including, but not limited to, any indirect or impact costs incurred by the Contractor due to the Utility Work and/or to the existence of facilities owned or operated by the Company (ies) on the line of the work. The Company (ies) and the Contractor hereby agree to submit to each other a "Final Offer," in writing, by certified mail. Each party shall then have three business days to consider each other's Final Offer. In the event that neither party accepts the other's Final Offer within those three days, the Company (ies) and the Contractor agree to immediately submit the dispute to binding arbitration as described in Paragraph 9. During the pendency of any arbitration, the Company (ies) and the Contractor shall maintain separate records of the actual quantity and cost of labor, materials, and equipment expended, and to provide copies of this information to the other party on a daily basis for reconciliation. Any and all disagreement with the records maintained and provided by the other, must be documented in writing to all parties. However, these records are solely for the benefit of presentation to the arbitrator, whose decision may not necessarily be based on these records and in any event is final. Both parties should be aware that the City will not confirm or deny the accuracy of any records maintained by either party for Utility work

performed pursuant to a Utility Agreement. While the arbitration is pending, the Company shall pay the Contractor on a monthly basis, based on the price offered by the Company to the Contractor for the performance of the work.

9. *Arbitration of utility work:*

The arbitration of the issues described above shall be conducted pursuant to the Construction Industry Arbitration Rules of the American Arbitration Association (hereinafter "the Rules" and "AAA") in effect on the date the arbitration is initiated except as set forth herein. The arbitration award shall be final and binding upon the parties to the arbitration and judgment upon the award may be entered in a court having jurisdiction.

- (a) Once an arbitrator(s) has been appointed by the AAA, the arbitration shall be scheduled as promptly as possible given the arbitrator(s) and the parties' schedules.
- (b) No later than seven days prior to the first arbitration hearing, Company and Contractor shall submit to the arbitrator(s), and to each other, a summary of each party's respective position and such other information as is deemed appropriate, along with a copy of each party's Final Offer as specified in paragraph 8.
- (c) The arbitration shall be conducted and concluded in two days.
- (d) On the morning of the first day of the arbitration, Contractor and/or representatives shall have 3 ½ hrs to make a presentation of its claim to the arbitrator. During its presentation, Contractor shall not be permitted to produce any documents or cost records which have not already been provided to the Company. Contractor shall be permitted to produce any analysis or description of its claim which has been prepared for the purpose of its presentation.
- (e) After lunch, Company and/or its representatives shall have two hours to ask Contractor questions about its claim and its presentation. Thereafter the arbitrator(s) shall have two hours to ask Contractor questions about its claim and its presentation.
- (f) On the morning of the second day of the arbitration, Company and/or its representatives shall have 3 ½ hours to make a presentation of its claim to the arbitrator. During its presentation, the Company shall not be permitted to produce any documents or cost records which have not already been provided to the Contractor. The Company shall be permitted to produce any analysis or description of its claim which has been prepared for the purpose of its presentation.

- (g) After lunch, Contractor and/or its representatives shall have two hours to ask Company questions about its claim and its presentation. Thereafter the arbitrator(s) shall have two hours to ask Company questions about its claim and its presentation.
- (h) Subject to the above time limitations, the arbitrator(s) may conduct the arbitration in such manner as the arbitrator(s) deems reasonable.
- (i) The arbitrator(s) shall then have one week to select in writing, as the arbitrator ('s) award, that party's Final Offer which appears to be more reasonable, based on the presentations at the arbitration hearings.
- (j) The arbitrator shall have no discretion to grant an award other than one of the two Final Offers submitted by the parties.
- (k) Any award for work that has already been performed shall be paid on the 7th day after receipt of the arbitrator's decision, or on the 30th day after completion of the work, whichever is later. Payment for work not yet completed at the time of the arbitrator's decision shall be paid within 30 days of completion of work. Interest shall accrue from the date payment is due at the rate of 9% per annum. Either party may cause judgment to be entered in accordance with the arbitrator(s) decision in a court in the State of New York, County of New York.
- (l) The arbitrator's fees and any other costs of the arbitration shall be initially shared equally by Company and Contractor. The non-prevailing party shall then pay all arbitrator's fees and costs of the arbitration and shall reimburse the prevailing party for its share of such fees and costs theretofore paid.
- (m) The parties may, at any time, settle any matter submitted to arbitration.

10. Order-out waiver:

The Contractor and all subcontractors hired by it, if an Interference Agreement is executed as specified between the concerned parties, agree to waive any rights they may have, if any, under law, contract or otherwise to compel the City to assert any right the City may have, including the issuance of any directives required under the New York City Administrative Code, Section 19-143 and Section 24-521, to require any or all of the Companies to maintain, repair, replace, protect, support, shift, alter, relocate, and/or remove utility facilities in connection with the work to be performed under this contract. However, nothing in this section shall preclude the City from exercising its rights under the Law to issue such a directive to the Company.

11. *Cost of insurance:*

Each of the named Companies, at their option and if an Interference Agreement is executed as specified between the concerned parties, may be named as an additional insured on all insurance policies required to be maintained under this contract. In the event that a Company opts to be so named as an additional insured, the actual incremental cost, if any, to the Contractor of providing such insurance coverage shall be borne by that Company. The Contractor shall provide a written statement from its insurance provider documenting the actual cost of this added coverage to the Company. Under no circumstances shall the cost of insurance coverage on behalf of any Company be borne by the City. Nothing in this paragraph shall be interpreted to imply the City's acceptance of any additional responsibility or liability for any matter related to the performance of Utility Work. In particular, the Company and the Contractor bear joint and full responsibility to ensure that any Utility Work performed by the Contractor is in compliance with all applicable government and Company regulations.

12. *Cost of utility interference work:*

The Companies, by virtue of a prior agreement with the City, have agreed to perform their obligations described in this section. It is expressly understood that the cost of Utility Work or any delays cost cause by such utility work shall not be a charge against the City, but shall be a matter for adjustment between the Contractor and the Company or Companies concerned. The City and the Contractor agree that the Companies are third party beneficiaries of this section of the contract, if a Utility Agreement is executed between the contractor and utility company (ies). The provisions of this section shall govern in all cases where Company property interferes with or is about to be disturbed by the City work, notwithstanding any other provision of the Contract, except for Natural Gas transmission/distribution facilities covered subject to the Gas Facility Cost Allocation Act (GFCAA) and covered separately in this contract.

13. *Default declaration:*

The Contractor agrees that the provisions of this section are material provisions of the contract, and that the Contractor's failure to comply with the procedures set forth above are sufficient for the Commissioner to declare the Contractor in default pursuant to Article 48 of the Contract.

14. NYS Labor Law:

The Contractor is hereby advised that New York State Labor Law applies to public work. The work described in this Section U of the contract performed by utility company (ies) with their own forces or vendors hired by such company (ies) is not public work.

15. Facility operators:

The insurance requirements in Paragraph 11 of this Section U apply to: (i) additional Companies, if any, who were not named in Schedule "A" but which have executed a Utility Agreement with the contractor for utility work; and (ii) additional coverage, if any, paid for by Utility Companies whose utility facilities are located within the project limits, that they may require for the utility work pursuant to an utility agreement between the contractor and such utility companies.

[End]

“STANDARD UTILITY LETTER OF AGREEMENT”

(Name)
Deputy Commissioner, Infrastructure Division
Department of Design and Construction
30-30 Thomson Avenue
Long Island City, NY 11101

RE: City Work Performed in the Presence of Private Utility Facilities
Project No: _____

Dear (Name):

This letter is to certify that _____, has requested the inclusion of the attached “Section U: Additional contract requirements applying to work performed in the presence of privately owned utility.” The company agrees to abide by the terms of this Section U at the company’s own expenses due to their facilities interferences with the Public work.

Sincerely,

By: Authorized Company Representative

Title

NOTARY PUBLIC

CERTIFIED AS TO FORM
AND LEGAL AUTHORITY:

By: _____

SCHEDULE U-1

CON-IS-PH 2B

STORM AND SANITARY SEWER, DISTRIBUTION WATER MAIN CONSTRUCTION IN CONEY ISLAND, PHASE 2B

LISTING OF COMPANIES NAMED FOR THIS CONTRACT

| COMPANY NAME | CONTACT NAME | CONTACT TELEPHONE |
|---------------------|---------------------|--------------------------|
| CON EDISON | THERESA KONG | 212-460-4834 |
| VERIZON | AUBREY MAKHANLALL | 718-977-8165 |
| CABLE VISION | SCOTT TALBOT | 718-861-6890 |

SECTION U-3

(NO TEXT IN THIS SECTION)

END OF ADDENDUM No. 4
This Addendum consists of Sixteen (16) pages

ATTACH TO CONTRACT DOCUMENTS

**THE CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
INFRASTRUCTURE DIVISION
BUREAU OF DESIGN**

PROJECT ID: CONISPH2B

**FOR THE CONSTRUCTION OF STORM AND SANITARY SEWERS AND TRUNK WATER MAINS AND
APPURTENANCES IN CONEY ISLAND AREA PHASE 2B**

INCLUDING WATER MAIN WORK

Together With All Work Incidental Thereto

BOROUGH OF BROOKLYN

ADDENDUM NO. 5

DATED: April 15, 2015

This Addendum is issued for the purpose of amending the requirements of the Contract Documents and is hereby made part of said Contract Documents to the same extent as if it was originally included therein.

**SPECIFICATIONS FOR
HANDLING, TRANSPORTATION AND DISPOSAL
OF NONHAZARDOUS AND POTENTIALLY HAZARDOUS
CONTAMINATED MATERIALS**

(NO TEXT ON THIS PAGE)

**SPECIFICATIONS FOR
HANDLING, TRANSPORTATION AND DISPOSAL
OF NON-HAZARDOUS AND POTENTIALLY HAZARDOUS
CONTAMINATED MATERIALS**

Installation of Storm and Sanitary Sewers in Coney Island Area

Phase 2B

Borough of Brooklyn

DDC Project No. CONISPH2B

Prepared By:



**NEW YORK CITY DEPARTMENT OF
DESIGN + CONSTRUCTION**

30-30 Thomson Avenue, 3rd Floor
Long Island City, New York 11101

Date: 3/6/2015

A5-3

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- Attachments**
1. New York City Department of Environmental Protection Limitations for Effluent to Storm-Sanitary or Combined Sewers Parameters
 2. Applicable Regulations
 3. Definitions
 4. Phase II Subsurface Corridor Investigation Report

ITEM 8.01 C1 HANDLING, TRANSPORTING AND DISPOSAL OF NON-HAZARDOUS CONTAMINATED SOILS

8.01 C1.1 WORK TO INCLUDE

General: This work shall consist of the handling, transportation and disposal of non-hazardous contaminated soils. The materials covered by this specification are soils that are contaminated with petroleum or chemical products but cannot be classified as hazardous waste. For the purpose of this specification, soil shall be defined as any material excavated below the pavement and base for pavement.

Non-hazardous contaminated soils are defined as soils exhibiting one or more of the following characteristics:

- ◆ Elevated Photo-Ionization Detector (PID) readings, subsequently confirmed by lab analysis
- ◆ Visual evidence of contamination
- ◆ Petroleum and/or chemical odors
- ◆ Soils that have been documented as contaminated in previous environmental reports

Non-hazardous contaminated soils must be stockpiled at an off-site approved location or secured on-site by the Contractor, meeting all required Federal, State and Local stipulations. Sampling and laboratory analysis must be conducted to determine if the soils are hazardous, unless the alternative procedure as defined under subsection 8.01 C1.1 A.5 has been agreed upon by treatment facilities. Contaminated soils determined to be non-hazardous shall be handled in accordance with the specifications herein for Item 8.01 C1. Contaminated soils determined to be hazardous shall be handled in accordance with the specifications for Item 8.01 H – Handling, Transporting and Disposal of Hazardous Soils.

The Contractor shall retain the services of an independent Environmental Consultant, as specified under Item 8.01 S – Health and Safety, to oversee the work required under this Item.

Non-hazardous soils shall be delivered to the disposal or treatment facility within thirty (30) calendar days after excavation.

The Contractor shall conduct sampling and analysis of the impacted soils as specified under Item 8.01 C2 – Sampling and Testing of Contaminated/Potentially Hazardous Soils for Disposal Parameters. The laboratory results shall be forwarded to DDC Program Administration, Engineering Support Services (ESS) for review to determine if the soils will be handled and disposed of as contaminated regulated soils or hazardous waste. No other soils shall be sampled or tested without the DDC's approval or direction.

The Contractor shall ensure that all operations associated with the handling, sampling, loading, transportation, and disposal of non-hazardous contaminated soils are in compliance with all applicable Federal, State, and City statutes and regulations.

The Contractor shall document the excavation, handling, transportation and disposal of non-hazardous contaminated soils. The Contractor shall supply all equipment, material and labor required to conduct the specified work of this Item.

A. Material Handling Plan: Within forty-five (45) calendar days after award of Contract, the Contractor shall submit to the Program Administration, ESS for review, a Material Handling Plan (MHP). The MHP must be approved by the Program Administration, ESS, prior to the Contractor's commencement of work. The MHP shall, at a minimum, consist of:

1. The Contractor's procedures for identifying non-hazardous contaminated soils during excavation, including the specific model and manufacturer of intended organic vapor

monitoring equipment and calibration procedures to be used. It should also include the training and experience of the personnel who will operate the equipment.

2. The Contractor's procedures for safely handling non-hazardous contaminated soils. The procedures must include personnel safety and health as well as environmental protection considerations.
3. Name, address, New York State Department of Health's (DOH) Environmental Laboratories Accreditation Program (ELAP) status and telephone number of the proposed laboratory for analysis of representative soil samples. The ELAP for the intended analysis must approve the laboratory.
4. Identification of the Contractor's proposed waste transporter(s). This information shall include:
 - a. Name and Waste Transporter Permit Number
 - b. Address
 - c. Name of responsible contact for the hauler
 - d. Telephone number for the contact
 - e. Any and all necessary permit authorizations for each type of waste transported
 - f. Previous experience in performing the type of work specified herein
5. All staging/stockpiling areas (if stockpiling areas are intended and available), or alternate procedures that will be used. Alternate procedures may include, but are not limited to, agreements from the intended disposal or treatment facilities to accept boring data and/or analytical data previously obtained during the site characterization so that materials may be directly loaded into vehicles for shipment to the disposal facility.
6. A backup facility should the staging/stockpile areas become unavailable, insufficient in area or not be present by some other unforeseen difficulty.
7. Identification of the Contractor's two proposed Treatment Storage or Disposal (TSD) facilities for non-hazardous contaminated soils (primary and back-up) for final disposal of the soils. The primary TSD shall be an approved soil recycling/treatment facility. The backup facility may be a recycling/treatment facility or a New York State Department of Environmental Conservation (DEC) approved lined landfill or other facility approved by DEC to accept this material. The information required for each facility shall include:
 - a. Facility name and the State identification number
 - (1) Facility location
 - (2) Name of responsible contact for the facility
 - (3) Telephone number for contact
 - (4) Signed letter of agreement to accept waste as specified in this contract
 - (5) Unit of measure utilized at facility for costing purposes
 - b. A listing of all permits, licenses, letters of approval, and other authorizations to operate, which are currently held and valid for the proposed facility.
 - c. A listing of all permits, licenses, letters of approval, and other authorizations to operate which have been applied for by the proposed facility but not yet granted or issued.

- d. The Contractor shall specify and describe the disposal/containment unit(s) that the proposed facility will use to manage the waste. The Contractor shall identify the capacity available in the units and the capacity reserved for the subject waste.
 - e. The Contractor shall provide the date of the proposed facility's last compliance inspection.
 - f. A list of all active (unresolved) compliance orders (or agreements), enforcement notices, or notices of violations issued to the proposed facility shall be provided. The source and nature of the cause of violation shall be stated, if known.
8. Description of all sampling and field/laboratory analyses that will be needed to obtain disposal facility approval.

8.01 C1.2 MATERIALS

- A. Containers shall be as required in the United State Department of Transportation (DOT) regulations.
- B. Polyethylene to be placed under (20 mil. thickness minimum) and over (10 mil. thickness minimum) soil piles.
- C. The Contractor shall assure that the waste hauler's appropriate choice of vehicles and operating practices shall prevent spillage or leakage of contaminated material from occurring en route.
- D. The Contractor shall provide, install and maintain any temporary loading facilities on site as required until completion of material handling activities. The location and design of any facilities shall be included in the MHP and be approved by the Program Administration, ESS.

8.01 C1.3 CONSTRUCTION DETAILS

A. Material Handling

1. Immediately after excavation of non-hazardous contaminated soil the Contractor shall:
 - a. Load material directly onto trucks/tankers/roll offs for disposal off site; or
 - b. If interim stockpiling is required, place on a minimum of 20 mil. or equivalent plastic ground cloth and cover by minimum of 10 mil. polyethylene sheeting or equivalent to protect against leaching or runoff of contaminants into groundwater or stormwater. Weight or secure the sheeting by appropriate means and seal seams as approved by the DDC to prevent tearing or removal by weather. Grade surrounding surface to provide for positive drainage away from pile. Stockpile shall not exceed 100 cubic yards.
2. Institute appropriate procedures and security measures to ensure the protection of site personnel and the public from contaminated materials as described in the approved MHP and Item 8.01 S - Health and Safety.
3. Any soil encountered that appears to contain unknown contaminants (based on visual, odor, or other observation), or that vary substantially from the material originally identified must be segregated in stockpiles and the independent Environmental Consultant promptly notified. Construct stockpiles to the same requirements as stated in subsection A.1.b above.

4. Provide any dewatering that is necessary to complete the work. Contaminated water shall be disposed of in accordance with Item 8.01 W1 – Removal, Treatment and Discharge/Disposal of Contaminated Water.
5. Provide and operate field organic vapor test equipment, a PID or a flame ionization detector (FID), to detect general organic vapor levels at intervals of approximately fifty (50) cubic yards of soil excavated, when visual or odor observations indicate the material may substantially differ from the soil previously excavated and/or as directed by the independent Environmental Consultant.

B. Off-Site Transportation to Disposal or Treatment Facility

1. General

- a. The Contractor shall furnish all labor, equipment, supplies and incidental costs required to transport contaminated material from the work area to the off-site disposal or treatment facility, and any other items and services required for transporting contaminated material for disposal at an off-site facility.
- b. The Contractor shall submit the name and location of the facility where an off-site scale is located. The Contractor shall also submit a plan to the DDC for review outlining procedures on controlling trucks leaving the work site and en-route to the off-site scale. The Contractor shall be responsible for tracking all material/vehicles from the site to the off-site scale.
- c. The Contractor shall provide to the DDC certified tare and gross weight slips for each load received at the accepted facility which shall be attached to each returned manifest.
- d. The Contractor shall coordinate the schedule for truck arrival and material deliveries at the job site to meet the approved project schedule.
- e. The Contractor shall inspect all vehicles leaving the project site to ensure that contaminated soils adhering to the wheels or undercarriage are removed prior to the vehicle leaving the site.
- f. The Contractor shall obtain letters of commitment from the waste haulers and the treatment, disposal or recovery facility to haul and accept shipments. The letter shall indicate agreement to handle and accept the specified estimated quantities and types of material during the time period specified in the project schedule and any time extension as deemed necessary.
- g. **The Program Administration, ESS shall review and approve waste profiles before transportation to the TSD facility.**

2. Hauling

- a. The Contractor shall coordinate manifesting, placarding of shipments, and vehicle decontamination. All quantities shall also be measured and recorded upon arrival at the disposal or treatment facility. If any deviation between the two records occurs, the matter is to be reported immediately to the DDC and to be resolved by the Contractor to the satisfaction of the DDC.
- b. The Contractor shall be held responsible, at its own cost for any and all actions necessary to remedy situations involving material spilled in transit or mud and dust tracked off-site.

- c. The Contractor shall ensure that trucks are protected against contamination by properly covering and lining them with compatible material (such as polyethylene) or by decontaminating them prior to and between acceptances of loads.
 - d. The Contractor shall be responsible for inspecting the access routes for road conditions, overhead clearance, and weight restrictions.
 - e. The Contractor shall only use the transporter(s) identified in the MHP for the performance of work. Any use of substitute or additional transporters must have previous written approval from the Program Administration, ESS at no additional cost to the City.
 - f. The Contractor shall develop, document, and implement a policy for accident prevention.
 - g. The Contractor shall not combine contaminated materials from other projects with material from this project.
 - h. No material shall be transported until approved by the DDC.
3. Off-Site Disposal
- a. The Contractor shall use only the facility(ies) identified in the MPH for the performance of the work. Substitutions or additions shall not be permitted without prior written approval from the Program Administration, ESS, and if approved shall be at no extra cost to the City.
 - b. The Contractor shall be responsible for acceptance of the materials at an approved facility, for ensuring that the facility is properly permitted to accept the stated materials, and that the facility provides the stated treatment and/or disposal services.
 - c. The DDC reserves the right to contact and visit the disposal or treatment facility and regulatory agencies to verify the agreement to accept the stated materials and to verify any other information provided.
 - d. In the event that the identified and approved facility ceases to accept the stated materials or the facility ceases operations, it is the Contractor's responsibility to locate an alternate approved and permitted facility(ies) for accepting materials. The alternate facility(ies) must be approved in writing by the DDC in the same manner and with the same requirements as for the original facility(ies). This shall be done at no extra cost or delay to the City.
 - e. The Contractor shall obtain manifest forms, and complete the shipment manifest records required by the appropriate regulatory agencies for verifying the material and quantity of each load in unit of volume and weight. Copies of each manifest shall be submitted to the DDC within four (4) business days following shipment, and within three (3) business days after notification of receipt of the facility. Any manifest discrepancies shall be reported immediately to the DDC and be resolved by the Contractor to the satisfaction of the DDC.
4. Equipment and Vehicle Decontamination
- a. The Contractor shall design and construct a portable decontamination station to be used to decontaminate equipment and vehicles exiting from the exclusion zone. The cost for this work will be paid under Item 8.01 S - Health and Safety.

- b. Water generated during the decontamination process shall be disposed of in accordance with Item 8.01 W1 – Removal, Treatment and Discharge/Disposal of Contaminated Water.

8.01 C1.4 METHOD OF MEASUREMENT

Quantities for non-hazardous contaminated soils shall be measured in tons. The tonnage will be determined by off-site truck scales, as per Subsection 8.01 C1.3.B1, that are capable of generating load tickets.

8.01 C1.5 PRICE TO COVER

- A. The unit bid price bid per ton for Item 8.01 C1 shall include the cost of furnishing all labor, materials, equipment, plan, and insurance for excavation, handling, transportation, disposal, documentation, fees, permits, loading, stockpiling, hauling, and any other incidentals necessary to complete all the work as specified herein for handling, transporting, and disposal of non-hazardous contaminated soil.
- B. Final disposal of hazardous soil shall be paid for under Item 8.01 H – Handling, Transporting and Disposal of Hazardous Soils. Disposal of decontamination water shall be paid for under Item 8.01 W1 – Removal, Treatment and Discharge/Disposal of Contaminated Water.
- C. Backfill will be paid for under its respective item as specified in the contract document.
- D. The independent Environmental Consultant shall be paid under Item 8.01 S – Health and Safety.

Payment will be made under:

| <u>ITEM NUMBER</u> | <u>ITEM</u> | <u>PAYMENT UNIT</u> |
|--------------------|---|---------------------|
| 8.01 C1 | Handling, Transporting, and Disposal of Non-Hazardous Contaminated Soil | Tons |

ITEM 8.01 C2 SAMPLING AND TESTING OF CONTAMINATED/ POTENTIALLY HAZARDOUS SOIL FOR DISPOSAL PARAMETERS

8.01 C2.1 WORK TO INCLUDE

A. Description

The work shall consist of collecting and analyzing representative soil samples for parameters typically requested by the disposal facilities.

B. Sampling and Laboratory Analysis

1. At least thirty (30) days prior to the commencement of work, the Contractor's independent Environmental Consultant must submit a Soil Sampling Plan/Field Sampling Plan (SSP/FSP) to the Program Administration, Engineering Support Services (ESS) for review and approval. The plan shall include the name, address, DOH's ELAP status, and telephone numbers of the proposed laboratory. The plan shall also include training and experience of the personnel who will collect the samples.
2. The Contractor shall sample and analyze representative samples of the contaminated/potentially hazardous soils. For stockpiled soils, the Contractor shall collect and analyze one (1) composite sample per 500 cubic yards or fraction thereof. Each composite sample shall consist of a minimum of five (5) grab samples collected from greater than two (2) feet below the soil surface. For drummed soil, the Contractor shall collect one (1) composite sample per (ten) 10 drums or fraction thereof. Each composite sample shall consist of a grab sample from each of the ten (10) drums or fraction thereof. Each composite sample shall be analyzed for Resource Conservation and Recovery Act (RCRA) hazardous waste characteristics (Ignitability, Reactivity, Corrosivity), Full Toxicity Characteristic Leaching Procedure (TCLP) (including RCRA metals, volatile Organic Compounds (VOCs), Semi-Volatile Organic Compounds (SVOCs), pesticides, herbicides), Total Petroleum Hydrocarbons (TPH) and Polychlorinated Biphenyls (PCBs). All samples collected should be analyzed on a five (5) calendar days turn around time and analytical results must be submitted to Program Administration, ESS upon receipt of the analytical results.
3. All sampling shall be conducted by a person trained in sampling protocols using standard accepted practices for obtaining representative samples.
4. The Contractor must also contact the disposal facility where the waste will be sent for permanent disposal, and arrange to collect any additional samples required by the facility. The cost associated with additional sampling and testing shall be included in the bid price of this Item.
5. The quality of the data from the sampling program is the Contractor's responsibility. The Contractor must furnish all qualified personnel, equipment and instruments necessary to carry out the sampling. Unless directed otherwise, all sampling procedures must follow the DEC sampling guidelines and protocols.
6. All sample containers shall be marked and identified with legible sample labels which shall indicate the project name, sample location and/or container, the sample number, the date and time of sampling, preservatives utilized and other information that may be useful in determining the character of the sample. Chain-of-custody shall be tracked from laboratory issuance of sample containers through laboratory receipt of the samples.

7. The Contractor shall maintain a bound sample logbook. The Contractor shall provide DDC access to it at all times and shall turn it over to the DDC in good condition at the completion of the work. The following information, as a minimum shall be recorded to the log:
 1. Sample identification number
 2. Sample location
 3. Field observation
 4. Sample type
 5. Analyses
 6. Date/time of collection
 7. Collector's name
 8. Sample procedures and equipment utilized
 9. Date sent to laboratory and name of laboratory
8. The City reserves the right to direct the Contractor to conduct alternative sampling in lieu of the parameters described in subsection B2, if the situation warrants. The substitute sampling parameters shall be of equal or lesser monetary value than those described in subsection B2, as determined by industry laboratory pricing standards.
9. Only dedicated sampling equipment may be used to collect these samples. All equipment involved in field sampling must be decontaminated before being brought to the sampling location, and must be properly disposed after use.
10. Soils exceeding any of the hazardous characteristic criteria meet the legal definition of hazardous soils (rather than non-hazardous contaminated soils) and shall be transported or disposed of under Item 8.01 H – Handling, Transporting and Disposal of Hazardous Soils. All analyses must be done by a laboratory that has received approval from the ELAP for the methods to be used. The Contractor must specify the laboratory in the MHP.

8.01 C2.2 METHOD OF MEASUREMENT

Quantities for samples shall be measured as the number of sets of samples that are tested. A set shall be defined as one (1) composite sample analyzed for the full range of parameters as specified in subsection B2.

8.01 C2.3 PRICE TO COVER

The unit price bid per set for Item 8.01 C2 shall include the cost of furnishing all labor, materials, equipment, plan, and insurance necessary for sampling, handling, transporting, testing, documentation, fees, permits and any other incidentals necessary to complete the work as specified herein for sampling and testing of contaminated/potentially hazardous soil.

Payment will be made under:

| ITEM NUMBER | ITEM | PAYMENT UNIT |
|-------------|---|--------------|
| 8.01 C2 | Sampling and Testing of Contaminated/ Potentially Hazardous Soil for Disposal Parameters | Set |

ITEM 8.01 H HANDLING, TRANSPORTING, AND DISPOSAL OF HAZARDOUS SOILS

8.01 H.1 WORK TO INCLUDE

General: This work shall consist of the handling, transportation and disposal of soils or materials that are listed as hazardous wastes or exhibit any of the characteristics of a hazardous waste, namely ignitability, corrosivity, reactivity, and toxicity, as defined in 6 NYCRR Part 371, Section 371.3 and 40 CFR Section 261. For the purpose of this specification, soils shall be defined as any materials excavated below the pavement and base for pavement.

Contaminated soils determined to be hazardous under Item 8.01 C2 shall be handled, transported, and disposed of under Item 8.01 H in accordance with the specifications herein.

The independent Environmental Consultant retained by the Contractor, as specified under Item 8.01 S – Health and Safety, shall conduct sampling and analysis of above soils to determine which soils are hazardous.

All work under Item 8.01 H shall be performed under the direct supervision of the Contractor's Environmental Consultant, as approved by the Program Administration, Engineering Support Services (ESS).

The Contractor shall ensure that all operations associated with the handling, sampling, loading, transportation, and disposal of hazardous materials are in compliance with the applicable Federal, State, and Local statutes and regulations.

The Contractor shall document the excavation, handling, sampling, and testing, transportation and disposal of hazardous soils. The City shall be listed in the disposal documents as the waste generator.

The Contractor shall supply all equipment, material and labor required to conduct the specified work of this section.

The Contractor shall ensure that all operations associated with the handling, sampling, loading, transportation and disposal of hazardous soils are conducted in a manner to protect site personnel, the public and the environment, in accordance with all applicable Federal, State, and Local laws and regulations.

The Contractor shall decontaminate all equipment prior to its removal from the exclusion zone and/or following contact with hazardous materials, as detailed in Item 8.01 S - Health and Safety. Water generated during the decontamination process shall be disposed of under Item 8.01 W1 – Removal, Treatment and Discharge/Disposal of Contaminated Water.

A. Material Handling Plan: Within forty-five (45) calendar days after award of Contract, the Contractor shall submit to the Program Administration, ESS for review, a Material Handling Plan (MHP). The MHP must be approved by the Program Administration, ESS, prior to the Contractor's commencement of work. The MHP shall, at a minimum, consist of:

1. The Contractor's procedures for identifying contaminated/potentially hazardous soils during excavation, including instrumentation and calibration procedures to be used.
2. The Contractor's procedures for safely handling hazardous soils or soils which have not yet been tested but are believed to be potentially hazardous.
3. Identification of the Contractor's proposed waste transporter(s). This information shall include:
 - a. Name and waste transporter permit number
 - b. Address

- c. Name of responsible contact for the hauler
 - d. Telephone number for the contact
 - e. Any and all necessary permit authorizations for each type of waste transported
 - f. Previous experience in performing the type of work specified herein
4. All staging/stockpiling areas (if stockpiling areas are intended and available), or alternate procedures that will be used. Alternate procedures could include, but are not limited to, agreements from the intended disposal or treatment facilities to accept boring data and/or analytical data previously obtained during the site characterization so that materials may be directly loaded into vehicles for shipment to the disposal facility or the use of off-site stockpiling locations approved by the DEC.
 5. A backup facility, should the staging/stockpile areas become unavailable, insufficient in area or not be present by some other unforeseen difficulty.
 6. Identification of the Contractor's two proposed United State Environmental Protection Agency (EPA) or DEC approved RCRA TSD facilities for hazardous soils.
 7. The Contractor shall submit the following information prior to any transportation of soils regarding the temporary and final off-site TSD or facilities where it is proposing to take hazardous soils. The expense of furnishing all information will be included in the Contractor's bid price:
 - a. General Information
 - (1) Facility name and the EPA identification number
 - (2) Facility location
 - (3) Name of responsible contact for the facility
 - (4) Telephone number for contact
 - (5) Signed letter of agreement to accept waste as specified in this contract
 - (6) Signed letter of agreement with a TSD for disposal of waste that may not be land-disposed
 - (7) Unit of measure utilized at each facility for costing purposes
 - b. A listing of all permits, licenses, letters of approval, and other authorizations to operate, which are currently held and valid for the proposed facility as they pertain to receipt and management of wastes derived from this Contract.
 - c. A listing of all permits, licenses, letters of approval, and other authorizations to operate which have been applied for by the proposed facility.
 - d. The Contractor shall specify and describe the disposal/containment unit(s) that the proposed facility will use to manage the waste. The Contractor shall identify the capacity available in the units and the capacity reserved for the subject waste.
 - e. The Contractor shall provide the date of the proposed facility(ies) last compliance inspection under RCRA.
 - f. A list of all active (unresolved) compliance orders, agreements, enforcement notices or notices of violations issued to the proposed facility shall be approved. The source and nature of the cause of violation shall be stated, if known.
 8. Description of all sampling and analyses that will be needed to obtain disposal facility approval.

8.01 H.2 MATERIALS

- A. Containers shall be watertight as required in the DOT regulations and must meet all applicable regulations including but not limited to those in Attachment 2.
- B. Polyethylene (20 mil. thickness minimum) to be placed under and (10 mil. thickness minimum) over soil piles. If soils are placed in drums, polyethylene must be placed over the drums.

8.01 H1.3 CONSTRUCTION DETAILS

A. Material Handling

- 1. The Contractor shall institute procedures to protect site personnel and the public from the non-hazardous and hazardous materials as described in Section 8.01 S - Health and Safety.
- 2. The Contractor shall handle hazardous soil as approved in the MHP.
- 3. Stockpiled materials at the temporary TSD facility shall be handled according to the facility requirements but at a minimum: shall be drummed or placed on and covered with polyethylene to protect against erosion and leaching into surrounding soils, the stockpile area shall be graded for positive drainage away from the pile, and shall be labeled while being held for sampling prior to permanent disposal.
- 4. Provide any dewatering that is necessary to complete the work. Water shall be disposed of in accordance with Item 8.01 W1 – Removal, Treatment and Discharge/Disposal of Contaminated Water.

B. Off-Site Transportation and Disposal

- 1. The Contractor shall furnish all labor, equipment and supplies required to transport hazardous materials from the work area to the off-site TSD facility(ies) and to acquire any other items and services required for transporting hazardous materials for storage and/or disposal at an approved off-site facility.
- 2. Weight Measurement
 - a. The Contractor shall submit the name and location of the facility where an off-site scale is located. The Contractor shall also submit a plan to the DDC for review outlining procedures on controlling trucks leaving the work site and on-route to the off-site scale. The Contractor shall be responsible for tracking all materials/vehicles from the site to the off-site scale.
 - b. The Contractor shall provide to the DDC certified tare and gross weight slips for each load received at the accepted facility which shall be attached to each returned manifest.
- 3. General
 - a. Manifests: The Contractor shall organize and maintain the material shipment records/manifests required by law.
 - b. The Contractor shall coordinate the schedule for truck arrival and material deliveries at the job site to meet the approved project schedule. The schedule shall be compatible with the availability of equipment and personnel for material handling at the job site.

- c. The Contractor shall inspect all vehicles leaving the project site to ensure that hazardous soils adhering to the wheels or under carriage are removed prior to the vehicle leaving the site.
 - d. The Contractor shall obtain letters of commitment from the waste haulers and the TSD facility to haul and accept shipments. The letter shall indicate agreement to handle and accept the specified estimated quantities and types of material during the time period specified in the project schedule and any time extension as deemed as necessary.
4. Hauling
- a. The Contractor shall not deliver waste to any facility other than the TSD facility(ies) listed on the shipping manifest.
 - b. The Contractor shall coordinate manifesting, placarding, of shipments, and vehicle decontamination. All quantities shall also be measured and recorded upon arrival at the TSD facility. If any deviation between the two records occurs, the matter is to be reported immediately to the DDC and to be resolved by the Contractor to the satisfaction of the DDC.
 - c. The Contractor shall be held responsible, at its own expense, for any and all actions necessary to remedy situations involving material spilled in transit or mud and dust tracked off-site.
 - d. The Contractor shall ensure that trucks are protected against contamination by properly covering and lining them with compatible material (such as polyethylene) or by decontaminating them prior to any use other than hauling hazardous materials.
 - e. The Contractor shall be responsible for inspecting the access routes for road conditions, overhead clearance, and weight restrictions.
 - f. The Contractor shall only use the transporter(s) identified in the MHP for the performance of work. Only a transporter with a current Part 364 Waste Transporter Permit from the DEC may transport this material. Any use of substitute or additional transporters must have previous written approval from the DDC at no additional cost to the City.
 - g. The Contractor shall develop, document, and implement a policy for accident prevention.
 - h. The Contractor shall not combine hazardous materials from other projects with material from this project.
 - i. **The Contractor shall obtain for the City an EPA hazardous waste generator identification number and a representative of Program Administration, ESS will review and sign the manifest as the generator.**
 - j. No materials shall be transported until approved by the DDC.
5. Off-Site Disposal
- a. The Contractor shall be responsible for acceptance of the materials at an approved TSD facility, for ensuring that the facility is properly permitted to accept the stated materials, and that the facility provides the stated storage and/or disposal services.
 - b. In the event that the identified and approved facility ceases to accept the stated materials or the facility ceases operations, it is the Contractor's responsibility to

locate an alternate approved and permitted facility(ies) for accepting materials. The Contractor is responsible for making the necessary arrangements to utilize the facility(ies), and the alternate facility(ies) must be approved in writing by the DDC in the same manner and with the same requirements as for the original facility(ies). This shall be done with no extra cost or delay to the City.

- c. The Contractor shall submit all results and weights to the DDC.
- d. **The Contractor is responsible to pay all fees associated with the generation and disposal of all excavated hazardous waste. These fees include, but are not limited to, the New York State Department of Finance and Taxation (DFT) quarterly fees for hazardous waste and the New York State DEC annual hazardous waste regulatory fee program. The Contractor shall submit a copy of proof of payment to the DDC and Program Administration, ESS.**

6. Equipment and Vehicle Decontamination

The Contractor shall design and construct a portable decontamination station to be used to decontaminate equipment and vehicles exiting from the exclusion zone. The cost for this work shall be paid under Item 8.01 S - Health and Safety. Disposal of decontamination liquids is described under Item 8.01 W1 - Removal, Treatment and Discharge/Disposal of Contaminated Water.

7. Record Keeping

The Contractor shall obtain manifest forms, and complete the shipment manifest records required by the appropriate regulatory agencies for verifying the material and quantity of each load in unit of volume and weight. Copies of each manifest shall be submitted to the DDC within four (4) business days following shipment, and within three (3) business days after notification of receipt of the facility. Any manifest discrepancies shall be reported immediately to the DDC and be resolved by the Contractor to the satisfaction of the DDC.

8.01 H.4 METHOD MEASUREMENT

Quantities for hazardous soil shall be measured in tons satisfactorily delivered to the treatment, storage or disposal facility. The tonnage will be determined by off-site truck scales, as per subsection 8.01 H1.3.B.2, that are capable of generating load tickets.

8.01 H.5 PRICE TO COVER

- A. The unit price bid per ton for Item 8.01 H shall include the cost of furnishing all labor, materials, equipment, plan, and insurance for excavation, handling, transportation, disposal, documentation, permits, fees, taxes, stockpiling, hauling, and any other incidentals necessary to complete the work as specified herein for handling, transporting and disposal of hazardous soils.
- B. Final disposal of non-hazardous materials shall be paid for under Item 8.01 C1 - Handling, Transporting and Disposal of Non-Hazardous Soils. Disposal of decontamination water shall be paid under Item 8.01 W1 - Removal, Treatment and Discharge/Disposal of Contaminated Water.
- C. The independent Environmental Consultant shall be paid under Item 8.01 S - Health and Safety.
- D. Backfill will be paid for under its respective item.

Payment will be made under:

| <u>ITEM NUMBER</u> | <u>ITEM</u> | <u>PAYMENT UNIT</u> |
|--------------------|---|---------------------|
| 8.01 H | Handling, Transporting, and Disposal of Hazardous Soils | Tons |

ITEM 8.01 S HEALTH AND SAFETY

8.01 S.1 WORK TO INCLUDE

Health and Safety Requirements

A. Scope of Work

It is the Contractor's responsibility to stage and conduct his work in a safe manner. The Contractor shall implement a Health and Safety Plan (HASP) for contaminated/hazardous soil intrusive activities as set forth in Occupational Safety and Health Administration (OSHA) Standards 1910.120 and 1926.650-652. The Contractor shall ensure that all workers have at a minimum hazard awareness training. The Contractor shall segregate contaminated work area in secured exclusion zones. These zones shall limit access to Contractor personnel specifically trained to enter the work area. The exclusion zone shall be set up to secure the area from the public and untrained personnel. The project health and safety program shall apply to all construction personnel including persons entering the work area. In addition, the Contractor shall protect the public from on-site hazards, including subsurface contaminants associated with on-site activities. The HASP shall be signed off by a Certified Industrial Hygienist and reviewed by Program Administration, Engineering Support Services (ESS).

Work shall include, but not be limited to:

1. Implementation of a baseline medical program.
2. Providing safety equipment and protective clothing for site personnel, including maintenance of equipment on a daily basis; replacement of disposable equipment as required; decontamination of clothing, equipment and personnel; and providing all other health and safety measures.
3. Providing, installing, operating and maintaining on-site emergency medical first aid equipment as specified in this section for which payment is not provided under other pay items in this Contract.
4. Providing, installing, operating, maintaining and decommissioning all equipment and personnel decontamination facilities specified within this section, including, but not limited to, the decontamination pad, decontamination water supply, decontamination water collection equipment and all other items and services required for the implementation of the health and safety requirements for which pay items are not provided elsewhere in this Contract.
5. Provide the minimum health and safety requirements for excavation activities within the limits of this Contract.
6. Implement and enforce a HASP: The HASP as presented in these specifications is dynamic with provisions for change to reflect new information, new practices or procedures, changing site environmental conditions or other situations which may affect site workers and the public. The HASP will also address measures for community protection, accident prevention, personnel protection, emergency response/contingency planning, air monitoring, odor control and hazardous chemicals expected on site. Providing a Confined Space Entry Program as defined in the Occupational Safety and Health Act, Confined Space Entry Standard, 29 CFR 1910.146.

B. Environmental Consulting Services

The Contractor shall retain an independent Environmental Consultant to obtain all permits and perform all field screening, air monitoring, community air monitoring, soil sampling, and health and safety services. The independent Environmental Consultant shall at a minimum provide documentation to the Program Administration, ESS demonstrating the minimum requirements as set forth below:

1. The independent Environmental Consultant project supervisor on site and other designated key personnel shall have a minimum of three (3) years experience in the environmental field dealing with issues associated with contaminated soils. Such experience shall include oversight on environmental, specifically volatile organic compound and dust monitoring services as a routine part of its daily operations.
2. The independent Environmental Consultant must be experienced in work of this nature, size, and complexity and must have previous experience in working with the DEC.
3. The independent Environmental Consultant shall furnish a project listing identifying the location, nature of services provided, owner, owner's contact, contact's telephone number, project duration and value for at least five (5) projects within the last three (3) years.
4. If conditions within the exclusion zone are deemed hazardous, then the Contractor and its independent Environmental Consultant shall ensure that all personnel working within identified exclusion zones and/or involved (direct contact) with the handling, storage or transport of hazardous and contaminated materials shall have completed a minimum of forty (40) hours of Health and Safety Training on Hazardous Waste Sites in accordance with 29 CFR 1910.120(e). The training program shall be conducted by a qualified safety instructor. If conditions in the exclusion zone are deemed to be non-hazardous, the independent Environmental Consultant shall provide site specific training.
5. The Contractor shall ensure that on-site management and supervisors directly responsible for or who supervise employees engaged in hazardous waste operations shall receive the training specified in above and at least eight (8) additional hours of specialized training on managing such operations at the time of job assignment.

C. Submittals

1. The Contractor shall submit, within forty-five (45) calendar days after the contract award, a written HASP as specified herein, to Program Administration, ESS for review and comment. The Contractor shall make all necessary revisions required by Program Administration, ESS and resubmit the HASP to the Program Administration, ESS for acceptance. Start-up work for the project will not be permitted until written acceptance has been issued by the Program Administration, ESS.
2. Daily safety logs shall be maintained by the Contractor and shall be submitted to the DDC either on request or on completion of the work. Training logs shall be maintained by the Contractor and submitted to the DDC either on request or on completion of the work. Daily logs on air monitoring during excavation activities shall be prepared and maintained by the Contractor and submitted to the DDC either on request or upon completion of the work.
3. A closeout report shall be submitted by the Contractor to the DDC upon completion of the work within the defined exclusion zones. This report shall summarize the daily safety and monitoring logs and provides an overview of the Contractor's performance regarding environmental and safety issues. The report shall carefully document all areas where contamination has been found including pictures, addresses of locations, and potential sources.

4. Medical Surveillance Examinations: The Contractor shall submit to the DDC the name, office address and telephone number of the medical consultant utilized. Evidence of baseline medical examinations together with the evidence of the ability to wear National Institute for Occupational Safety and Health (NIOSH) approved respirators (as specified in American National Standards Institute (ANSI) Z88.6) shall be provided to the DDC for all construction personnel who are to enter the exclusion zones.
5. Accident Reports: All accidents, spills, or other health and safety incidents shall be reported to the DDC.

D. Health and Safety Plan

The HASP shall comply with OSHA regulations 29 CFR 1910.120/1926.65. This document shall at a minimum contain the following:

1. Description of work to be performed
2. Site description
3. Key personnel
4. Worker training procedures
5. Work practices and segregation of work area
6. Hazardous substance evaluation
7. Hazard assessment
8. Personal and community air monitoring procedures and action levels
9. Personal protective equipment
10. Decontamination procedures
11. Safety rules
12. Emergency procedures
13. Spill control, dust control, vapor/odor suppression procedures
14. Identification of the nearest hospital and route
15. Confined space procedures
16. Excavation safety procedures

8.01 S.2 MEASUREMENT

Health and Safety Requirements

- A. 25% of the lump sum price will be paid when the following items are implemented or mobilized:
 - Medical surveillance program
 - Health and safety training
 - Health and safety plan
 - Environmental and personnel monitoring
 - Instrumentation
 - Spill control
 - Dust control
 - Personnel and equipment decontamination facilities
 - Personnel protective clothing
 - Communications
 - Mobilization
- B. 50% will be paid in proportional monthly amounts over the period of work.
- C. 25% will be paid when the operation is demobilized and removed from the project site.

8.01 S.3 PRICE TO COVER

Health and Safety Requirements

The lump sum price bid for the health and safety requirements shall include all labor, materials, equipment, and insurance necessary to complete the work in accordance with these specifications. The price bid shall include, but not be limited to, the following:

- A. Providing training, safety personnel, air monitoring and medical examinations as specified.
- B. Providing safety equipment and protective clothing for site personnel, including maintenance of equipment on a daily basis; replacement of disposable equipment as required; decontamination of clothing, equipment and personnel; and all other health and safety activities or costs not paid for under other pay items in this Contract.
- C. Providing, installing, operating and maintaining on-site emergency medical and first aid equipment. This includes all furnishings, equipment, supplies and maintenance of all medical equipment, and all other health and safety items and services for which payment is not provided under other pay items in this Contract.
- D. Providing, installing, operating, maintaining, and decommissioning all personnel and equipment decontamination facilities, including decontamination pad, decontamination water supply, and all other items and services required for the implementation of the health and safety requirements for which pay items are not provided elsewhere in this Contract. Vehicle decontamination pads shall be included in the price of this item. Disposal of decontamination fluid shall be paid for under Item 8.01 W1 – Removal, Treatment and Discharge/Disposal of Contaminated Water.

E. Spill Control

- 1. Payment shall account for furnishing, installing, and maintaining all spill control equipment and facilities. Payment will include equipment and personnel to perform emergency measures required to contain any spillage and to remove spilled materials and soils or liquids that become contaminated due to spillage during work within the exclusion zones and handling of excavated soils and liquids from these areas. This collected spill material will be properly disposed of.
- 2. Payment under this item shall not include testing, handling, transportation or disposal of petroleum-contaminated/potentially hazardous soils excavated during construction. The price for this work will be paid for under Items 8.01 C1 – Handling, Transporting and Disposal of Non-Hazardous Contaminated Soils, 8.01 C2 – Sampling and Testing of Contaminated/Potentially Hazardous Soil for Disposal Parameters or 8.01 H – Handling, Transporting and Disposal of Hazardous Soils, as appropriate.

F. Dust Control

Payment shall account for furnishing, installing, and maintaining dust control equipment and facilities to be used whenever applicable dust levels are exceeded. Payment will include all necessary labor, equipment, clean water, foam, and all other materials required by the Dust Control Plan. The DOH Community Air Monitoring Plan (CAMP) may be used as guidance.

G. Vapor/Odor Suppression

Payment shall account for furnishing, installing and maintaining vapor/odor control equipment and facilities to be used whenever organic vapor monitoring or the presence of odors indicates that vapor suppression is required to protect workers or the public. Payment will include all

necessary labor, equipment, clean water, foam and all other materials required by the Vapor/Odor Suppression Plan.

H. Mobilization/Demobilization

1. Mobilization

Payment shall include but not be limited to:

- a. All work required to furnish, install and maintain all signs, fencing, support zone facilities, parking areas and all temporary utilities;
- b. All work required to furnish, install, and maintain an office space with phone and utilities for health and safety personnel;
- c. All work required for complete preparation of lay down area for roll-off containers, including sampling, and any required fencing;
- d. All direct invoiced cost from bonding companies and government agencies for permits and costs of insurance; and
- e. All other items and services required for mobilization and site preparation.

2. Demobilization

Payment shall include but not be limited to: All work required to sample the area; remove from the site all equipment, temporary utilities and supporting facilities; performance of necessary decontamination and repairs; disposal of disposable equipment and protective gear and other items and services required for complete demobilization.

Payment will be made under:

| <u>ITEM NUMBER</u> | <u>ITEM</u> | <u>PAYMENT UNIT</u> |
|--------------------|-------------------|---------------------|
| 8.01 S | Health and Safety | Lump Sum |

ITEM 8.01 W1 REMOVAL, TREATMENT AND DISCHARGE/DISPOSAL OF CONTAMINATED WATER

8.01 W1.1 WORK TO INCLUDE

General: This work shall consist of the proper removal and disposal of all contaminated groundwater and decontamination water generated during construction operations. The Contractor shall be solely responsible for the proper disposal or discharge of all contaminated water generated at the job site. The Contractor will have the option of treating water on-site for discharge to the combined sanitary/storm sewer system or removing contaminated water for off-site disposal. The Contractor shall be responsible to choose a method compatible to the construction work and shall be compensated on a per day basis regardless of method employed. The Contractor will be compensated for only those days where the system is in full operation.

The Contractor shall retain a dewatering/water treatment Specialist (hereinafter the "Specialist") and laboratory as specified under Item 8.01 W2 – Sampling and Testing of Contaminated Water, to conduct any testing that may be required for disposal of impacted water.

The dewatering/water treatment Specialist is responsible to obtain all permits; perform all water sampling, testing; and provide ancillary services related to dewatering and water treatment. The Specialist shall at a minimum provide documentation to the Program Administration, Engineering Support Services (ESS) demonstrating the minimum requirements as set forth below:

1. The Specialist shall demonstrate that it has, at a minimum, three (3) years experience in the design of dewatering plans. The Specialist should demonstrate expertise dealing with issues associated with contaminated water. During that three (3) year period, the Specialist shall demonstrate that it provided dewatering and water treatment systems as a routine part of its daily operations.
2. The Specialist must be experienced in work of this nature, size, and complexity and must have previous experience in working with the DEC.
3. The Specialist shall furnish a project listing identifying the location, nature of services provided, owner, owner's contact, contact's telephone number, project duration and value for at least five (5) projects within the last three (3) years of a similar nature, size, and complexity to this one.
4. If conditions within the exclusion zone are deemed hazardous, then the Contractor and its independent Environmental Consultant shall ensure that all personnel working within identified exclusion zones and/or involved (direct contact) with the handling, storage or transport of hazardous and contaminated material shall have completed a minimum of forty (40) hours of Health and Safety Training on Hazardous Waste Sites in accordance with 29 CFR 1910.120(e). The training program shall be conducted by a qualified safety instructor. If conditions in the exclusion zone are deemed to be non-hazardous, the Specialist shall be responsible to provide site-specific training to its employees and other affected personnel.
5. The Contractor shall ensure that on-site management and supervisors directly responsible for or who supervise employees engaged in hazardous waste operations shall receive the training specified in above and at least eight (8) additional hours of specialized training on managing such operations at the time of job assignment.

The Contractor shall document all operations associated with the handling, sampling and disposal of contaminated water, and ensure that they are in compliance with applicable Federal, State and Local statutes and regulations.

The Contractor shall supply all labor, equipment, transport, plant, material, treatment, and other incidentals required to conduct the specified work of this section.

If water will be disposed of into the combined sanitary/storm sewer system, the Contractor shall ensure the Specialist treats the water to comply with the New York City Department of Environmental Protection (DEP) Sanitary/Combined and Storm Sewer Effluent Limit concentrations prior to discharge. The Contractor is responsible for providing settling or filtering tanks and any other apparatus required by DEP. Alternatively, the Contractor can provide a plan for transport and disposal at an off-site waste disposal facility.

Within forty-five (45) calendar days after award of Contract, the Contractor shall submit to the Program Administration, ESS for review, a Water Handling Plan (WHP). The WHP must be approved by the Program Administration, ESS, prior to the Contractor's commencement of work. The minimum requirements for the WHP are specified herein Item 8.01W 1.2, for each type of disposal (disposal into the combined sanitary/storm sewer or off-site disposal). The Contractor shall maintain a complete, up to date copy of the WHP on the job site at all times.

8.01 W1.2 CONSTRUCTION DETAILS

For each disposal method the Contractor proposes to utilize (disposal to combined sanitary/storm sewer or off-site disposal), the WHP shall include the information required in paragraphs A and B below, as appropriate.

A. On-site treatment and discharge into New York City combined sanitary/storm sewers.

1. Regulations: The Contractor shall comply with all applicable regulations. This includes but may not be limited to:
Title 15-New DEP Sewer Use Regulations.
2. Permits: The Contractor is solely responsible to obtain all necessary and appropriate Federal, State and Local permits and approvals. The Contractor will be responsible for performing all and any system pilot tests required for permit approval. This includes but may not be limited to:
 - a. Industrial waste approval for the New York City sewer system.
 - b. Groundwater discharge permit for the New York City sewer system (DEP Division of Sewer Regulation and Control), if discharge to sewer exceeds 10,000 gallons per day.
 - c. The Contractor shall comply with DEC State Pollutant Discharge Elimination System (SPDES) Permit Number GP-0-10-001, General Permit for Stormwater Discharges.
 - d. Long Island well point permit for Brooklyn and Queens sites, if well points are used for dewatering.
 - e. Wastewater quality control application, DEP.
3. The WHP for this portion of the work shall include at a minimum:

- a. Identification and design of Contractor's proposed treatment to assure that the water meets the DEP sewer use guidelines prior to discharge to the sewer, including identification of all materials, procedures, settling or filtering tanks, filters and other appurtenances proposed for treatment and disposal of contaminated water.
- b. The name, address and telephone number of the contact for the Contractor's proposed chemical laboratory, as well as the laboratory's certifications under Federal, State or non-governmental bodies.
- c. The name, address and telephone number of the contact for the Contractor's proposed independent Environmental Consultant.
- d. Copies of all submitted permit applications and approved permits the Contractor have received.

4. Materials

The Contractor shall supply all settling or filtering tanks, pumps, filters, treatment devices and other appurtenances for treatment, temporary storage and disposal of contaminated water. All equipment shall be suitable for the work described herein.

5. Execution

- a. The Contractor is solely responsible for disposal of all water, in accordance with all Federal, State and Local regulations.
- b. The Contractor is solely responsible for any treatment required to assure that water discharged into the sewer is in compliance with all permits and Federal, State and Local statutes and regulations.
- c. The Contractor is solely responsible for the quality of the water disposed of into the sewers.
- d. The Contractor is responsible for sampling and testing of water for the DEP Sanitary/Combined and Storm sewer Effluent Limit concentrations. The quality of the data is the Contractor's responsibility. Any sampling and testing shall be conducted and paid in accordance with Item 8.01 W2 – Sampling and Testing of Contaminated Water.
- e. The Contractor shall be responsible to maintain the discharge rate to the sewer such that all permit requirements are met, the capacity of the sewer is not exceeded and no surcharging occurs downstream due to the Contractor's actions. Dewatering by means of well points or deep wells will not be allowed in the Boroughs of Brooklyn or Queens where the rate of pumping exceeds forty-five (45) gallons per minute unless the appropriate permit has been secured from the DEC.
- f. Disposal of Treatment Media
 - (1) The Contractor shall be responsible for disposal or recycling of treatment media in accordance with all Federal, State and Local regulations.
 - (2) The Contractor shall provide the DDC with all relevant documentation concerning the disposal of treatment media, including manifests, bills of

loading, certificates of recycling or destruction and other applicable documentation.

- (3) **Disposal of treatment media shall not be considered as a separate pay item; instead it shall be considered as incidental work thereto and included in the unit price bid.**

B. Off-Site Disposal

1. Regulations: The Contractor shall conform to all applicable Federal, State and Local regulations pertaining to the transportation, storage and disposal of any hazardous and/or non-hazardous materials as listed in Attachment 2.
2. The following shall be submitted to the DDC prior to initiating any off-site disposal:
 - a.
 - (1) Name and waste transporter permit number
 - (2) Address
 - (3) Name of responsible contact for the hauler
 - (4) Any and all necessary permit authorizations for each type of waste transported
 - (5) Previous experience in performing the type of work specified herein
 - b. General information for each proposed treatment/disposal facility and at least one backup treatment/disposal facility
 - (1) Facility name and EPA identification number
 - (2) Facility location
 - (3) Name of responsible contact for the facility
 - (4) Telephone number for contact
 - (5) Unit of measure utilized at facility for costing purposes
 - c. A listing of all permits, licenses, letters of approval and other authorizations to operate, which are currently held and valid for the proposed facility as they pertain to receipt and management of the wastes derived from this Contract.
 - d. A listing of all permits, licenses, letters of approval and other authorizations to operate which have been applied for by the proposed facility but not yet granted or issued. Provide dates of application(s) submitted. Planned submittals shall also be noted.
 - e. The Contractor shall specify and describe the disposal/containment unit(s) that the proposed facility will use to manage the waste and provide dates of construction and beginning of use, if applicable. Drawings may be provided. The Contractor shall identify the capacity available in the units and the capacity reserved for the subject waste.
 - f. The Contractor shall provide the date of the proposed facility's last compliance inspection.

- g. A list of all active (unresolved) compliance orders, agreements, enforcement notices or notices of violations issued to the proposed facility shall be submitted. The source and nature of the cause of violation shall be stated, if known. If groundwater contamination is noted, details of the facility's groundwater monitoring program shall be provided.
- h. Description of all sampling and field/laboratory analyses that will be needed to obtain disposal facility approval.

3. Materials

All vessels for temporary storage and transport to an off-site disposal facility shall be as required in DOT regulations.

4. Execution

a. General

- (1) The Contractor shall organize and maintain the material shipment records/manifests required by Federal, State and Local law. The Contractor shall include all bills of lading, certificates of destruction, recycling or treatment and other applicable documents.
- (2) The Contractor shall coordinate the schedule for truck arrival and material deliveries at the job site to meet the approved project schedule. The schedule shall be compatible with the availability of equipment and personnel for material handling at the job site.
- (3) The Contractor shall inspect all vehicles leaving the project site to ensure that contaminated liquids are not spilling and are contained for transport.
- (4) The Contractor shall obtain letters of commitment from the waste haulers and the treatment, disposal or recovery facility to haul and accept shipment. The letter shall indicate agreement to handle and accept the specified estimated quantities and types of material during the time period specified in the project schedule and any time extension as deemed as necessary.
- (5) The Contractor shall verify the volume of each shipment of water from the site.
- (6) The Contractor is responsible for sampling and testing of water for off-site disposal. The quality of the data is the Contractor's responsibility. Any sampling and testing shall be conducted and paid in accordance with Item 8.01 W2 – Sampling and Testing of Contaminated Water.
- (7) The Contractor shall be responsible for any additional analyses required by the TSD facility, and for the acceptance of the water at an approved TSD facility.

b. Hauling

- (1) The Contractor shall not deliver waste to any facility other than the TSD facility(ies) listed on the shipping manifest.

- (2) The Contractor shall coordinate manifesting, placarding of shipments, and vehicle decontamination. All quantities shall also be measured and recorded upon arrival at the TSD facility(ies). If any deviation between the two records occurs, the matter is to be reported immediately to the DDC and shall be resolved by the Contractor to the satisfaction of the DDC.
- (3) The Contractor shall be held responsible for any and all actions necessary to remedy situations involving material spilled in transit or mud and dust tracked off-site. This cleanup shall be accomplished at the Contractor's expense.
- (4) The Contractor shall be responsible for inspecting the access routes for road conditions, overhead clearance and weight restrictions.
- (5) The Contractor shall only use the transporter(s) identified in the WHP for the performance of work. Only a transporter with a current Part 364 Waste Transporter Permit from DEC may transport this material. Any use of substitute or additional transporters must have previous written approval from the DDC at no additional cost to the City.
- (6) The Contractor shall develop, document, and implement a policy for accident prevention.
- (7) The Contractor shall not combine waste materials from other projects with material from this project.
- (8) The Contractor shall obtain for the City a hazardous waste generator identification number and will sign the manifest as the generator, if necessary.
- (9) No material shall be transported until approved by the DDC.

c. Disposal Facilities

- (1) The Contractor shall use only the TSD facility(ies) identified in the WHP for the performance of the work. Substitutions or additions shall not be permitted without prior written approval from the Program Administration, ESS, and, if approved, shall be at no extra cost to the City.
- (2) The Contractor shall be responsible for acceptance of the material at an approved TSD facility, for ensuring that the facility is properly permitted to accept the stated material, and that the facility provides the stated storage and/or disposal services.
- (3) The DDC reserves the right to contact and visit the disposal facility and regulatory agencies to verify the agreement to accept the stated material and to verify any other information provided. This does not in any way relieve the Contractor of his responsibilities under this Contract.
- (4) In the event that the identified and approved facility ceases to accept the stated materials or the facility ceases operations, it is the Contractor's responsibility to locate an alternate approved and permitted facility(ies) for accepting materials. The Contractor is responsible for making the necessary arrangements to utilize the facility(ies), and the alternate facility(ies) must be

approved in writing by the DDC in the same manner and with the same requirements as for the original facility(ies). This shall be done with no extra cost or delay to the City.

d. **Equipment and Vehicle Decontamination**

- (1) The Contractor shall design and construct a portable decontamination station to be used to decontaminate equipment and vehicles exiting the exclusion zone. The cost for this work shall be paid under Item 8.01 S – Health and Safety.

8.01 W1.3 METHOD OF MEASUREMENT

The quantity for on-site treatment and discharge or off-site disposal shall be on a per day basis.

8.01 W1.4 PRICE TO COVER

- A. The per day price bid for Item 8.01 W1 shall include the cost of furnishing all labor, materials, equipment, plan, and insurance for handling, transportation, disposal, documentation, permits, hauling, mobilization and demobilization, and any other incidentals thereto to complete the work.
- B. The Contractor will not be paid for water that is within the DEP Sewer Discharge Limits.

Payment will be made under:

| <u>ITEM NUMBER</u> | <u>ITEM</u> | <u>PAYMENT UNIT</u> |
|--------------------|---|---------------------|
| 8.01 W1 | Removal, Treatment and Disposal/Discharge of Contaminated Water | Day |

ITEM 8.01 W2 SAMPLING AND TESTING OF CONTAMINATED WATER

8.01 W2.1 WORK TO INCLUDE

A. Description

The work shall consist of sampling and testing of potentially contaminated groundwater, surface runoff within the excavated area and all contaminated water generated during the decontamination process.

B. Sampling and Testing

1. The Contractor is responsible, at a minimum, for sampling and testing of contaminated water for the DEP Sanitary/Combined and Storm Sewer Effluent Limit concentrations as listed in Attachment 1. The quality of the data is the Contractor's responsibility. Any additional testing required by the Federal, State and/or disposal facilities shall be included in the bid price of this Item.
2. All sampling and testing shall be conducted by a person trained in sampling protocols using accepted standard practices and/or the DEC sampling guidelines and protocols.
3. All sample containers shall be marked with legible sample labels which shall indicate the project name, sample location and/or container, the sample number, the date and time of sampling, preservatives utilized, how the sample was chilled to 4 degrees Celsius, and other information that may be useful in determining the character of the sample.
4. Chain-of-custody shall be tracked from laboratory issuance of sample containers through receipt of the samples.
5. The Contractor shall maintain a bound sample log book. The Contractor shall provide the DDC access to it at all times and shall turn it over to the DDC in good condition at the completion of the work. The following information, as a minimum, shall be recorded to the log:
 - a. Sample identification number
 - b. Sample location
 - c. Field observation
 - d. Sample type
 - e. Analyses
 - f. Date/time of collection
 - g. Collector's name
 - h. Sample procedures and equipment used
 - i. Date sent to laboratory/name of laboratory
6. Only dedicated sampling equipment may be used to collect these samples. All equipment involved in field sampling must be decontaminated before being brought to the site, and must be properly disposed of after use.

7. Samples shall be submitted to the Contractor's laboratory within the holding times for the parameters analyzed.
8. All analyses must be done by a laboratory that has received approval from the DOH's ELAP for the methods to be done. The Contractor must specify the laboratory in the WHP.
9. Analytical results for water discharged to the sewer and for off-site disposal must be submitted to the DDC no later than five (5) days after sample collection.
10. The City reserves the right to direct the Contractor to conduct alternative sampling in lieu of the parameters described above, if the situation warrants. The substitute sampling parameters shall be of equal or lesser monetary value than those described above, as determined by industry laboratory pricing standards.

8.01 W2.2 METHOD OF MEASUREMENT

Quantities for samples shall be measured as the number of sets of samples that are tested for the DEP Sanitary/Combined and Storm Sewer Effluent Limit concentrations. A set shall be defined as one (1) representative sample analyzed for the full range of DEP parameters as specified in attachment 1.

8.01 W2.3 PRICE TO COVER

The unit price bid per set for Item 8.01 W2 shall include the cost of furnishing all labor, materials, equipment, plan, and insurance for handling, transport, sampling, testing, documentation, permits, other incidentals necessary to complete the work of sampling and testing of contaminated water. Any additional costs incurred by the Contractor for sampling and testing of contaminated water shall be included in the bid price of this Item.

Payment will be made under:

| <u>ITEM NUMBER</u> | <u>ITEM</u> | <u>PAYMENT UNIT</u> |
|--------------------|--|---------------------|
| 8.01 W2 | Sampling and Testing of Contaminated Water | Set |

ATTACHMENT 1

**New York City Department of Environmental Protection
Limitations for Discharge To Storm, Sanitary/Combined Sewer**

**NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTEWATER TREATMENT**

Limitations for Effluent to Sanitary or Combined Sewers

| Parameter ¹ | Daily Limit | Units | Sample Type | Monthly Limit |
|---------------------------------|------------------|----------|---------------|---------------|
| Non-polar material ² | 50 | mg/l | Instantaneous | --- |
| pH | 5-11 | SU's | Instantaneous | --- |
| Temperature | < 150 | Degree F | Instantaneous | --- |
| Flash Point | > 140 | Degree F | Instantaneous | --- |
| Cadmium | 2 | mg/l | Instantaneous | --- |
| | 0.69 | mg/l | Composite | --- |
| Chromium (VI) | 5 | mg/l | Instantaneous | --- |
| Copper | 5 | mg/l | Instantaneous | --- |
| Lead | 2 | mg/l | Instantaneous | --- |
| Mercury | 0.05 | mg/l | Instantaneous | --- |
| Nickel | 3 | mg/l | Instantaneous | --- |
| Zinc | 5 | mg/l | Instantaneous | --- |
| Benzene | 134 | ppb | Instantaneous | 57 |
| Carbontetrachloride | --- | --- | Composite | --- |
| Chloroform | --- | --- | Composite | --- |
| 1,4 Dichlorobenzene | --- | --- | Composite | --- |
| Ethylbenzene | 380 | ppb | Instantaneous | 142 |
| MTBE (Methyl-Tert-Butyl-Ether) | 50 | ppb | Instantaneous | --- |
| Naphthalene | 47 | ppb | Composite | 19 |
| Phenol | --- | --- | Composite | --- |
| Tetrachloroethylene (Perc) | 20 | ppb | Instantaneous | --- |
| Toluene | 74 | ppb | Instantaneous | 28 |
| 1,2,4 Trichlorobenzene | --- | --- | Composite | --- |
| 1,1,1 Trichloroethane | --- | --- | Composite | --- |
| Xylenes (Total) | 74 | ppb | Instantaneous | 28 |
| PCB's (Total) ³ | 1 | ppb | Composite | --- |
| Total Suspended Solids (TSS) | 350 ⁴ | mg/l | Instantaneous | --- |
| CBOD ⁵ | --- | --- | Composite | --- |
| Chloride ⁵ | --- | --- | Instantaneous | --- |
| Total Nitrogen ⁵ | --- | --- | Composite | --- |
| Total Solids ⁵ | --- | --- | Instantaneous | --- |
| Other | | | | |

¹ All handling and preservation of collected samples and laboratory analyses of samples shall be performed in accordance with 40 C.F.R. pt. 136. If 40 C.F.R. pt. 136 does not cover the pollutant in question, the handling, preservation, and analysis must be performed in

accordance with the latest edition of "Standard Methods for the Examination of Water and Wastewater." All analyses shall be performed using a detection level less than the lowest applicable regulatory discharge limit. If a parameter does not have a limit, then the detection level is defined as the least of the Practical Quantitation Limits identified in NYSDEC's Analytical Detectability and Quantitation Guidelines for Selected Environmental Parameters, December 1988

- 2 Analysis for *non-polar materials* must be done by EPA method 1664 Rev. A. Non-Polar Material shall mean that portion of the oil and grease that is not eliminated from a solution containing N-Hexane, or any other extraction solvent the EPA shall prescribe, by silica gel absorption.
- 3 Analysis for PCB=s is required if *both* conditions listed below are met:
 - 1) if proposed discharge $\geq 10,000$ gpd;
 - 2) if duration of a discharge > 10 days.Analysis for PCB=s must be done by EPA method 608 with MDL= <65 ppt. PCB's (total) is the sum of PCB-1242 (Arochlor 1242), PCB-1254 (Arochlor 1254), PCB-1221 (Arochlor 1221), PCB-1232 (Arochlor 1232), PCB-1248 (Arochlor 1248), PCB-1260 (Arochlor 1260) and PCB-1016 (Arochlor 1016).
- 4 For discharge $\geq 10,000$ gpd, the TSS limit is 350 mg/l. For discharge $< 10,000$ gpd, the limit is determined on a case by case basis.
- 5 Analysis for Carbonaceous Biochemical Oxygen Demand (CBOD), Chloride, Total Solids and Total Nitrogen are required if proposed discharge $\geq 10,000$ gpd.

ATTACHMENT 2
Applicable Regulations

Applicable regulations include, but are not limited to:

1. 49 CFR 100 to 179 - DOT Hazardous Materials Transport and Manifest System Requirements
2. New York State Department of Environmental Conservation (DEC), Spills Technology and Remediation Series (STARS) Memo #1
3. 6 NYCRR 360-1 DEC Solid Waste Management Facilities
4. 6 NYCRR 364- Waste Transporter permits
5. Local restrictions on transportation of waste/debris
6. 40 CFR 260 to 272 - Hazardous Waste Management (RCRA)
7. 6 NYCRR 371 - Identification and Listing of Hazardous Wastes
8. 6 NYCRR 372 - Hazardous Waste Manifest System and Related Standards for Generators, Transporters and Facilities
9. 6 NYCRR 373-1 - Hazardous Waste Treatment, Storage and Disposal Facility Permitting Requirements
10. 6 NYCRR 376 - Land Disposal Restrictions
11. Posted weight limitations on roads or bridges
12. Transportation Skills Programs, Inc. 1985 - Hazardous Materials and Waste Shipping Papers and Manifests
13. Other local restrictions on transportation of waste/debris
14. Occupational Safety and Health Administration (OSHA), Standards and Regulations, 29 CFR 1910 (General Industry)
15. OSHA 29 CFR 1910.120 Hazardous Waste Operations and Emergency Response
16. OSHA Safety and Health Standards 29 CFR 1926 (Construction Industry)
17. OSHA 29 CFR 1910.146 Confined Space Entry Standard
18. Standard Operating Safety Guidelines, EPA Office of Emergency and Remedial Response Publication, 9285.1-03
19. NIOSH / OSHA / USCG / EPA Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities (1986)
20. U.S. Department of Health and Human Services (DHHS) "NIOSH Sampling and Analytical Methods," DHHS (NIOSH) Publication 84-100
21. ANSI, Practice for Respiratory Protection, Z88.2 (1980)
22. ANSI, Emergency Eyewash and Shower Equipment, Z41.1 (1983)
23. ANSI, Protective Footwear, Z358.1 (1981)
24. ANSI, Physical Qualifications for Respirator Use, Z88.6 (1984)
25. ANSI, Practice for Occupational and Educational Eye and Face Protection, Z87.1 (1968)
26. Water Pollution Control Federation "Manual of Practice No. 1, Safety in Wastewater Works"

27. NFPA No. 327 "Standard Procedures for Cleaning and Safeguarding Small Tanks and Containers"
28. Occupational Safety and Health Act Confined Space Entry Standard 29 CFR 1910.146.87
29. Department of Transportation 49 CFR 100 through 179
30. Department of Transportation 49 CFR 387 (46 FR 30974, 47073)
31. Environmental Protection Agency 40 CFR 136 (41 FR 52779)
32. Environmental Protection Agency 40 CFR 262 and 761
33. Resource Conservation and Recovery Act (RCRA)
34. Any transporter of hazardous or non-hazardous materials shall be licensed in the State of New York and all other states traversed in accordance with all applicable regulations.

ATTACHMENT 3

Definitions

Contaminated Groundwater and Decontamination Fluids: Groundwater within the excavation trench or decontamination water that contains regulated compounds above the NYCDEP Discharge to Sanitary/Combined Sewer Effluent limits.

Disposal or Treatment Facility: A facility licensed to accept either non-hazardous regulated waste or hazardous waste for either treatment or disposal.

Exclusion Zone: Work area that will be limited to access by Contractor personnel specifically trained to enter the work area only. The exclusion zone will be set up to secure the area from the public and untrained personnel. The project health and safety program will apply to all construction personnel including persons entering the work area.

Hazard Assessment: An assessment of any physical hazards that may be encountered on a work site.

Hazardous Soils: Soils that exhibit any of the characteristics of a hazardous waste, namely ignitability, corrosivity, reactivity, and toxicity, as defined in 6 NYCRR Part 371, Section 371.3 and 40 CFR Section 261.

Hazardous Substance Evaluation: An evaluation of the possible or known presence of any hazardous substances that may be encountered on a job site. This evaluation is included in the Health and Safety Plan and will include the identification and description of any hazardous substances expected to be encountered. Material Safety Data Sheets (MSDS) will be included for each substance.

Health and Safety Plan: A plan employed at a work site that describes all the measures that will be taken to assure that all work is conducted in a safe manner, and that the health of the workers and the public will be insured.

Material Handling Plan: A plan outlining the methods that will be employed to handle, transport and dispose of contaminated materials.

Non-Hazardous Contaminated Soils: Soils which exhibit a distinct chemical or petroleum odor, or exhibit elevated photoionization detector readings but are not classified as hazardous waste under 6 NYCRR Part 371, Section 371.3 and 40 CFR Section 261.

New York State Health Department's Environmental Laboratory Approval Program: A program by which the state of New York approves and accredits environmental testing laboratories.

PCBs: Polychlorinated biphenyls are a group of toxic compounds commonly used as a coolant in transformers and other electrical components.

Photoionization Detector: A hand held instrument used to measure volatile organic compounds in air. The instrument ionizes the organic molecules through the use of an ultraviolet lamp.

RCRA Hazardous Waste Characteristics: Characteristics of a material which may indicate the material is hazardous. These include: ignitability corrosivity, reactivity, and toxicity.

Total Petroleum Hydrocarbons: An analytical procedure used to determine the total amount of petroleum compounds in a material.

ATTACHMENT 4

Phase II Subsurface Corridor Investigation Report

- FINAL -

**Phase II Subsurface Corridor Investigation Report
for
Storm, Sanitary Sewer and Water Mains in Coney Island Area
Area Bounded by Belt Pwky, West 28th St, Rockaway Inlet and W 8th St
Brooklyn, New York**

DDC PROJECT NO. CONISPH01
WORK ORDER NO. 7691-LBA-3-7365
CONTRACT REGISTRATION NO. 20101417626

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PROJECT NO. SPC-870H7

November 17, 2011

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EXECUTIVE SUMMARY

On behalf of the New York City Department of Design and Construction (NYCDDC), Louis Berger & Associates, P.C. (LBA) conducted a Phase II Subsurface Corridor Investigation (Phase II SCI) for the area bounded by Neptune Avenue and Hart Place to the north, West 12th Street to the east, Surf Avenue to the south, and West 28th Street to the west in the Coney Island section of Brooklyn, New York (hereinafter referred to as the "Corridor"). The Corridor location is identified on the Topographic Map on Figure 1.

The New York City Department of Environmental Protection (NYCDEP) is proposing a drainage improvement plan for the Coney Island area. According to the New York City Economic Development Corporation (NYCEDC) and NYCDDC, proposed infrastructure improvements will be implemented in five (5) phases (Phases I through V). Currently, Phases IV and V have been proposed; however, the areas comprising Phases IV and V have not been formally defined and therefore are not addressed under this scope. The NYCDEP's proposal includes the upgrading and enlargement of three (3) existing drainage outfalls to Coney Island Creek. The outfalls are located at the intersection of Coney Island Creek with West 12th Street, West 15th Street and West 21st Street. Larger storm sewers are proposed in order to improve storm water flow to Coney Island Creek and reduce flooding throughout the Corridor. In addition, the NYCDDC is proposing a drainage improvement plan within portions of the Corridor.

The three proposed outfalls would discharge to Coney Island Creek, which is a tidal wetland. These proposed outfalls will require permits from New York State Department of Environmental Conservation (NYSDEC) and the US Army Corps of Engineers (USACE). Additional construction-related permits are also expected to be necessary (e.g., for temporary street closures and dewatering). The presence of wetlands within the proposed project area results in the project being considered an unlisted action, thereby triggering a City Environmental Quality Review (CEQR). This Phase II SCI was conducted to determine if the Corridor's environmental condition might impact proposed construction activities related to the proposed infrastructure improvements. Refer to Figure 3 for the Proposed Infrastructure Implementation Map.

LBA prepared a Phase I Corridor Assessment Report (Phase I CAR) dated April 2011, which presented the results of a survey conducted along the Corridor to assess the presence of potential sources of subsurface contamination within, and in the immediate vicinity of, the Corridor. The Phase I CAR identified sixty-seven (67) sites that had a potential "High" risk, seventy-four (74) sites that had a potential "Moderate" risk to impact the subsurface (soil and/or groundwater) of the Corridor, and recommended the completion of a Phase II SCI. LBA submitted a Phase II SCI Work Plan to the NYCDDC in July 2011 for approval by NYCDEP as part of the CEQR process. The objective of the Phase II SCI was to assess the presence of subsurface contamination that might impact proposed construction activities. The Phase II SCI Work Plan was approved by NYCDEP in September 2011 and consisted of the following components:

- The advancement of 31 soil borings (SB01 through SB31) to a maximum depth of ten (10) feet below ground surface (ft bgs). Borings were advanced using a Geoprobe direct push drill

rig. Soil samples were collected using 5-foot long, 2-inch diameter Macro Core stainless steel samplers equipped with acetate sleeves. Six (6) temporary well points (TWPs) were installed in soil borings SB07, SB10, SB13, SB15, SB20 and SB24. For the installation of the TWPs, the Geoprobe unit was advanced to a maximum depth of 10 ft bgs, approximately four and a half (4.5) feet below the encountered water table. Each TWP consisted of a 10-foot length screen section of one-inch diameter schedule 40 PVC. A groundwater sample was collected from each TWP for screening and laboratory analysis via dedicated Teflon tubing and a peristaltic pump;

- Field screening, classification and identification of soils from the ground surface to the bottom of each boring. Soil samples were visually classified in the field using the USCS soil classification system. Field screening consisted of visual and olfactory indicators of impacts as well as screening with a photoionization detector (PID);
- The collection of one (1) composite and one (1) grab sample from borings in the vicinity of "High" risk sites (SB04 through SB07, SB10, SB13 through SB17, and SB19 through SB29) and the collection of one (1) composite and one (1) grab sample from borings advanced in the vicinity of "Moderate" risk sites (SB01 through SB03, SB08, SB09, SB11, SB12, SB18, SB30 and SB31). Visual and olfactory evidence of potential contamination was identified in soil borings SB15 and SB22. The composite samples taken from the soil borings were comprised of soil from the entire boring column. The grab samples were collected from either the 6-inch interval above the watertable or the 6-inch interval exhibiting the highest evidence of contamination;
- Composite samples collected from the borings were analyzed for: (1) Target Compound List (TCL) base neutral/acid (BN/A) extractable semi-volatile organic compounds (SVOCs) by United States Environmental Protection Agency (EPA) Method 8270; (2) Target Analyte List (TAL) metals by EPA Method 6010B; (3) TCL herbicides and pesticides by EPA Method 8151A and 8081A; and (4) TCL polychlorinated biphenyls (PCBs) by EPA Method 8082. The grab samples collected from the borings were analyzed for TCL volatile organic compounds (VOCs) by EPA Method 8260;
- The collection of eight (8) composite waste characterization soil samples (TCLP01 through TCLP08). The waste characterization samples were analyzed for: (1) the EPA Full Toxicity Characteristics Leaching Procedure (TCLP) parameters by EPA Method SW846; and (2) the Resource Conservation and Recovery Act (RCRA) Characteristics (ignitability, reactivity and corrosivity) by EPA Method SW846;
- The completion of six (6) temporary well points (TWPs) in borings SB07, SB10, SB13, SB15, SB20 and SB24, the collection of six (6) groundwater from the TWPs and the laboratory analysis of the samples for: (1) TCL VOCs by EPA Method 8260; (2) TCL BN/A SVOCs by United States Environmental Protection Agency (EPA) Method 8270; (3) TAL metals by EPA Method 6010B (both filtered and unfiltered); (4) TCL herbicides and pesticides by EPA Method 8151A and 8081A; and (5) TCL polychlorinated PCBs by EPA



Method 8082; and (6) the parameters published by the NYCDEP as Limitations for Effluent to Sanitary or Combined Sewers (NYCDEP Sewer Discharge Criteria); and

- The preparation of this report, which includes tables summarizing the laboratory analytical results and figures depicting boring locations, significant site features and, if applicable, contamination occurrence and distribution.

In order to evaluate subsurface soil quality, laboratory analytical results of grab and composite soil samples were compared with regulatory standards identified in: (1) NYSDEC Subpart 375-6: Remedial Program Unrestricted Use (Track 1) and Residential and Commercial Use (Track 2) Soil Cleanup Objectives (SCOs) and (2) NYSDEC CP-51 Soil Cleanup Guidance Supplemental Soil Cleanup Objectives (SSCOs) to NYSDEC Subpart 375-6. The laboratory analytical results of the waste classification soil samples were compared with the Toxicity Characteristic Regulatory Levels for Hazardous Waste published in RCRA and NYSDEC Part 371. The analytical results of the groundwater samples were compared to (1) NYSEC Class GA Groundwater Standards and Guidance Values as per NYSDEC Technical and Operational Guidance Series (TOGS) and (2) the NYCDEP Sewer Discharge Criteria.

Based on the evaluation of the field screening data and the laboratory analytical results, and a comparison to applicable regulatory standards, the following conclusions are presented:

- Visual and olfactory evidence of possible petroleum contamination as well as elevated PID readings were observed in soil borings SB15 and SB22. No visual or olfactory evidence of possible petroleum contamination was observed in any of the remaining soil borings and no additional PID readings were detected above the background level of 1 ppm in any of the remaining soil borings;
- The Corridor was found to be underlain by at least five (5) feet of non-native fill material in the vicinity of SB07, SB09, SB21 and SB29. The fill layer consists of pale yellowish brown to dark yellowish brown medium to fine sand and little coarse to fine gravel with traces of silt. Construction debris in the form of concrete and brick pieces were observed within the fill materials. The remainder of the Corridor is underlain primarily by reworked native soils to depths of at least five (5) ft bgs. The reworked soil is comprised mainly of pale yellowish brown to dark yellowish brown medium to fine sand and little coarse to fine gravel with traces of silt. Beneath these fill materials and reworked soils, native soils along the Corridor are comprised of pale yellowish brown medium to fine sand with traces of silt at depths up to ten (10) ft bgs. Groundwater was observed at approximately six (6) ft bgs;
- TCL VOCs were detected above regulatory standards in SB22 and SB06. Acetone in sample SB06 and ethylbenzene and total xylene in SB22 are in excess of the Unrestricted Use (Track 1) SCOs. Soil boring SB22 was advanced in the vicinity of NYCT's Stillwell Avenue station and the exceedances of ethylbenzene and total xylene may be attributed to historic and ongoing site operations and may also be attributed to contaminants in fill material beneath the Corridor or native soils which have been reworked and replaced;



- Several SVOC compounds were detected at concentrations above regulatory standards in soil samples SB06, SB07, SB21, SB23, SB24, SB26 and SB29. Compounds that exceeded the Unrestricted Use (Track 1) and Residential Use (Track 2) SCOs include benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene and dibenz(a,h), indeno(1,2,3-cd)pyrene. Compounds that exceeded the Commercial Use (Track 2) SCOs include benzo(a)pyrene, benzo(a)anthracene, benzo(b)fluoranthene, dibenz(a,h)anthracene and indeno(1,2,3-cd)pyrene.
- Lithology shows that the sample collection locations SB07, SB09, SB21 and SB29 fall within the ubiquitous historical fill material at the Corridor and that the remainder of the Corridor is underlain by at least five (5) feet of reworked native soil. Therefore, detected concentrations of SVOCs in these soil samples may be attributed to contaminants in fill material beneath the Corridor, native soils having been reworked and replaced during construction or renovation, and may also be partially attributed to stormwater runoff;
- Several metals were detected at concentrations above regulatory standards in soil samples SB06, SB07, SB16, SB21, SB23, SB24, and SB26 through SB30. Copper, lead, manganese, mercury and zinc were detected above the Unrestricted Use (Track 1) SCOs at multiple locations. In addition, concentrations of mercury in sample SB06 and lead in sample SB26 exceed the Residential Use (Track 2) SCOs. Arsenic in sample SB21 and mercury in sample SB23 exceeded the Commercial Use (Track 1) SCOs. Exceedances for lead were detected at concentrations between 77 and 410 ppm. Elevated metals levels may be attributed to contaminants in urban fill material, native soils having been reworked and replaced during construction or renovation and may also be partially attributed to stormwater runoff;
- Laboratory results indicate exceedances of the Unrestricted Use (Track 1) SCOs for the pesticides 4,4'-DDD in SB13; 4,4'-DDE in SB13, SB14, SB17 and SB29; 4,4'-DDT in SB13, SB14, SB17, SB22 and SB29; and dieldrin in SB13 and SB29. Exceedances of pesticides may be attributed to contaminants in fill material placed along the Corridor and native soils having been reworked and replaced during construction or renovation. Refer to Table 5 for a summary of pesticide detections;
- The composite waste classification samples TCLP01 through TCLP08 were analyzed for USEPA RCRA hazardous waste characteristics including corrosivity, ignitability, reactivity and toxicity. Although exceedances of lead for Unrestricted Use (Track 1) and Residential Use (Track 2) SCOs were detected throughout the Corridor, results of composite waste classification samples indicate that the soil beneath the Corridor does not exhibit evidence of hazardous waste characteristics;
- Several metals were detected at concentrations above NYSDEC Class GA Groundwater Standards and Guidance Values in all groundwater samples. Unfiltered groundwater samples exhibited numerous exceedances which are typical given the increased turbidity of the groundwater during sampling procedures and the leaching of constituents from soil particles due to added acid preservative. TAL metals exceeding the Class GA Groundwater Standards and Guidance Values for the unfiltered groundwater samples include antimony, lead,



magnesium, manganese, iron and sodium. The number of exceedances for filtered groundwater samples was lower and includes antimony, magnesium, manganese and sodium. Filtered samples exhibited elevated levels of TAL metals which may be attributed to contaminants in urban fill material or native soils having been reworked and replaced during construction or renovation; and

- Groundwater was encountered at approximately six (6) ft bgs. The six (6) groundwater samples SB07GW, SB10GW, SB13GW, SB15GW, SB20GW and SB24GW were analyzed for the parameters required by the NYCDEP Limitations for Effluent to Sanitary or Combined Sewers (Daily Limit). No exceedances of NYCDEP Sewer Discharge Criteria were reported.

Based on the results of the field investigation and laboratory analytical results, LBA recommends the following:

- The Contract documents should identify provisions and a contingency for managing, handling, transporting and disposing of VOC, SVOC, pesticide, lead and metals-impacted hazardous and non-hazardous soil. The Contractor should be required to submit a Material Handling Plan, to identify the specific protocol and procedures that will be employed to manage the waste in accordance with applicable regulations;
- Dust control procedures are recommended during excavation activities to minimize the creation and dispersion of fugitive airborne dust. The Contractor may implement dust control measures to minimize potential airborne contaminants released as a direct result of construction activities. A Community Air Monitoring Plan (CAMP) shall be developed in accordance with NYSDEC DER-10 Regulations. The CAMP requires real-time monitoring for particulates (i.e., dust, VOCs, etc.) at the downwind perimeter of each designated work area when certain activities are in progress at contaminated sites. The CAMP is intended to provide a measure of protection for the downwind community from potential airborne contaminant releases as a direct result of investigative and remedial work activities. Specific requirements shall be reviewed for each situation in consultation with NYSDOH to ensure proper applicability;
- Based on the observed depth to groundwater (6 ft bgs) dewatering may be necessary during construction activities in the Corridor. Based on the results of laboratory analyses for NYCDEP sewer discharge criteria, groundwater may not require pretreatment prior to discharge to sanitary or combined sewers; however, the contractor will be required to obtain a NYCDEP sewer discharge permit and perform sampling and laboratory analysis prior to discharge into sanitary and combined sewers;
- In addition, if discharge into storm sewers is required during dewatering, it must be done under the appropriate NYSDEC State Pollutant Discharge Elimination System (SPDES) permit. Additional sampling and laboratory analysis will be required to satisfy NYSDEC requirements prior to discharge into storm sewers; and



- Before beginning any excavation activity, the contractor shall submit a site-specific health and safety plan (HASP) that will meet the requirements set forth by the Occupational, Safety and Health Administration (OSHA), the New York State Department of Health (NYSDOH) and any other applicable regulations. The HASP should identify the possible locations and risks associated with the potential contaminants that may be encountered, and the administrative and engineering controls that will be utilized to mitigate concerns (i.e. dust control procedures for metals).



1.0 INTRODUCTION

On behalf of the New York City Department of Design and Construction (NYCDDC), Louis Berger & Associates, P.C. (LBA) conducted a Phase II Subsurface Corridor Investigation (Phase II SCI) for the area bounded by Neptune Avenue and Hart Place to the north, West 12th Street to the east, Surf Avenue to the south, and West 28th Street to the west in the Coney Island section of Brooklyn, New York (hereinafter referred to as the "Corridor"). The Corridor location is identified on the Topographic Map on Figure 1.

The New York City Department of Environmental Protection (NYCDEP) is proposing a drainage improvement plan for the Coney Island area. According to the New York City Economic Development Corporation (NYCEDC) and NYCDDC, proposed infrastructure improvements will be implemented in five (5) phases (Phases I through V). Currently, Phases IV and V have been proposed; however, the areas comprising Phases IV and V have not been formally defined. The NYCDEP's proposal includes the upgrading and enlargement of three (3) existing drainage outfalls to Coney Island Creek. The outfalls are located at the intersection of Coney Island Creek with West 12th Street, West 15th Street and West 21st Street. Larger storm sewers are proposed in order to improve storm water flow to Coney Island Creek and reduce flooding throughout the Corridor. In addition, the NYCDDC is proposing a drainage improvement plan within portions of the Corridor.

The three proposed outfalls would discharge to Coney Island Creek, which is a tidal wetland. These proposed outfalls will require permits from New York State Department of Environmental Conservation (NYSDEC) and the US Army Corps of Engineers (USACE). Additional construction-related permits are also expected to be necessary (e.g., for temporary street closures and dewatering). The presence of wetlands within the proposed project area results in the project being considered an unlisted action, thereby triggering a City Environmental Quality Review (CEQR). This Phase II SCI was conducted to determine if the Corridor's environmental condition might impact proposed construction activities related to the proposed infrastructure improvements. Refer to Figure 3 for the Proposed Infrastructure Implementation Map. The roadways comprising Phases I, II and III are as follows:

Phase I:

- Surf Avenue between West 15th Street and West 12th Street
- West 15th Street between Surf Avenue and Coney Island Creek

Phase II:

- Neptune Avenue between West 20th Street and West 22nd Street
- Mermaid Avenue between West 20th Street and West 24th Street



- Surf Avenue between West 20th and West 22nd Street
- West 21st Street between Surf Avenue and Neptune Avenue

Phase III:

- Stillwell Avenue between Surf Avenue and Coney Island Creek
- Neptune Avenue between Stillwell Avenue and West 12th Street
- West 12th Street between Neptune Avenue and Coney Island Creek

1.1 Summary of Previous Environmental Investigations

LBA prepared a Phase I Corridor Assessment Report (Phase I CAR) in April 2011 for the Coney Island area bounded by Neptune Avenue and Hart Place to the north, West 8th Street to the east, Boardwalk to the south, and West 28th Street to the west. LBA's Phase I CAR of the Coney Island area presented the results of a survey conducted along the Corridor to assess the presence of potential sources of subsurface contamination within, and in the immediate vicinity of, the Corridor. The survey also included a review of fire insurance maps to document historical use and a limited review of the New York State databases to identify sites that are known to be contaminated.

The Phase I CAR identified 227 sites categorized as initially having a "High" risk with respect to potential impact on the project, and 19 sites as initially having a "Moderate" risk, in conjunction with the Corridor. Based on modifying information, LBA recommended that 74 of the 227 initial "High" risk sites be reclassified as "Moderate" risk sites and 86 of the initial 227 "High" risk sites be reclassified as "Low" risk sites. LBA recommended that all 19 of the 19 initial "Moderate" risk sites be reclassified as "Low" risk sites.

Therefore, the final evaluation has identified 67 final "High" risk sites and 74 final "Moderate" risk sites with respect to potential impact on the project corridor. The final "High" and "Moderate" risk sites are listed below:

HIGH RISK SITES

- 1) Hess/Merit Oil Corp., 1620 Neptune Avenue (Map ID A1, A6, A16, A25, A27, A31 and P147)
- 2) Sea Breeze Auto Body/Great Auto Repair, 2772 W. 15th Street (Map ID B2 and B7; SB06)
- 3) Sun Ocean Auto Body/Ocean View Collision and Auto Repair, 1602 Neptune Avenue (Map ID A3)



- 4) BUG Coney Island Gate Station/Brooklyn Borough Gas Works, 817 Neptune Avenue (Map ID 17 and C88)
- 5) Brooklyn Union Gas Co. – Coney Island/Keyspan, 873 Neptune Avenue (Map ID C5, C21, C22, C28, E48, C90, C382, C384, C385 and C404; SB24)
- 6) Auto Spa Collision Inc., 3123 Cropsey Avenue (Map ID F10)
- 7) Romeo's Transit Serv/Coney Island Car Wash, 1617 Neptune Avenue (Map ID A11 and A32)
- 8) General Iron Corp., 2709/2715 W. 15th Street (Map ID D8 and D13; SB07)
- 9) Unitek Auto Center, Inc., 2807 W. 15th Street (Map ID H23; SB03, SB04)
- 10) MBA Autobody Repair, Inc., 3109 Cropsey Avenue (Map ID F26)
- 11) All City Auto Works, Ltd./Royal Auto Body, 3113-3115 Cropsey Avenue (Map ID F33 and F58)
- 12) Neptune Auto Repair, 1418 Neptune Avenue (Map ID E36)
- 13) Lev's Auto Repair, 1515 Neptune Avenue (Map ID B38; SB03, SB04, SB05)
- 14) Cropsey Auto Center/Atlantic Auto Service Inc./Cheers Auto Service Inc., 3118 Cropsey Avenue (Map ID F49, F55, F62 and F63)
- 15) Con Edison of NY Service Center, 1201-49 Neptune Avenue (Map ID E20, I50, I51, E52, I59, E66, C67, E77, E78, E79, E80 and E89; SB22, SB23)
- 16) Nut Partners, Inc./Michain Auto Shop/Exotic Auto Body/V&M Auto Body, 1711-1729 Neptune Avenue (Map ID A64, A65, A73, A74, A87, A92 and A264)
- 17) Valente Concrete, 3100 Cropsey Avenue (Map ID F68 and F81)
- 18) L & T Collision, 3073 Cropsey Avenue (Map ID F70)
- 19) All Stars Auto Care Inc./Neptune Service Inc., 1109-1113 Neptune Avenue (Map ID E15, E71 and E82; SB23, SB24)
- 20) Affordable Motors of Brooklyn, Inc., 3075 Cropsey Avenue (Map ID F76)
- 21) Cropsey Auto Repair, 3103-05 Cropsey Avenue (Map ID F86)
- 22) NYCHA Coney Island Site 1B, 2001-2003 Surf Avenue (Map ID K93 and K94; SB01, SB13, SB14)
- 23) Verizon Garage/Bell Atlantic/NY Tele Inc., 1919 Neptune Avenue (Map ID U107, U151, U197, U275, U281 and U282; SB21)
- 24) 1228 Surf Avenue (Map ID W109, W110, AP191 and AP263; SB10)
- 25) NYC-HA Carey Gardens, 2955 West 24th Street (Map ID W109, W110, AP191 and AP263)
- 26) NYC Police 60th Precinct/FDNY Engine 245, 2951 West 8th Street (Map ID X111, X162, X223, X236, X290 and X301)
- 27) Jiffy Cleaners, 1412 Mermaid Avenue (Map ID N122, N222, N353 and N363; SB31)
- 28) Con Edison - West 12 St Substation, 2896 W. 12th Street (Map ID AC123)
- 29) New Best Choice/Golden Bell Cleaners, 1506 Mermaid Avenue (Map ID N125 and N341; SB02)
- 30) Mobil R/S #17968/ExxonMobil Oil Corp. 17968/Royal Petroleum, 1702 Neptune Avenue (Map ID A134, A209, A240, A274, A292 and A299)
- 31) Consolidated Edison of NY, 279-290 Avenue C (aka East 16th Street) (Map ID H136)
- 32) Sun Fuel Corp./Marlen Gas Service Station/Waraco, 2001 Neptune Avenue (Map ID U137, U220, U276, U295 and U297; SB20, SB21)



- 33) DSNY BK District 13 Garage/Brooklyn East 13, 2012 Neptune Avenue (Map ID AE141, AE233, AE245, AE293 and AE314; SB15, SB16, SB20)
- 34) Coney Island I Site 4 and 5 (Surfside Gardens), 2926 West 27th Street/2926 West 25th Street (Map ID AG145, AG146 and AA354)
- 35) Als Collision Autobody, 2123 Neptune Avenue (Map ID AH149; SB21)
- 36) Haber Houses - NYCHA, 3031-3033 West 25th Street (aka 3021 West 25th Street) (Map ID AI150, AL194 and AL200)
- 37) Carousel Collision, 1902 Neptune Avenue (Map ID U152 and R356)
- 38) Coney Island Aquarium, West 8th Street and Boardwalk (Map ID 167, 181, AB206, AB238, AB246, AB309, AB369 and X386)
- 39) 3052 West 21st Street (Map ID A168)
- 40) Coney Island Garage DPR – DDC, West 25th Street and Surf Avenue (Map ID AL175, AL176, AL177, AL178, AL179 and AL180)
- 41) Coney Island Gas & Wash, 1709-1729 Surf Avenue (Map ID AN184, AN283, AN305 and AN325)
- 42) New Dimension Auto Diagnostic Ct. Inc., 2103 Neptune Avenue (Map ID AH237; SB19)
- 43) Con Edison - W 8th Street Yard, 2875 W 8th Street (Map ID AV248)
- 44) NYC-HA Carey Gardens 2822/2832 West 23rd Street (aka 2816 West 23rd Street) (Map ID AX267, AX269, M302, AX339 and AX343; SB17)
- 45) Robin Bus Co., 2302 Neptune Avenue (Map ID M277)
- 46) 1530 Mermaid Avenue (Map ID N284)
- 47) NYCT Brighton Line Bents 176-251 (Map ID X296)
- 48) Dumain French Cleaners, 2928 West 17th Street (Map ID AP308 and P370)
- 49) NYCT – West 8th Street Station (D&F Line), 2925 West 8th Street (Map ID X316)
- 50) 2918 Stillwell Avenue (Map ID Y329; SB25)
- 51) I&D Goodwill, 2831 West 8th Street (Map ID AZ376)
- 52) Nu-Cropsey Auto Body, 3088 Cropsey Avenue (Map ID F387)
- 53) FNC Auto Repair and Collision, 3086 Cropsey Avenue (Map ID F388)
- 54) Cropsey Coney Island Corp./Wolf Petroleum Corp./Amoco Gas Station/Shell Service Station #10-21, 3072 Cropsey Avenue (Map ID G391, G392, G393, G394, G395, G396, G397, G398 and G399)
- 55) Cee Joe Auto Inc. – Autobody, 2775-77 Stillwell Avenue (Map ID BA410; SB30)
- 56) Nicky's Brooklyn Auto Glass, 1523 Neptune Avenue
- 57) High Tech Auto Repair, 1601 Neptune Avenue (SB08)
- 58) Vintage Collision and Recovery Inc., 2727 W. 16th Street
- 59) Larry's Radiator Repair, 1421 Neptune Avenue (SB05)
- 60) Auto Repair of Brooklyn, 1422 Neptune Avenue (SB03, SB04)
- 61) 2718 West 16th Street
- 62) NYCT Stillwell Avenue Terminal, Neptune and Stillwell Avenue (Map ID E39; SB22, SB28, SB29)
- 63) NYCTA – 2906 W. 12th Street (Map ID AC286)
- 64) NYCTA – Stillwell Avenue, 2901 Stillwell Avenue (Map ID Y298; SB29)
- 65) NYCTA – West End Lot, 2818 Stillwell Avenue (Map ID E332; SB29)
- 66) 1416 Mermaid Avenue (Map ID N132; SB31)



67) 1720 Mermaid Avenue (Map ID P304)

MODERATE RISK SITES

- 1) Lane Distributing Corp., Cropsy Avenue and Hart Place (Map ID G19)
- 2) 1528 Mermaid Avenue (Map ID N99)
- 3) 1716 Mermaid Avenue (Map ID P101)
- 4) 1726 Mermaid Avenue (Map ID P102)
- 5) 2908 Stillwell Avenue (Map ID Y112; SB25, SB31)
- 6) Dial French Cleaners / King Cleaners, 2115 Surf Avenue (Map ID Z113, Z114 and Z119, SB12)
- 7) Junior High School 239 - Brooklyn/Mark Twain Junior High School
2401 Neptune Avenue (Map ID T115, T210, T227 and T239)
- 8) 2904 Stillwell Avenue (Map ID Y116; SB31)
- 9) P.S. 288 Shirley Tanyhill School, 2950 West 25th Street (Map ID A117 and A118)
- 10) 1612 Mermaid Avenue (Map ID N121)
- 11) Luna Park Housing Corp., 2880 West 12th Street (Map ID AC138, AR231 and AC294)
- 12) 1620 Mermaid Avenue (Map ID P147)
- 13) 2905 West 15th Street (Map ID N148; SB02)
- 14) 821 Surf Avenue (Map ID L163 and AB193)
- 15) 3050 West 21st Street (Map ID AI164)
- 16) 1518 Mermaid Avenue (Map ID N165)
- 17) Sea Park East Partners, 2980 West 28th Street (Map ID AK166 and AK169)
- 18) J&J Auto Collision – Autobody, 3030 West 22nd Street (Map ID 174)
- 19) Apartment Building, 1608 Mermaid Avenue (Map ID N182 and N330)
- 20) 1521 Surf Avenue (Map ID AO185; SB08)
- 21) 2910 West 15th Street (Map ID N186; SB01, SB08)
- 22) 2906 West 17th Street (Map ID P188)
- 23) 1604 Mermaid Avenue (Map ID N189)
- 24) Cosme Property, 1712 Mermaid Avenue (Map ID P192 and P362)
- 25) Dime Savings Bank of New York/Washington Mutual Bank, Mermaid Avenue and West
17th Street (2901-2911 W. 17th Street) (Map ID P139, 195 and P259; SB27)
- 26) Portal Building and Police District No. 34, 1237 Surf Avenue (Map ID V196; SB10)
- 27) 2925 West 16th Street (Map ID N198)
- 28) Neptune Pumping Station, 2327 Neptune Avenue (Map ID M199 and M214)
- 29) PS 90, 2840 West 12th Street (Map ID AR204, AR212, AR252 and T253)
- 30) 2937 West 15th Street (Map ID N207; SB01)
- 31) 2015 Boardwalk West (Map ID A215)
- 32) 1724 Mermaid Avenue (Map ID P217)
- 33) 1526 Mermaid Avenue (Map ID N221)
- 34) 1610 Mermaid Avenue (Map ID N232)
- 35) 1512 Mermaid Avenue (Map ID N234)
- 36) SIUH Mermaid Medical, 1704 Mermaid Avenue (Map ID P241 and P317)
- 37) 2929 West 16th Street (Map ID N242)



- 38) 1728 Mermaid Avenue (Map ID P251)
- 39) 1420 Mermaid Avenue (Map ID N254)
- 40) 1207 Surf Avenue (Map ID N257; SB11)
- 41) 2933 West 16th Street (Map ID N258; SB08)
- 42) 1514 Mermaid Avenue (Map ID N261)
- 43) 1315 Surf Avenue (Map ID V265; SB09)
- 44) 1319 Surf Avenue (Map ID V266; SB09)
- 45) NYCHA Cary Gardens, 2932 West 22nd Street (aka 2201 Surf Avenue) (Map ID 270)
- 46) 1323 Surf Avenue (Map ID V271; SB01, SB09)
- 47) 2925 West 20th Street (Map ID AY289)
- 48) 805 Surf Avenue (Map ID L291)
- 49) 1622 Mermaid Avenue (Map ID P310)
- 50) 1601 Surf Avenue (Map ID AO320)
- 51) 1904 Mermaid Avenue (Map ID R322)
- 52) 2927 West 20th Street (Map ID AY326; SB08)
- 53) 1527 Surf Avenue (Map ID AO328; SB08)
- 54) 1916 Mermaid Avenue (Map ID R331)
- 55) 1301 Surf Avenue (Map ID V334; SB25)
- 56) 2913 West 17th Street (Map ID P335)
- 57) 2927 West 16th Street (Map ID N336)
- 58) 1329 Surf Avenue (Map ID V338; SB01)
- 59) 1618 Mermaid Avenue (Map ID S340)
- 60) 1502 Mermaid Avenue (Map ID N345; SB02)
- 61) 1718 Mermaid Avenue (Map ID P346)
- 62) 1906 Mermaid Avenue (Map ID R350)
- 63) 1616 Mermaid Avenue (Map ID N352)
- 64) 1902 Mermaid Avenue (Map ID R356)
- 65) 2906 West 15th Street (Map ID N357; SB02, SB11)
- 66) 1607 Surf Avenue (Map ID AO358; SB08)
- 67) 1614 Mermaid Avenue (Map ID N364)
- 68) 2911 West 15th Street (Map ID N367; SB02)
- 69) 2929 West 20th Street (Map ID AY372; SB08)
- 70) 2931 West 15th Street (Map ID N374; SB01)
- 71) NYCTA - Neptune Avenue, Neptune Avenue and Shell Road (Map ID C383)
- 72) Blast Auto Repair + Lube Inc., 2764 Stillwell Avenue (Map ID BA411; SB30)
- 73) Amalgamated/Warbasse Houses/Warbasse Cogen Facility/Warbasse Houses and Power Plant, 2701 West 6th Street (Map ID BF445, BF446, BF447, BF448, BF449 and BF450)
- 74) Phyllis Transportation Corp., 2516 Neptune Avenue

LBA's CAR originally proposed a total of 134 soil borings to investigate "High" and "Moderate" risk sites along the Corridor and within the Corridor vicinity. LBA proposed a total of two (2) soil borings for every "High" Risk site and one (1) soil boring for every "Moderate" risk site. However, based on further review by LBA, many of the "High" and "Moderate" risk sites are present in close vicinity to each other or "clusters" near the Corridor, and thus, many of the prescribed borings would overlap. Therefore, LBA proposed 31 borings to adequately

investigate "High" and "Moderate" risk sites along the portion of the Corridor to be affected by the NYCDEP's proposed drainage improvement plan. The locations of the final "High" and "Moderate" risk sites are depicted on Figures 2, 5 and 6.

1.2 Scope of Work

LBA submitted a Phase II SCI Work Plan to the NYCDDC in July 2011 for approval by NYCDEP as part of the CEQR process. The Work Plan was approved by NYCDEP in September 2011. A copy of the approved Work Plan and NYCDEP's acceptance letter are attached in Appendix D. The Phase II SCI consisted of a field investigation, laboratory analyses, and the preparation of this report, which includes tables summarizing the laboratory analytical results and figures depicting boring locations, significant site features and, if applicable, contamination occurrence and distribution. Drilling activities for the field investigation were performed by Aquifer Drilling & Testing, Inc. of New Hyde Park, New York. Oversight of drilling activities was performed by Mr. John Lacanlale, Senior Environmental Scientist of LBA. Laboratory analyses were provided by Hampton-Clarke Veritech (HC-V) of Fairfield, New Jersey which is a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP)-certified analytical laboratory (No. 11408). Field derived Quality Assurance/Quality Control samples (i.e. field blanks, trip blanks, and duplicates) were collected for this project. The field investigation was conducted between August 1, 2011 and September 23, 2011 and consisted of the following components:

- The advancement of 31 soil borings (SB01 through SB31) to a maximum depth of ten (10) feet below ground surface (ft bgs). Borings were advanced using a Geoprobe direct push drill rig. Soil samples were collected using 5-foot long, 2-inch diameter Macro Core stainless steel samplers equipped with acetate sleeves. Six (6) temporary well points (TWPs) were installed in soil borings SB07, SB10, SB13, SB15, SB20 and SB24. For the installation of the TWPs, the Geoprobe unit was advanced to a maximum depth of 10 ft bgs, approximately four and a half (4.5) feet below the encountered water table. Each TWP consisted of a 10-foot length screen section of one-inch diameter schedule 40 PVC. A groundwater sample was collected from each TWP for screening and laboratory analysis via dedicated Teflon tubing and a peristaltic pump;
- Field screening, classification and identification of soils from the ground surface to the bottom of each boring. Soil samples were visually classified in the field using the USCS soil classification system. Field screening consisted of visual and olfactory indicators of impacts as well as screening with a photoionization detector (PID);
- The collection of one (1) composite and one (1) grab sample from borings in the vicinity of "High" risk sites (SB04 through SB07, SB10, SB13 through SB17, and SB19 through SB29) and the collection of one (1) composite and one (1) grab sample from borings advanced in the vicinity of "Moderate" risk sites (SB01 through SB03, SB08, SB09, SB11, SB12, SB18, SB30 and SB31). Evidence of contamination was found in soil borings SB15 and SB22. The composite samples taken from the soil borings were comprised of soil from the entire

boring column. The grab samples were collected from either the 6-inch interval above the watertable or the 6-inch interval exhibiting the highest evidence of contamination;

- Composite samples collected from the borings were analyzed for: (1) Target Compound List (TCL) base neutral/acid (BN/A) extractable semi-volatile organic compounds (SVOCs) by United States Environmental Protection Agency (EPA) Method 8270; (2) Target Analyte List (TAL) metals by EPA Method 6010B; (3) TCL herbicides and pesticides by EPA Method 8151A and 8081A; and (4) TCL polychlorinated biphenyls (PCBs) by EPA Method 8082. The grab samples collected from the borings were analyzed for TCL volatile organic compounds (VOCs) by EPA Method 8260;
- The collection of eight (8) composite waste characterization soil samples (TCLP01 through TCLP08). Composite sample TCLP01 was generated by compositing aliquots of SB01 through SB07; composite sample TCLP02 was collected from SB08 through SB11; composite sample TCLP03 was collected from SB12 and SB13; composite sample TCLP04 was collected from SB14 through SB16; composite sample TCLP05 was collected from SB17 and SB18; composite sample TCLP06 was collected from SB19 through SB21; composite sample TCLP07 was collected from SB22 through SB24; and TCLP08 was collected from SB25 through SB31. The waste characterization samples were analyzed for: (1) the EPA Full Toxicity Characteristics Leaching Procedure (TCLP) parameters by EPA Method SW846; and (2) the Resource Conservation and Recovery Act (RCRA) Characteristics (ignitability, reactivity and corrosivity) by EPA Method SW846;
- The completion of six (6) temporary well points (TWPs) in borings SB07, SB10, SB13, SB15, SB20 and SB24, the collection of six (6) groundwater samples (SB07GW, SB10GW, SB13GW, SB15GW, SB20GW and SB24GW) from the TWPs and the laboratory analysis of the samples for: (1) TCL VOCs by EPA Method 8260; (2) TCL BN/A SVOCs by United States Environmental Protection Agency (EPA) Method 8270; (3) TAL metals by EPA Method 6010B; (4) TCL herbicides and pesticides by EPA Method 8151A and 8081A; and (5) TCL polychlorinated PCBs by EPA Method 8082; and (6) the parameters published by the NYCDEP as Limitations for Effluent to Sanitary or Combined Sewers (NYCDEP Sewer Discharge Criteria); and
- The preparation of this report, which includes tables summarizing the laboratory analytical results and figures depicting boring locations, significant site features and, if applicable, contamination occurrence and distribution.

2.0 CORRIDOR INFORMATION

2.1 Corridor Location, Description and Use

The Corridor is located in the Coney Island section of the Borough of Brooklyn, New York. The Corridor consists of the general area bounded by Neptune Avenue and Hart Place to the north, West 12th Street to the east, Surf Avenue to the south, and West 28th Street to the west. The perimeter of the Corridor is approximately 3.2 miles and the entire Corridor is developed with paved roadways, and existing infrastructure systems.

Manhole covers, asphalt patches, sidewalk lights and street lights are visible in roadway and sidewalk areas throughout the Corridor, and indicate the presence of multiple buried utilities including sewer, electric, water, gas and communications.

Property usage within the area of the Corridor consists of a mix of residential, commercial and institutional properties. Multiple automotive repair facilities ("High" risk) as well as Hess, Mobile and Shell gas stations ("High" risk) are concentrated on Cropsey Avenue and Neptune Avenue along the northern boundary of the Corridor. High-rise residential apartments and single residential homes ("Low" risk) are generally located on the numbered streets (i.e. 20th Street, 19th Street, etc.) throughout the Corridor. Commercial properties are generally concentrated along Surf Avenue, Stillwell Avenue, Mermaid Avenue and Neptune Avenue with residential apartments above the storefronts. Brooklyn's 60th Precinct Police Station ("High" risk) and Engine 245 Fire House ("High" risk) are located on 8th Street, in the eastern portion of the Corridor. Coney Island Aquarium ("High" risk) is located in the southeastern corner of the Corridor between Surf Avenue and Boardwalk. Multiple educational institutions ("Moderate" risk) are located throughout the Corridor.

2.2 Description of Surrounding Properties

The Corridor is surrounded by a mix of residential, commercial and institutional properties. South of Boardwalk is the Coney Island Public Beach. Surrounding the Corridor to the north of Neptune Avenue is Coney Island Creek. Surrounding the Corridor west of 28th Street are residential and commercial properties. East of 8th Street is the Trump Village Shopping Center with additional commercial and residential properties.

2.3 Corridor and Regional Topographic Setting

The United States Geologic Survey (USGS) 7.5-minute Topographic Quadrangle map for Coney Island, N.Y – N.J. (1966) (Figure 1) shows that topography within the West 8th Street Corridor is generally flat, with an average elevation of approximately 10 feet above mean sea level (amsl). Surface runoff is expected to flow into storm drains and ultimately discharge to either Gravesend Bay, located approximately 5,000 feet to the northwest, or the Atlantic Ocean, located 500 feet to the south.

2.4 Corridor and Regional Geology

During this Phase II SCI, the Corridor was found to be underlain by at least five (5) feet of non-native fill material in the vicinity of SB07, SB09, SB21 and SB29. The fill layer consists of pale yellowish brown to dark yellowish brown medium to fine sand and little coarse to fine gravel with traces of silt. Construction debris in the form of brick pieces were observed within the fill layer. The remainder of the Corridor is underlain primarily by reworked native soils to depths of at least five (5) ft bgs. The reworked soil is comprised mainly of pale yellowish brown to dark yellowish brown medium to fine sand and little coarse to fine gravel with traces of silt. Beneath the fill materials and reworked soils, native soils along the Corridor are comprised of pale yellowish brown medium to fine sand with traces of silt at depths up to ten (10) ft bgs. Bedrock was not encountered during this Phase II SCI; however, bedrock is anticipated to be at approximately 600 to 650 ft bgs along the Corridor.

The *NYC Reconnaissance Soil Survey* (2005) indicates that three (3) soil types underlie the Corridor: the Hooksan-Verrazano-Pavement and buildings complex; the Pavement & buildings, wet substratum-Bigapple-Verrazano complex; and the Laguardia-Ebbets-Pavement and buildings, wet substratum complex. The Hooksan-Verrazano-Pavement and buildings complex underlies a majority of the Corridor. This complex consists of nearly level to gently sloping areas of dune deposits that have been cut and filled, mostly for parking and light residential use. Impervious surfaces account for approximately 15 to 49 percent of this complex. The Pavement & buildings, wet substratum-Bigapple-Verrazano complex is present in a narrow strip from the western edge of the Corridor to the northern edge of the Corridor. This complex consists of nearly level to gently sloping areas where sandy dredge materials have been placed over natural swamp, tidal marsh or open water. Impervious surfaces such as asphalt, concrete, and buildings account for approximately 50 to 80 percent of this complex. The Laguardia-Ebbets-Pavement and buildings, wet substratum complex underlies the northwest corner of the Corridor. This complex consists of nearly level to gently sloping areas of natural soils and fill material over anthropogenic soils of varying coarse fragments; impervious surfaces account for approximately 15 to 49 percent of this complex.

According to *the Surficial Geologic Map of New York, Lower Hudson Sheet*, these surficial soils are underlain by recent beach deposits and barrier island sediments consisting primarily of sand and gravel (Caldwell, 1991). These beach and barrier island deposits are in turn underlain by glacial deposits of Pleistocene age, and are estimated to be approximately 170 feet thick in this area. The Gardeners Clay, which is also Pleistocene in age, is composed of greenish-gray clay and silt, with thin sand layers throughout. The Gardeners Clay is approximately 30 feet thick in the vicinity of the Corridor, and is considered a major confining unit between the overlying glacial aquifer and the underlying aquifers (Cartwright 2002). Beneath the Gardner's Clay is the Jameco Gravel, which is dark colored, coarse to fine sand, intermixed with gravel, cobbles and boulders. The Jameco Gravel primarily consists of channel fill deposits and is approximately 25 feet thick. The Cretaceous Magothy-Matawan Formation, which consists of light colored quartzose sand, gravel and large pebbles, is present beneath the Jameco Gravel. The Magothy-Matawan is approximately 155 feet thick in the vicinity of the Corridor (Cartwright, 2002).



2.5 Corridor and Regional Hydrogeology

No State or Federal wetlands are located within the Corridor. However, Estuarine and Marine / Marine Deep Water wetlands are located just south of the Corridor along Coney Island Beach. In addition, Estuarine and Marine Deepwater wetlands are also located north of the Corridor along Gravesend Bay. Specifically, the three (3) proposed outfalls are situated within these Estuarine and Marine Deepwater wetlands. The wetlands at this location are classified as deepwater tidal habitat and adjacent wetlands, which are continuously submerged by tidal waters. The nearest surface water bodies to the Corridor are the Atlantic Ocean, which is located along the southern edge of the Corridor, and Gravesend Bay and Coney Island Creek, which border the northern end of the Corridor. Based on the land elevation of the Corridor and the elevation of the surrounding surface water bodies, groundwater is anticipated to be present at less than five (5) feet bgs. Under natural conditions, groundwater would be expected to be divided, with groundwater under the northern portion of the Corridor flowing north to Gravesend Bay, and groundwater under the southern portion of the Corridor flowing south towards the Atlantic Ocean. However, groundwater flow directions may vary due to tidal influence, seasonal fluctuations in precipitation, local usage demands, underground utilities, or dewatering operations.

3.0 CORRIDOR EVALUATION

Proposed construction activities within the Corridor include soil excavation and may include dewatering, which in-turn requires that soils and groundwater at the site be characterized to identify material handling requirements (i.e. use of protective equipment) and for material reuse, handling and/or waste disposal requirements. LBA provided oversight for the advancement of 31 soil borings, the installation of six (6) TWP, and the collection of soil and groundwater samples during the field investigation at the designated areas in the vicinity of the planned construction. The soil and groundwater samples from the borings and TWPs were transferred into laboratory supplied sample jars, properly labeled and stored with ice in a cooler to preserve the samples at 4° Celsius prior to and during shipment. A chain-of-custody was prepared prior to sample shipment. A summary of the field observations, including the location of the sites and the details of the soil borings, is provided in Table 1.

3.1 Soil Quality Investigation

Thirty-one (31) soil borings (SB01 through SB31) were advanced to a maximum depth of ten (10) ft bgs, using a Geoprobe direct push drill rig. Prior to direct push advancement, borings were cleared to a depth of five (5) ft bgs using a hand auger, post hole digger, air knife, vacuum excavator or a combination thereof. Soil was recovered using a 5-foot long, 2-inch diameter Macro Core stainless steel sampler equipped with disposable acetate sleeves. Soil boring locations are depicted on Figures 4, 5 and 6. The designations and sampling intervals for the samples that were submitted to the laboratory are included in Table 1. Maps depicting each boring location are included in Appendix A. Boring logs are provided in Appendix B. The locations of each boring are described below:

- **SB01** –Advanced in the vicinity of a “Moderate” risk site and located on the sidewalk along the west side of West 15th Street, 56 feet north of the northwest corner of the intersection of Surf Avenue and West 15th Street and 2 feet west of the curb along the west side of West 15th Street.
- **SB02** –Advanced in the vicinity of a “Moderate” risk site and located on the sidewalk along the east side of West 15th Street, 68 feet south of the southeast corner of the intersection of Mermaid Avenue and West 15th Street and 1 foot east of the curb along the east side of West 15th Street.
- **SB03** –Advanced in the vicinity of a “High” risk site and located on the sidewalk along the west side of West 15th Street, 192 feet south of the southwest corner of the intersection of Neptune Avenue and West 15th Street and 3 feet west of the curb along the west side of West 15th Street.
- **SB04** – Advanced in the vicinity of a “High” risk site and located on the sidewalk along the west side of West 15th Street, 41 feet south of the southwest corner of the intersection



of Neptune Avenue and West 15th Street and 4.5 feet west of the curb along the west side of West 15th Street.

- **SB05** – Advanced in the vicinity of a “High” risk site and located on the sidewalk along the east side of West 15th Street, 102 feet north of the northeast corner of the intersection of Neptune Avenue and West 15th Street and 2.5 feet east of the curb along the east side of West 15th Street.
- **SB06** – Advanced in the vicinity of a “High” risk site and located on the sidewalk along the west side of West 15th Street, 214 feet north of the northwest corner of the intersection of Neptune Avenue and West 15th Street and 1 foot west of the curb along the west side of West 15th Street.
- **SB07** – Advanced in the vicinity of a “High” risk site and located on the sidewalk along the east side of West 15th Street, 183 feet north of the southwest corner of the intersection of Hart Place and West 15th Street and 6.5 feet east of the curb along the east side of West 15th Street.
- **SB08** – Advanced in the vicinity of a “Moderate” risk site and located on the sidewalk along the north side of Surf Avenue, 87 feet east of the northeast corner of the intersection of Surf Avenue and West 16th Street and 1 foot north of the curb along the north side of Surf Avenue.
- **SB09** – Advanced in the vicinity of a “Moderate” risk site and located on the sidewalk along the north side of Surf Avenue, 118 feet east of the northeast corner of the intersection of Surf Avenue and West 15th Street and 4 feet north of the curb along the north side of Surf Avenue.
- **SB10** – Advanced in the vicinity of a “High” risk site and located on the sidewalk along the south side of Surf Avenue, 173 feet east of the southeast corner of the intersection of Surf Avenue and Stillwell Avenue and 3 feet south of the curb along the south side of Surf Avenue.
- **SB11** – Advanced in the vicinity of a “Moderate” risk site and located on the sidewalk along the north side of Surf Avenue, 31 feet west of the northwest corner of the intersection of Surf Avenue and West 12th Street and 6.5 feet north of the curb along the north side of Surf Avenue.
- **SB12** – Advanced in the vicinity of a “Moderate” risk site and located on the sidewalk along the north side of Surf Avenue, 62 feet east of the northeast corner of the

intersection of Surf Avenue and West 22nd Street and 2 feet north of the curb along the north side of Surf Avenue.

- **SB13** – Advanced in the vicinity of a “High” risk site and located on the sidewalk along the north side of Surf Avenue, 84 feet west of the northwest corner of the intersection of Surf Avenue and West 20th Street and 7 feet north of the curb along the north side of Surf Avenue.
- **SB14** – Advanced in the vicinity of a “Moderate” risk site and located on the sidewalk along the west side of West 21st Street, 200 feet north of the northwest corner of the intersection of Surf Avenue and West 21st Street and 4 feet west of the curb along the west side of West 21st Street.
- **SB15** – Advanced in the vicinity of a “High” risk site and located on the sidewalk along the east side of West 21st Street, 209 feet south of the southeast corner of the intersection of Neptune Avenue and West 21st Street and 11 feet east of the curb along the east side of West 21st Street.
- **SB16** – Advanced in the vicinity of a “High” risk site and located on the sidewalk along the east side of West 21st Street, 57 feet south of the southeast corner of the intersection of Neptune Avenue and West 21st Street and 10 feet east of the curb along the east side of West 21st Street.
- **SB17** – Advanced in the vicinity of a “Moderate” risk site and located on the sidewalk along the south side of Mermaid Avenue, 70 feet west of the southwest corner of the intersection of Mermaid Avenue and West 23rd Street and 2 feet south of the curb along the south side of Mermaid Avenue.
- **SB18** – Advanced in the vicinity of a “Moderate” risk site and located on the sidewalk along the south side of Mermaid Avenue, 75 feet west of the southwest corner of the intersection of Mermaid Avenue and West 21st Street and 6 feet south of the curb along the south side of Mermaid Avenue.
- **SB19** – Advanced in the vicinity of a “High” risk site and located on the roadway along the east side of West 22nd Street, 5.5 feet north of the northeast corner of the intersection of Neptune Avenue and West 22nd Street and 4 feet west of the curb along the east side of West 22nd Street.
- **SB20** – Advanced in the vicinity of a “High” risk site and located on the sidewalk along the south side of Neptune Avenue, 126.5 feet west of the southwest corner of the

intersection of Neptune Avenue and West 20th Street and 11 feet south of the curb along the south side of Neptune Avenue.

- **SB21** – Advanced in the vicinity of a “High” risk site and located on the sidewalk along the north side of Neptune Avenue, 106 feet west of the northwest corner of the intersection of Neptune Avenue and West 20th Street and 6.5 feet north of the curb along the north side of Neptune Avenue.
- **SB22** – Advanced in the vicinity of a “High” risk site and located on the sidewalk along the north side of Neptune Avenue, 55 feet east of the northeast corner of the intersection of Neptune Avenue and Stillwell Avenue and 2.5 feet north of the curb along the north side of Neptune Avenue.
- **SB23** – Advanced in the vicinity of a “High” risk site and located on the sidewalk along the north side of Neptune Avenue, 197 feet west of the northwest corner of the intersection of Neptune Avenue and West 12th Street and 3 feet north of the curb along the north side of Neptune Avenue.
- **SB24** – Advanced in the vicinity of a “High” risk site and located on the sidewalk along the north side of Neptune Avenue, 41 feet west of the northwest corner of the intersection of Neptune Avenue and West 12th Street and 2.5 feet north of the curb along the north side of Neptune Avenue.
- **SB25** – Advanced in the vicinity of a “High” risk site and located on the sidewalk along the west side of Stillwell Avenue, 238 feet north of the northwest corner of the intersection of Neptune Avenue and Surf Avenue and 4 feet west of the curb along the west side of Stillwell Avenue.
- **SB26** – Advanced in the vicinity of a “High” risk site and located on the sidewalk along the west side of Stillwell Avenue, 300 feet south of the southwest corner of the intersection of Neptune Avenue and Stillwell Avenue and 2 feet west of the curb along the west side of Stillwell Avenue.
- **SB27** – Advanced in the vicinity of a “High” risk site and located on the sidewalk along the west side of Stillwell Avenue, 166 feet north of the northwest corner of the intersection of Mermaid Avenue and Stillwell Avenue and 2 feet west of the curb along the west side of Stillwell Avenue.
- **SB28** – Advanced in the vicinity of a “High” risk site and located on the roadway along the west side of Stillwell Avenue, 74 feet north of the northwest corner of the intersection

of Neptune Avenue and Stillwell Avenue and 16 feet east of the curb along the west side of Stillwell Avenue.

- **SB29** – Advanced in the vicinity of a “High” risk site and located on the sidewalk along the west side of Stillwell Avenue, 225 feet south of the southwest corner of the intersection of Neptune Avenue and Stillwell Avenue and 2.5 feet west of the curb along the west side of Stillwell Avenue.
- **SB30** – Advanced in the vicinity of a “Moderate” risk site and located on the sidewalk along the east side of Stillwell Avenue, 211 feet north of the northeast corner of the intersection of Neptune Avenue and Stillwell Avenue and 4.5 feet east of the curb along the east side of Stillwell Avenue.
- **SB31** – Advanced in the vicinity of a “Moderate” risk site and located on the sidewalk along the west side of Stillwell Avenue, 73 feet south of the southwest corner of the intersection of Mermaid Avenue and Stillwell Avenue and 2.5 feet west of the curb along the west side of Stillwell Avenue.

Soil from each boring was classified and examined for visual evidence (i.e. staining, discoloration) and any olfactory indications (i.e. odors) of contamination. Continuous soil cores were collected from each of the borings at 5-foot intervals. In addition, a PID was used to screen the soil for VOC vapors.

In order to identify representative conditions relative to the presence of SVOCs, metals, herbicides, pesticides and PCBs over the entire soil column in each boring, composite soil samples were collected by mixing the soil from the entire column in a stainless steel bowl. Boring composite samples were taken from locations SB01 through SB31 advanced in the vicinity of a “Moderate” and “High” risk site identified in LBA’s Phase I CAR. Evidence of contamination was found in soil borings SB15 and SB22.

In order to identify representative conditions relative to the presence of VOCs, a grab soil sample was collected from 6-inch interval above the water table of borings SB01 through SB31.

In order to identify representative conditions for disposal purposes, eight (8) waste classification samples (TCLP01 through TCLP08) were collected. Composite sample TCLP01 was generated by compositing aliquots of SB01 through SB07; composite sample TCLP02 was collected from SB08 through SB11; composite sample TCLP03 was collected from SB12 and SB13; composite sample TCLP04 was collected from SB14 through SB16; composite sample TCLP05 was collected from SB17 and SB18; composite sample TCLP06 was collected from SB19 through SB21; composite sample TCLP07 was collected from SB22 through SB24; and TCLP08 was collected from SB25 through SB31.



Soil classification information, including stratigraphy, is documented on the boring logs included in Appendix B. All boring equipment was cleaned by being rinsed with tap water, scrubbed with Alconox, then rinsed with deionized water again between each sample interval. In addition, a disposable acetate liner was used inside the sampler for recovery of the soil cores. Following the completion of each boring, the boreholes were back-filled with drill cuttings, and then sealed with asphalt, if appropriate.

3.2 Groundwater Quality Investigation

As groundwater may be encountered within the depths associated with the future excavation, six (6) groundwater samples were collected for screening and laboratory analysis during the soil boring activities. A TWP was installed in soil borings SB07, SB10, SB13, SB15, SB20 and SB24. Groundwater was encountered at approximately six (6) ft bgs. For the installation of the TWPs, the Geoprobe unit was advanced to a maximum depth of 10 ft bgs, approximately 4 to 5 feet into the encountered water table. The TWPs consisted of a 10-foot length screen section of one-inch diameter schedule 40 PVC. A groundwater sample was collected for screening and laboratory analysis via dedicated Teflon tubing and check valves. All tubing was new, clean, and unused then properly disposed of after use. Upon extraction, samples were examined for visual evidence (i.e., discoloration, sheen) and any olfactory indications (i.e. odors) of contamination and noted in the field book.

A summary of the field observations and measurements recorded from each TWP is provided in Appendix B. The TWP locations are depicted on Figures 4, 5 and 6.

3.3 Laboratory Analyses

Soil and groundwater samples were submitted to Hampton-Clarke Veritech (HC-V) of Fairfield, New Jersey which is a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP)-certified analytical laboratory (No. 11408). Field derived Quality Assurance/Quality Control samples (i.e. field blank, trip blank, duplicate) were collected for this project. Two (2) soil and one (1) groundwater duplicate sample and one (1) groundwater field blank were collected. Laboratory analytical reports are included in Appendix C.

The grab soil sample collected from SB01 through SB31 was analyzed for USEPA TCL VOCs by Method 8260. The boring composite soil samples were analyzed for: (1) TCL BN/A extractable SVOCs by EPA Method 8270; (2) TAL metals by EPA Method 6010B (both filtered and unfiltered); (3) TCL pesticides by EPA Method 8081A; herbicides by EPA Method 8151A; and (5) PCBs by EPA Method 8082.

Waste characterization soil samples were analyzed for: (1) EPA Full TCLP parameters and (2) RCRA Characteristics (ignitability, reactivity and corrosivity).

Groundwater samples were analyzed for (1) TCL VOCs by EPA Method 8260; (2) TCL BN/A SVOCs by United States Environmental Protection Agency (EPA) Method 8270; (3) TAL metals by EPA Method 6010B; (4) TCL herbicides and pesticides by EPA Method 8151A and



8081A; and (5) TCL polychlorinated PCBs by EPA Method 8082; and (6) the parameters published by the NYCDEP as Limitations for Effluent to Sanitary or Combined Sewers.

3.4 Data Evaluation

In order to evaluate subsurface soil quality, laboratory analytical results of grab and composite soil samples were compared with regulatory standards identified in: (1) NYSDEC Subpart 375-6: Remedial Program Unrestricted Use (Track 1) and Residential and Commercial Use (Track 2) Soil Cleanup Objectives (SCOs) and (2) NYSDEC CP-51 Soil Cleanup Guidance Supplemental Soil Cleanup Objectives (SSCOs) to NYSDEC Subpart 375-6. The laboratory analytical results of the waste classification soil samples were compared with the Toxicity Characteristic Regulatory Levels for Hazardous Waste published in RCRA and NYSDEC Part 371. The analytical results of the groundwater samples were compared to (1) NYSEC Class GA Groundwater Standards and Guidance Values as per NYSDEC Technical and Operational Guidance Series (TOGS) and (2) the NYCDEP Sewer Discharge Criteria.

4.0 FINDINGS

This section discusses the analytical data and findings for activities discussed in Section 3.0. Boring logs and well installation records can be found in Appendix B. Complete analytical data reports are included in Appendix C.

4.1 Field Screening

Field screening consisted of visual and olfactory indicators of impacts as well as screening with a PID. Visual and olfactory evidence of possible petroleum contamination was observed and PID readings of 63.5 ppm and 1,379 ppm were detected in soil borings SB15 and SB22, respectively. No evidence of visual or olfactory contamination was observed and PID readings were not detected above the background level of 1 ppm at any other soil boring location. Refer to Table 1 for a summary of environmental boring data.

4.2 Soil and Groundwater Laboratory Analytical Results

4.2.1 Volatile Organic Compounds (VOCs) in Soil

Laboratory results indicate concentrations of acetone in sample SB06 and ethylbenzene and total xylene in SB22 in excess of the Unrestricted Use (Track 1) SCOs. Acetone is a common laboratory contaminant and the exceedance of acetone in sample SB06 may be partially attributed to laboratory usage in addition to contaminants in fill material beneath the Corridor or native soils which have been reworked and replaced. Ethylbenzene and total xylene are commonly found in gasoline. Soil boring SB22 was advanced in the vicinity of NYCT's Stillwell Avenue station and the exceedances of ethylbenzene and total xylene may be attributed to historic and ongoing site operations and may also be attributed to contaminants in fill material beneath the Corridor or native soils which have been reworked and replaced. Refer to Table 2 for a summary of VOC detections.

4.2.2 Semi-Volatile Organic Compounds (SVOCs) in Soil

Several SVOC compounds were detected at concentrations above regulatory standards in soil samples SB06, SB07, SB21, SB23, SB24, SB26 and SB29. Most exceedances are in the form of polycyclic aromatic hydrocarbons (PAHs) which are commonly found in asphalt, vehicle exhaust and petroleum byproducts and are common contaminants in urban fill material.

Compounds that exceed the Unrestricted Use (Track 1) and Residential Use (Track 2) SCOs include benzo(a)anthracene in SB06 and SB07; benzo(b)fluoranthene in SB06, SB07, SB23, SB24, SB26 and SB29; benzo(k)fluoranthene in SB21; chrysene in SB06, SB07, SB21, SB24 and SB26; dibenz(a,h)anthracene in SB06, SB24 and SB26; and indeno(1,2,3-cd)pyrene in SB06, SB07, SB23, SB24, SB26 and SB29.

Compounds that exceed the Commercial Use (Track 2) SCOs consisted of benzo(a)anthracene in SB21; benzo(a)pyrene in SB06, SB07, SB21, SB24, SB26 and SB29; benzo(b)fluoranthene in SB21; dibenz(a,h)anthracene in SB21; and indeno(1,2,3-cd)pyrene in SB21.

Lithology shows that the sample collection locations SB07, SB09, SB21 and SB29 fall within the ubiquitous historical fill material at the Corridor and that the remainder of the Corridor is underlain by at least five (5) feet of reworked native soil. Therefore, detected concentrations of SVOCs in these soil samples may be attributed to contaminants in fill material beneath the Corridor, native soils having been reworked and replaced during construction or renovation, and may also be partially attributed to impacted stormwater runoff. Refer to Table 3 for a summary of SVOC detections.

4.2.3 Target Analyte List Metals (TAL Metals) in Soil

Several metals were detected at concentrations above regulatory standards in soil samples SB06, SB07, SB16, SB21, SB23, SB24, and SB26 through SB30.

Copper, lead, manganese, mercury and zinc were detected above the Unrestricted Use (Track 1) SCOs at multiple locations. In addition, concentrations of mercury in sample SB06 and lead in sample SB26 exceeded the Residential Use (Track 2) SCOs. Arsenic in sample SB21 and mercury in sample SB23 exceeded the Commercial Use (Track 1) SCOs. Exceedances for lead were detected at concentrations between 77 and 410 ppm. TCLP analysis on composite waste classification samples TCLP01 through TCLP08 indicates that soil beneath the surface of the Corridor is nonhazardous. Elevated metals levels may be attributed to contaminants in urban fill material, native soils having been reworked and replaced during construction or renovation and may also be partially attributed to impacted stormwater runoff. Refer to Table 4 for a summary of metals detections.

4.2.4 Pesticides and Herbicides in Soil

Laboratory results indicate exceedances of the Unrestricted Use (Track 1) SCOs for the pesticides 4,4'-DDD in SB13; 4,4'-DDE in SB13, SB14, SB17 and SB29; 4,4'-DDT in SB13, SB14, SB17, SB22 and SB29; and dieldrin in SB13 and SB29. Exceedances of pesticides may be attributed to contaminants in fill material placed along the Corridor, native soils having been reworked and replaced during construction or renovation and may also be attributed to historic usage along the Corridor. Refer to Table 5 for a summary of pesticide detections.

The laboratory results indicate that there are no herbicides present in any of the soil samples collected as part of this Phase II SCI. Refer to Table 6 for a summary of herbicide detections.

4.2.5 PCBs in Soil

The laboratory results indicate that there are no exceedances of PCBs present in any of the soil samples collected as part of this Phase II SCI. Refer to Table 7 for a summary of PCB detections.

4.2.6 Waste Classification of Soil

The composite waste classification samples TCLP01 through TCLP08 were analyzed for USEPA RCRA hazardous waste characteristics including corrosivity, ignitability, reactivity and toxicity. Although exceedances of lead for Unrestricted Use (Track 1) and Residential Use

(Track 2) SCOs were detected throughout the Corridor, results of composite waste classification samples indicate that the soil beneath the Corridor does not exhibit evidence of hazardous waste characteristics. Refer to Table 8 for a summary of TCLP parameters and RCRA characteristics.

4.2.7 Volatile Organic Compounds (VOCs) in Groundwater

Laboratory results indicate that there are no exceedances of VOCs present in any of the groundwater samples collected as part of this Phase II SCI. Refer to Table 9 for a summary of the VOC detections.

4.2.8 Semi-Volatile Organic Compounds (SVOCs) in Groundwater

Laboratory results indicate that there are no exceedances of SVOCs present in any of the groundwater samples collected as part of this Phase II SCI. Refer to Table 10 for a summary of the VOC detections.

4.2.9 Target Analyte List Metals (TAL Metals) in Groundwater

Several metals were detected at concentrations above NYSDEC Class GA Groundwater Standards and Guidance Values in all filtered and unfiltered groundwater samples.

Unfiltered groundwater samples exhibited numerous exceedances which are typical given the increased turbidity of the groundwater during sampling procedures and the leaching of constituents from soil particles due to added acid preservative. TAL metals exceeding the Class GA Groundwater Standards and Guidance Values for the unfiltered groundwater samples include antimony in samples SB10GW and SB20GW; lead in sample SB07GW; magnesium in samples SB13GW, SB15GW, SB20GW and SB24GW; manganese in samples SB07GW and SB15GW; and iron and sodium in all unfiltered groundwater samples. The number of exceedances for filtered groundwater samples was lower and includes antimony in SB10GW-F; magnesium in samples SB13GW-F, SB15GW-F, SB20GW-F and SB24GW-F; manganese in sample SB15GW-F; and sodium in all filtered groundwater samples. Filtered samples exhibited elevated levels of TAL metals which may be attributed to contaminants in urban fill material or native soils having been reworked and replaced during construction or renovation. Refer to Table 11 for a summary of metals detections.

4.2.10 Pesticides and Herbicides in Groundwater

The laboratory results indicate that there are no pesticides present in any of the groundwater samples collected as part of this Phase II SCI. Refer to Table 12 for a summary of pesticide detections.

The laboratory results indicate that there are no herbicides present in any of the groundwater samples collected as part of this Phase II SCI. Refer to Table 13 for a summary of herbicide detections.



4.2.11 PCBs in Groundwater

The laboratory results indicate that there are no PCBs present in any of the groundwater samples collected as part of this Phase II SCI. Refer to Table 14 for a summary of pesticide detections.

4.2.12 Analysis of NYCDEP Parameters in Groundwater

The six (6) groundwater samples SB07GW, SB10GW, SB13GW, SB15GW, SB20GW and SB24GW were analyzed for the parameters required by the NYCDEP Limitations for Effluent to Sanitary or Combined Sewers (Daily Limit). No exceedances of NYCDEP Sewer Discharge Criteria were reported. Refer to Table 15 for a summary of selected NYCDEP parameters in groundwater.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the evaluation of the field screening data and the laboratory analytical results, and a comparison to applicable regulatory standards, the following conclusions are presented:

- Visual and olfactory evidence of possible petroleum contamination was observed in soil borings SB15 and SB22. In addition, PID readings of 63.5 ppm and 1,379 ppm were detected in soil borings SB15 and SB22, respectively. No visual or olfactory evidence of possible petroleum contamination was observed in any of the remaining soil borings and no other PID readings were detected above the background level of 1 ppm in any of the remaining soil borings;
- The Corridor was found to be underlain by at least five (5) feet of non-native fill material in the vicinity of SB07, SB09, SB21 and SB29. The fill layer consists of pale yellowish brown to dark yellowish brown medium to fine sand and little coarse to fine gravel with traces of silt. Construction debris in the form of concrete and brick pieces were observed within the fill layer. The remainder of the Corridor is underlain primarily by reworked native soils to depths of at least five (5) ft bgs. The reworked soil is comprised mainly of pale yellowish brown to dark yellowish brown medium to fine sand and little coarse to fine gravel with traces of silt. Beneath these fill materials and reworked soils, native soils along the Corridor are comprised of pale yellowish brown medium to fine sand with traces of silt at depths up to ten (10) ft bgs. Groundwater was observed at approximately six (6) ft bgs;
- Laboratory results indicate concentrations of acetone in sample SB06 and ethylbenzene and total xylene in SB22 in excess of the Unrestricted Use (Track 1) SCOs. Acetone is a common laboratory contaminant and the exceedances of acetone in sample SB06 may be attributed to laboratory usage. Soil boring SB22 was advanced in the vicinity of NYCT's Stillwell Avenue station and the exceedances of ethylbenzene and total xylene may be attributed to historic and ongoing site operations and may also be attributed to contaminants in fill material beneath the Corridor or native soils which have been reworked and replaced;
- Several SVOC compounds were detected at concentrations above regulatory standards in soil samples SB06, SB07, SB21, SB23, SB24, SB26 and SB29. Compounds that exceed the Unrestricted Use (Track 1) and Residential Use (Track 2) SCOs include benzo(a)anthracene in SB06 and SB07; benzo(b)fluoranthene in SB06, SB07, SB23, SB24, SB26 and SB29; benzo(k)fluoranthene in SB21; chrysene in SB06, SB07, SB21, SB24 and SB26; dibenz(a,h)anthracene in SB06, SB24 and SB26; and indeno(1,2,3-cd)pyrene in SB06, SB07, SB23, SB24, SB26 and SB29. Compounds that exceeded the Commercial Use (Track 1) SCOs include benzo(a)pyrene in SB06, SB07, SB21, SB24, SB26 and SB29; and benzo(b)fluoranthene, dibenz(a,h)anthracene and indeno(1,2,3-cd)pyrene in SB21. Lithology shows that the sample collection locations SB07, SB09, SB21 and SB29 fall within the ubiquitous historical fill material at the Corridor and that the remainder of the Corridor is underlain by at least five (5) feet of reworked native soil. Therefore, detected concentrations of SVOCs in these soil samples may be attributed to contaminants in fill material beneath the

Corridor, native soils having been reworked and replaced during construction or renovation, and may also be partially attributed to stormwater runoff;

- Several metals were detected at concentrations above regulatory standards in soil samples SB06, SB07, SB16, SB21, SB23, SB24, and SB26 through SB30. Copper, lead, manganese, mercury and zinc were detected above the Unrestricted Use (Track 1) SCOs at multiple locations. In addition, concentrations of mercury in sample SB06 and lead in sample SB26 exceed the Residential Use (Track 2) SCOs. Arsenic in sample SB21 and Mercury in sample SB23 exceeded the Commercial Use (Track 1) SCOs. Exceedances for lead were detected at concentrations between 77 and 410 ppm. Elevated metals levels may be attributed to contaminants in urban fill material, native soils having been reworked and replaced during construction or renovation and may also be partially attributed to stormwater runoff;
- Laboratory results indicate exceedances of the Unrestricted Use (Track 1) SCOs for the pesticides 4,4'-DDD in SB13; 4,4'-DDE in SB13, SB14, SB17 and SB29; 4,4'-DDT in SB13, SB14, SB17, SB22 and SB29; and dieldrin in SB13 and SB29. Exceedances of pesticides may be attributed to contaminants in fill material placed along the Corridor, native soils having been reworked and replaced during construction or renovation and may also be attributed to historic usage along the Corridor. Refer to Table 5 for a summary of pesticide detections
- The composite waste classification samples TCLP01 through TCLP08 were analyzed for USEPA RCRA hazardous waste characteristics including corrosivity, ignitability, reactivity and toxicity. Although exceedances of lead for Unrestricted Use (Track 1) and Residential Use (Track 2) SCOs were detected throughout the Corridor, results of composite waste classification samples indicate that the soil beneath the Corridor does not exhibit evidence of hazardous waste characteristics;
- Several metals were detected at concentrations above NYSDEC Class GA Groundwater Standards and Guidance Values in all groundwater samples. Unfiltered groundwater samples exhibited numerous exceedances which are typical given the increased turbidity of the groundwater during sampling procedures and the leaching of constituents from soil particles due to added acid preservative. TAL metals exceeding the Class GA Groundwater Standards and Guidance Values for the unfiltered groundwater samples include antimony in samples SB10GW and SB20GW; lead in sample SB07GW; magnesium in samples SB13GW, SB15GW, SB20GW and SB24GW; manganese in samples SB07GW and SB15GW; and iron and sodium in all unfiltered groundwater samples. The number of exceedances for filtered groundwater samples was lower and includes antimony in SB10GW-F; magnesium in samples SB13GW-F, SB15GW-F, SB20GW-F and SB24GW-F; manganese in sample SB15GW-F; and sodium in all filtered groundwater samples. Filtered samples exhibited elevated levels of TAL metals which may be attributed to contaminants in urban fill material or native soils having been reworked and replaced during construction or renovation; and



- Groundwater was encountered at approximately six (6) ft bgs. The six (6) groundwater samples SB07GW, SB10GW, SB13GW, SB15GW, SB20GW and SB24GW were analyzed for the parameters required by the NYCDEP Limitations for Effluent to Sanitary or Combined Sewers (Daily Limit). No exceedances of NYCDEP Sewer Discharge Criteria were reported.

Based on the results of the field investigation and laboratory analytical results, LBA recommends the following:

- The Contract documents should identify provisions and a contingency for managing, handling, transporting and disposing of VOC, SVOC, pesticide, lead and metals-impacted hazardous and non-hazardous soil. The Contractor should be required to submit a Material Handling Plan, to identify the specific protocol and procedures that will be employed to manage the waste in accordance with applicable regulations;
- Dust control procedures are recommended during excavation activities to minimize the creation and dispersion of fugitive airborne dust. The Contractor may implement dust control measures to minimize potential airborne contaminants released as a direct result of construction activities. A Community Air Monitoring Plan (CAMP) shall be developed in accordance with NYSDEC DER-10 Regulations. The CAMP requires real-time monitoring for particulates (i.e., dust, VOCs, etc.) at the downwind perimeter of each designated work area when certain activities are in progress at contaminated sites. The CAMP is intended to provide a measure of protection for the downwind community from potential airborne contaminant releases as a direct result of investigative and remedial work activities. Specific requirements shall be reviewed for each situation in consultation with NYSDOH to ensure proper applicability;
- Based on the observed depth to groundwater (6 ft bgs) dewatering may be necessary during construction activities in the Corridor. Based on the results of laboratory analyses for NYCDEP sewer discharge criteria, groundwater may not require pretreatment prior to discharge to sanitary or combined sewers; however, the contractor will be required to obtain a NYCDEP sewer discharge permit and perform sampling and laboratory analysis prior to discharge into sanitary and combined sewers;
- In addition, if discharge into storm sewers is required during dewatering, it must be done under the appropriate NYSDEC State Pollutant Discharge Elimination System (SPDES) permit. Additional sampling and laboratory analysis will be required to satisfy NYSDEC requirements prior to discharge into storm sewers; and
- Before beginning any excavation activity, the contractor shall submit a site-specific health and safety plan (HASP) that will meet the requirements set forth by the Occupational, Safety and Health Administration (OSHA), the New York State Department of Health (NYSDOH) and any other applicable regulations. The HASP should identify the possible locations and risks associated with the potential contaminants that may be encountered, and the




administrative and engineering controls that will be utilized to mitigate concerns (i.e. dust control procedures for metals).



6.0 STATEMENT OF LIMITATIONS

The data presented and the opinions expressed in this report are qualified as stated in the attachment to this section of the report.

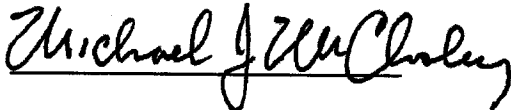
Report Prepared By:



Evan Mankoff, P.G.

Manager, Subsurface Investigations

Report Reviewed By:



Michael J. McCloskey, PG

QA/QC Manager



STATEMENT OF LIMITATIONS

The data presented and the opinions expressed in this report are qualified as follows:

The sole purpose of the investigation and of this report is to assess the physical characteristics of the Site with respect to the presence or absence in the environment of oil or hazardous materials and substances as defined in the applicable state and federal environmental laws and regulations and to gather information regarding current and past environmental conditions at the Site.

LBA derived the data in this report primarily from visual inspections, examination of records in the public domain, interviews with individuals with information about the Site, and a limited number of subsurface explorations made on the dates indicated. The passage of time, manifestation of latent conditions or occurrence of future events may require further exploration at the Site, analysis of the data, and reevaluation of the findings, observations, and conclusions expressed in the report.

In preparing this report, LBA has relied upon and presumed accurate certain information (or the absence thereof) about the Site and adjacent properties provided by governmental officials and agencies, the Client, and others identified herein. Except as otherwise stated in the report, LBA has not attempted to verify the accuracy or completeness of any such information.

The data reported and the findings, observations, and conclusions expressed in the report are limited by the Scope of Services, including the extent of subsurface exploration and other tests. The Scope of Services was defined by the requests of the Client, the time and budgetary constraints imposed by the Client, and the availability of access to the Site.

Because of the limitations stated above, the findings, observations, and conclusions expressed by LBA in this report are not, and should not be considered, an opinion concerning the compliance of any past or present owner or operator of the site with any federal, state or local law or regulation. No warranty or guarantee, whether express or implied, is made with respect to the data reported or findings, observations, and conclusions expressed in this report. Further, such data, findings, observations, and conclusions are based solely upon site conditions in existence at the time of investigation.

This report has been prepared on behalf of and for the exclusive use of the Client, and is subject to and issued in connection with the Agreement and the provisions thereof.

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Table 1. Summary of Environmental Boring Data
Phase II Subsurface Corridor Investigation for Storm Sewer in Coney Island Area
Brooklyn, New York

| Boring No. | Sample ID | High PID (ppm) | Sample Interval (ftbgs) | Total VOCs (mg/kg) | Total SVOCs (mg/kg) | Metals Exceed (Yes/No) ¹ | Depth to Water (ftbgs) | Total Depth (ftbgs) | Other Comments |
|------------|-----------|----------------|-------------------------|--------------------|---------------------|-------------------------------------|------------------------|---------------------|--|
| SB01 | SB01 | <1 | 5.0 - 5.5 | ND | -- | No | 5.5 | 10 | |
| | | | 0.0 - 5.5 | -- | ND | | | | |
| SB02 | SB02 | <1 | 5.0 - 5.5 | ND | -- | No | 5.5 | 10 | |
| | | | 0.0 - 5.5 | -- | 0.08 | | | | |
| SB03 | SB03 | <1 | 5.0 - 5.5 | 0.0106 | -- | No | 5.5 | 10 | |
| | | | 0.0 - 5.5 | -- | 0.32 | | | | |
| SB04 | SB04 | <1 | 5.0 - 5.5 | ND | -- | No | 5.5 | 10 | |
| | | | 0.0 - 5.5 | -- | 0.024 | | | | |
| SB05 | SB05 | <1 | 5.5 - 6.0 | 0.0034 | -- | No | 6.0 | 10 | |
| | | | 0.0 - 6.0 | -- | 0.037 | | | | |
| SB06 | SB06 | <1 | 5.5 - 6.0 | 0.0854 | -- | Yes | 6.0 | 10 | |
| | | | 0.0 - 6.0 | -- | 25.59 | | | | |
| SB07 | SB07 | <1 | 5.0 - 5.5 | ND | -- | Yes | 5.5 | 10 | Groundwater sample SB07GW collected from SB07. |
| | | | 0.0 - 5.5 | -- | 4.82 | | | | |
| SB08 | SB08 | <1 | 5.0 - 5.5 | ND | -- | No | 5.5 | 10 | |
| | | | 0.0 - 5.5 | -- | 2.55 | | | | |
| SB09 | SB09 | <1 | 5.0 - 5.5 | ND | -- | No | 5.5 | 10 | |
| | | | 0.0 - 5.5 | -- | 4.41 | | | | |
| SB10 | SB10 | <1 | 5.0 - 5.5 | ND | -- | No | 5.5 | 10 | Groundwater sample SB10GW collected from SB10. |
| | | | 0.0 - 5.5 | -- | 0.20 | | | | |
| SB11 | SB11 | <1 | 5.5 - 6.0 | ND | -- | No | 6.0 | 10 | |
| | | | 0.0 - 6.0 | -- | ND | | | | |
| SB12 | SB12 | <1 | 5.5 - 6.0 | 0.0025 | -- | No | 6.0 | 10 | |
| | | | 0.0 - 6.0 | -- | 0.058 | | | | |
| SB13 | SB13 | <1 | 5.0 - 5.5 | ND | -- | No | 5.5 | 10 | Groundwater sample SB13GW collected from SB13. |
| | | | 0.0 - 5.5 | -- | 0.65 | | | | |
| SB14 | SB14 | <1 | 5.5 - 6.0 | ND | -- | No | 6.0 | 10 | |
| | | | 0.0 - 6.0 | -- | 0.40 | | | | |
| SB15 | SB15 | 63.5 | 5.0 - 5.5 | 0.0949 | -- | No | 5.5 | 10 | Groundwater sample SB15 collected from SB15. |
| | | | 0.0 - 5.5 | -- | 1.85 | | | | |

Notes:

1. Metal(s) exceeds Unrestricted Use (Track 1), Residential Use or Commercial Use (Track 2) SCOs.
 All soil samples were analyzed for Target Compound List (TCL) Volatile Organic Compounds, Semi-Volatile Organic Compounds (SVOCs) Pesticides, PCBs, Target Analyte List (TAL) Metals and Herbicides.
 All groundwater samples were analyzed for NYCDEP Limitations for Effluent to Sanitary or Combined Sewers
 N/A = Not applicable. PID was not used due to poor weather.
 ND = Not Detected
 NE = Not Encountered
 ftbgs = feet below ground surface

Table 1. Summary of Environmental Boring Data
Phase II Subsurface Corridor Investigation for Storm Sewer in Coney Island Area
Brooklyn, New York

| Boring No. | Sample ID | High PID (ppm) | Sample Interval | Total VOCs (mg/kg) | Total SVOCs | Metals Exceed | Depth to Water | Total Depth (ftbgs) | Other Comments |
|------------|-----------|----------------|-----------------|--------------------|-------------|---------------|----------------|---------------------|--|
| SB16 | SB16 | <1 | 5.5 - 6.0 | 0.0071 | - | Yes | 6.0 | 10 | |
| | | | 0.0 - 6.0 | - | 4.48 | | | | |
| SB17 | SB17 | <1 | 5.5 - 6.0 | ND | - | No | 6.0 | 10 | |
| | | | 0.0 - 6.0 | - | 1.69 | | | | |
| SB18 | SB18 | <1 | 5.5 - 6.0 | ND | - | No | 6.0 | 10 | |
| | | | 0.0 - 6.0 | - | 1.92 | | | | |
| SB19 | SB19 | <1 | 5.5 - 6.0 | 0.0049 | - | No | 6.0 | 10 | |
| | | | 0.0 - 6.0 | - | ND | | | | |
| SB20 | SB20 | <1 | 5.0 - 5.5 | ND | - | No | 5.5 | 10 | Groundwater samples SB20GW and DUP01GW collected from SB20. |
| | | | 0.0 - 5.5 | - | 0.27 | | | | |
| SB21 | SB21 | <1 | 5.5 - 6.0 | ND | - | Yes | 6.0 | 10 | |
| | | | 0.0 - 6.0 | - | 307.30 | | | | |
| SB22 | SB22 | 1379 | 5.0 - 5.5 | 134.96 | - | No | 5.5 | 10 | |
| | | | 0.0 - 5.5 | - | 1.75 | | | | |
| SB23 | SB23 | <1 | 5.0 - 5.5 | 0.028 | - | Yes | 5.5 | 10 | Sample DUP01 collected from SB23 |
| | | | 0.0 - 5.5 | - | 11.12 | | | | |
| SB24 | SB24 | <1 | 5.0 - 5.5 | ND | - | Yes | 5.5 | 10 | Sample DUP02 collected from SB24. Groundwater sample SB24GW collected from SB24. |
| | | | 0.0 - 5.5 | - | 17.90 | | | | |
| SB25 | SB25 | <1 | 5.0 - 5.5 | ND | - | No | 5.5 | 10 | |
| | | | 0.0 - 5.5 | - | 11.15 | | | | |
| SB26 | SB26 | <1 | 5.0 - 5.5 | 0.0078 | - | Yes | 5.5 | 10 | |
| | | | 0.0 - 5.5 | - | 24.15 | | | | |
| SB27 | SB27 | <1 | 5.0 - 5.5 | ND | - | Yes | 5.5 | 10 | |
| | | | 0.0 - 5.5 | - | 3.31 | | | | |
| SB28 | SB28 | <1 | 5.5 - 6.0 | ND | - | Yes | 6.0 | 10 | |
| | | | 0.0 - 6.0 | - | 2.15 | | | | |
| SB29 | SB29 | <1 | 5.0 - 5.5 | ND | - | Yes | 5.5 | 10 | |
| | | | 0.0 - 5.5 | - | 11.91 | | | | |
| SB30 | SB30 | <1 | 4.5 - 5.0 | ND | - | Yes | 5.0 | 10 | |
| | | | 0.0 - 5.0 | - | 4.13 | | | | |
| SB31 | SB31 | <1 | 5.0 - 5.5 | ND | - | No | 5.5 | 10 | |
| | | | 0.0 - 5.5 | - | ND | | | | |

Notes:

1. Metal(s) exceeds Unrestricted Use (Track 1), Residential Use or Commercial Use (Track 2) SCOs.

All soil samples were analyzed for Target Compound List (TCL) Volatile Organic Compounds, Semi-Volatile Organic Compounds (SVOCs) Pesticides, PCBs, Target Analyte List (TAL) Metals and Herbicides.

All groundwater samples were analyzed for NYCDEP Limitations for Effluent to Sanitary or Combined Sewers

N/A = Not applicable. PID was not used due to poor weather.

ND = Not Detected

NE = Not Encountered

ftbgs = feet below ground surface

Table 2. Summary of Target Compound List Volatile Organic Compounds Detected in Soil
Phase II Subsurface Corridor Investigation for Storm Sewer in Coney Island Area
Brooklyn, New York

| TCL VOC | Unrestricted Use (Track 1) Soil Cleanup Objectives (SCOs) | Commercial Use (Track 2) Soil Cleanup Objectives (SCOs) | Residential Use (Track 2) Soil Cleanup Objectives (SCOs) | Sample ID, Date Collected and Depth | | | | | | | | | | | | | | | | |
|--------------------|--|--|---|-------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | | | | SB17 | SB18 | SB19 | SB20 | SB21 | SB22 | SB23 | SB24 | SB25 | SB26 | SB27 | SB28 | SB29 | SB30 | SB31 | DUP01 | DUP02 |
| | | | | 9/23/2011 5.5' - 6.0' | 9/23/2011 5.5' - 6.0' | 9/23/2011 5.5' - 6.0' | 9/23/2011 5.0' - 5.5' | 9/23/2011 5.5' - 6.0' | 9/20/2011 5.0' - 5.5' | 9/22/2011 5.0' - 5.5' | 9/22/2011 5.0' - 5.5' | 9/20/2011 5.0' - 5.5' | 9/20/2011 5.0' - 5.5' | 9/23/2011 5.5' - 6.0' | 9/20/2011 5.0' - 5.5' | 9/20/2011 4.5' - 6.0' | 9/20/2011 5.0' - 5.5' | 9/20/2011 5.0' - 5.5' | 9/20/2011 5.0' - 5.5' | 9/22/2011 5.0' - 5.5' |
| 2-Butanone (MEK) | 0.12 | 500 | 100 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Acetone | 0.05 | 500 | 100 | ND | ND | ND | ND | ND | ND | 0.028 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Benzene | 0.06 | 44 | 2.0 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Dimethyl Disulfide | NS | NS | NS | ND | ND | 0.0049 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Hexane | NS | NS | NS | ND | ND | ND | ND | ND | 29 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Isobutylene | 1 | 390 | 30 | ND | ND | ND | ND | ND | 11 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Isopropylbenzene | NS | NS | NS | ND | ND | ND | ND | ND | 5.3 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| m&p-Xylenes | NS | NS | NS | ND | ND | ND | ND | ND | 21 | ND | ND | ND | 0.0018 | ND | ND | ND | ND | ND | ND | 0.0025 |
| Methylcyclohexane | NS | NS | NS | ND | ND | ND | ND | ND | 47 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene Chloride | 0.05 | 500 | 51 | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0046 | ND | ND | ND | ND | ND | ND | ND |
| o-Xylene | NS | NS | NS | ND | ND | ND | ND | ND | 0.33 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Toluene | 0.7 | 500 | 100 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Xylene (Total) | 0.26 | 500 | 100 | ND | ND | ND | ND | ND | 21.33 | ND | ND | ND | 0.0016 | ND | ND | ND | ND | ND | ND | 0.0025 |

Notes:
 All concentrations are reported in parts per million (ppm or mg/kg)
 ND = Compound not detected above method detection limit (see attached lab report for md/s)
 NS = No Standard
 SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations & NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006)
 BOLD = Concentration exceeds Residential Use (Track 2) Soil Cleanup Objectives
 Shading = Concentration exceeds Commercial Use (Track 1) Soil Cleanup Objectives
 Underline = Concentration exceeds Unrestricted Use (Track 1) Soil Cleanup Objectives

DDC Project Number: CONISPH01

Work Order Letter No. 7891-LBA-3-7386

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Table 3. Summary of Target Compound List Semi-Volatile Organic Compounds Detected in Soil
Phase II Subsurface Corridor Investigation for Storm Sewer in Coney Island Area
Brooklyn, New York

| TCL SVOC | Unrestricted Use (Track 1) Soil Cleanup Objectives (SCOs) | Commercial Use (Track 2) Soil Cleanup Objectives (SCOs) | Residential Use (Track 2) Soil Cleanup Objectives (SCOs) | Sample ID, Date Collected and Depth | | | | | | | | | | | | | | | | | | |
|----------------------------|--|--|---|-------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----|-------|
| | | | | SB01 | SB02 | SB03 | SB04 | SB05 | SB06 | SB07 | SB08 | SB09 | SB10 | SB11 | SB12 | SB13 | SB14 | SB15 | SB16 | | | |
| | | | | 9/19/2011 0 - 5.5' | 9/19/2011 0 - 5.5' | 9/19/2011 0 - 5.5' | 9/19/2011 0 - 5.5' | 9/19/2011 0 - 5.5' | 9/19/2011 0 - 5.0' | 9/22/2011 0 - 5.5' | 9/20/2011 0 - 5.5' | 9/19/2011 0 - 5.5' | 9/23/2011 0 - 5.5' | 9/20/2011 0 - 5.5' | 9/23/2011 0 - 5.0' | 9/23/2011 0 - 5.5' | 9/23/2011 0 - 5.0' | 9/23/2011 0 - 5.5' | 9/23/2011 0 - 5.5' | 9/23/2011 0 - 5.0' | | |
| 1,1-Biphenyl | NS | NS | NS | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Methylnaphthalene | NS | NS | NS | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Acenaphthene | 20 | 500 | 100 | ND | ND | ND | ND | ND | 0.23 | 0.079 | ND | 0.11 | ND | ND | ND | ND | ND | ND | 1.3 | 0.04 | ND | ND |
| Acenaphthylene | 100 | 500 | 100 | ND | ND | ND | ND | ND | 0.068 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Anthracene | 100 | 500 | 100 | ND | ND | ND | ND | ND | 0.57 | 0.25 | ND | 0.17 | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.078 |
| Benzo(a)anthracene | 1 | 5.5 | 1 | ND | ND | 0.045 | ND | ND | <u>2.2</u> | <u>1.2</u> | 0.24 | 0.31 | ND | ND | ND | 0.054 | 0.044 | ND | 0.42 | ND | ND | 0.42 |
| Benzo(a)pyrene | 1 | 1 | 1 | ND | ND | 0.04 | ND | ND | <u>2.1</u> | <u>1.2</u> | 0.27 | 0.23 | 0.04 | ND | ND | 0.056 | 0.046 | 0.097 | 0.46 | ND | ND | 0.46 |
| Benzo(b)fluoranthene | 1 | 5.5 | 1 | ND | 0.041 | 0.051 | ND | ND | <u>2.7</u> | <u>1.8</u> | 0.32 | 0.31 | 0.05 | ND | ND | 0.07 | 0.086 | 0.086 | 0.57 | ND | ND | 0.57 |
| Benzo(g,h,i)perylene | 100 | 500 | 100 | ND | ND | ND | ND | ND | 1.5 | 0.85 | 0.23 | 0.16 | ND | ND | ND | 0.043 | 0.041 | 0.076 | 0.37 | ND | ND | 0.37 |
| Benzo(k)fluoranthene | 0.8 | 59 | 1 | ND | ND | ND | ND | ND | 0.83 | 0.43 | 0.12 | 0.084 | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.16 |
| Benzybutylphthalate | NS | NS | NS | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| bis(2-Ethylhexyl)Phthalate | NS | NS | NS | ND | ND | ND | ND | ND | ND | 0.11 | ND | 0.13 | ND | ND | 0.058 | ND | 0.064 | ND | ND | ND | ND | ND |
| Carbazole | NS | NS | NS | ND | ND | ND | ND | ND | 0.15 | 0.11 | ND | 0.062 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chrysene | 1 | 56 | 1 | ND | ND | 0.042 | ND | ND | <u>2</u> | <u>1</u> | 0.23 | 0.26 | ND | ND | ND | 0.063 | ND | ND | ND | ND | ND | 0.39 |
| Dibenz(a,h)anthracene | 0.33 | 0.56 | 0.33 | ND | ND | ND | ND | ND | <u>0.96</u> | 0.27 | 0.054 | 0.045 | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.11 |
| Dibenzofuran | 7 | 350 | 14 | ND | ND | ND | ND | ND | 0.082 | 0.033 | ND | 0.039 | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.15 |
| Di-n-butylphthalate | NS | NS | NS | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Di-n-octylphthalate | NS | NS | NS | ND | ND | ND | ND | ND | 0.21 | ND | ND | 0.04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Fluoranthene | 100 | 500 | 100 | ND | ND | 0.073 | ND | ND | 4.1 | 2.1 | 0.36 | 0.7 | 0.054 | ND | ND | 0.13 | 0.065 | ND | 0.52 | ND | ND | 0.52 |
| Fluorene | 30 | 500 | 100 | ND | ND | ND | ND | ND | 0.16 | 0.072 | ND | 0.056 | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.14 |
| Indeno(1,2,3-cd)Pyrene | 0.5 | 5.5 | 0.5 | ND | ND | ND | ND | ND | <u>1.4</u> | <u>0.82</u> | 0.2 | 0.15 | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.32 |
| Naphthalene | 12 | 500 | 100 | ND | ND | ND | 0.024 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Phenanthrene | 100 | 500 | 100 | ND | ND | ND | ND | ND | 2.5 | 1.2 | 0.14 | 0.78 | ND | ND | ND | 0.097 | ND | ND | ND | ND | ND | 0.32 |
| Pyrene | 100 | 500 | 100 | ND | 0.043 | 0.068 | ND | 0.037 | 4.4 | 2.2 | 0.4 | 0.77 | 0.054 | ND | ND | 0.13 | 0.073 | ND | ND | ND | ND | 0.72 |

Notes:
 All concentrations are reported in parts per million (ppm or mg/kg)
 ND = Compound not detected above method detection limit (see attached lab report for mdr's)
 NS = No Standard
 SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006)
BOLD = Concentration exceeds Residential Use (Track 2) Soil Cleanup Objectives
Shading = Concentration exceeds Commercial Use (Track 1) Soil Cleanup Objectives
Underline = Concentration exceeds Unrestricted Use (Track 1) Soil Cleanup Objectives

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Table 3. Summary of Target Compound List Semi-Volatile Organic Compounds Detected in Soil
Phase II Subsurface Corridor Investigation for Storm Sewer in Coney Island Area
Brooklyn, New York

| TCL SVOC | Unrestricted Use (Track 1) Soil Cleanup Objectives (SCOs) | Commercial Use (Track 2) Soil Cleanup Objectives (SCOs) | Residential Use (Track 2) Soil Cleanup Objectives (SCOs) | Sample ID, Date Collected and Depth | | | | | | | | | | | | | | | | |
|-------------------------|---|---|--|-------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | | | | SB17 | SB18 | SB19 | SB20 | SB21 | SB22 | SB23 | SB24 | SB25 | SB26 | SB27 | SB28 | SB29 | SB30 | SB31 | DUP01 | DUP02 |
| | | | | 9/23/2011 0 - 6.0' | 9/23/2011 0 - 6.0' | 9/23/2011 0 - 6.0' | 9/22/2011 0 - 6.5' | 9/23/2011 0 - 6.0' | 9/20/2011 0 - 6.5' | 9/20/2011 0 - 6.5' | 9/22/2011 0 - 6.5' | 9/20/2011 0 - 6.5' | 9/20/2011 0 - 6.5' | 9/20/2011 0 - 6.5' | 9/23/2011 0 - 6.0' | 9/20/2011 0 - 6.5' | 9/20/2011 0 - 6.5' | 9/20/2011 0 - 6.5' | 9/20/2011 0 - 6.5' | 9/20/2011 0 - 6.5' |
| 1,1-Biphenyl | NS | NS | NS | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Methylnaphthalene | NS | NS | NS | ND | ND | ND | ND | 3.5 | 0.68 | ND | ND | 0.046 | ND | ND | ND | ND | 0.051 | ND | ND | ND |
| Acenaphthene | 20 | 500 | 100 | ND | ND | ND | ND | 9.8 | ND | 0.13 | 0.085 | 0.28 | 0.25 | ND | ND | 0.15 | ND | ND | 0.055 | 0.14 |
| Acenaphthylene | 100 | 500 | 100 | ND | ND | ND | ND | ND | ND | ND | 0.16 | ND | 0.28 | ND | ND | 0.074 | 0.053 | ND | 0.055 | 0.52 |
| Anthracene | 100 | 500 | 100 | ND | ND | ND | ND | 16 | ND | 0.2 | 0.38 | 0.27 | 0.52 | 0.063 | 0.037 | 0.15 | 0.1 | ND | 0.14 | 0.94 |
| Benzo(a)anthracene | 1 | 5.6 | 1 | 0.14 | 0.16 | ND | 0.039 | 20 | 0.039 | 0.93 | 1.7 | 0.79 | 1.9 | 0.3 | 0.17 | 1 | 0.3 | ND | 0.83 | 5.1 |
| Benzo(e)pyrene | 1 | 1 | 1 | 0.13 | 0.22 | ND | 0.044 | 19 | 0.04 | 0.89 | 1.5 | 0.74 | 1.9 | 0.3 | 0.17 | 1 | 0.29 | ND | 0.87 | 1.6 |
| Benzo(b)fluoranthene | 1 | 5.6 | 1 | 0.19 | 0.28 | ND | 0.054 | 22 | 0.055 | 1.2 | 2.1 | 0.92 | 2.4 | 0.41 | 0.23 | 1.4 | 0.42 | ND | 0.89 | 1.1 |
| Benzo(g,h,i)perylene | 100 | 500 | 100 | 0.1 | 0.22 | ND | ND | 12 | 0.051 | 0.88 | 1.2 | 0.49 | 1.5 | 0.22 | 0.15 | 0.65 | 0.28 | ND | 0.55 | 3.2 |
| Benzo(k)fluoranthene | 0.8 | 56 | 1 | 0.054 | 0.082 | ND | ND | 7.6 | ND | 0.39 | 0.48 | 0.3 | 0.74 | 0.1 | 0.064 | 0.37 | 0.097 | ND | 0.28 | 1.8 |
| Isobutylphthalate | NS | NS | NS | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.049 | 0.22 | ND | ND | ND |
| (2-Ethylhexyl)Phthalate | NS | NS | NS | 0.37 | 0.04 | ND | ND | ND | ND | ND | 0.15 | 0.049 | ND | ND | 0.18 | 0.17 | 0.25 | ND | 0.15 | 0.23 |
| Carbazole | NS | NS | NS | ND | ND | ND | ND | 4.4 | ND | ND | 0.1 | 0.14 | 0.18 | ND | ND | 0.07 | ND | ND | 0.08 | 0.17 |
| Chrysene | 1 | 56 | 1 | 0.13 | 0.14 | ND | 0.038 | 18 | 0.04 | 0.84 | 1.4 | 0.69 | 1.8 | 0.27 | 0.15 | 0.88 | 0.27 | ND | 0.63 | 4.1 |
| Dibenz(a,h)anthracene | 0.33 | 0.56 | 0.33 | ND | 0.06 | ND | ND | 3.8 | ND | 0.25 | 0.38 | 0.15 | 0.53 | 0.059 | 0.037 | 0.18 | 0.059 | ND | 0.15 | 0.22 |
| Dibenzofuran | 7 | 350 | 14 | ND | ND | ND | ND | 6.5 | ND | 0.069 | ND | 0.24 | 0.16 | ND | ND | 0.072 | 0.026 | ND | 0.031 | 0.085 |
| Di-n-butylphthalate | NS | NS | NS | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.038 | ND | ND | ND |
| Di-n-octylphthalate | NS | NS | NS | 0.051 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.18 | ND | ND | ND | ND |
| Fluoranthene | 100 | 500 | 100 | 0.17 | 0.22 | ND | 0.047 | 50 | 0.054 | 1.7 | 2.7 | 1.4 | 3.2 | 0.53 | 0.24 | 2.1 | 0.53 | ND | 1.2 | 10 |
| Fluorene | 30 | 500 | 100 | ND | ND | ND | ND | 8.2 | ND | ND | 0.081 | 0.19 | 0.16 | ND | ND | 0.075 | ND | ND | 0.043 | 0.19 |
| Indeno(1,2,3-cd)Pyrene | 0.5 | 5.6 | 0.5 | 0.092 | 0.19 | ND | ND | 11 | 0.044 | 0.84 | 1.1 | 0.47 | 1.3 | 0.2 | 0.13 | 0.63 | 0.23 | ND | 0.51 | 3 |
| Naphthalene | 12 | 500 | 100 | ND | ND | ND | ND | 6 | 0.59 | ND | ND | 1 | 0.21 | ND | ND | 0.091 | 0.025 | ND | ND | 0.059 |
| Phenanthrene | 100 | 500 | 100 | 0.065 | 0.071 | ND | ND | 43 | 0.052 | 1.3 | 1.4 | 1.3 | 2.4 | 0.27 | 0.15 | 0.87 | 0.4 | ND | 0.74 | 4 |
| Pyrene | 100 | 500 | 100 | 0.2 | 0.27 | ND | 0.044 | 49 | 0.052 | 1.9 | 3 | 1.5 | 4.7 | 0.6 | 0.28 | 1.0 | 0.55 | ND | 1.2 | 10 |

Notes:
 All concentrations are reported in parts per million (ppm or mg/kg)
 ND = Compound not detected above method detection limit (see attached lab report for mdl's)
 NS = No Standard
 SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006)
BOLD = Concentration exceeds Residential Use (Track 2) Soil Cleanup Objectives
 Shading = Concentration exceeds Commercial Use (Track 1) Soil Cleanup Objectives
 Underline = Concentration exceeds Unrestricted Use (Track 1) Soil Cleanup Objectives

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Table 4. Summary of Target Analyte List Metals Detected in Soil
Phase II Subsurface Corridor Investigation for Storm Sewer in Coney Island Area
Brooklyn, New York

| Target Analyte List Metal | Unrestricted Use (Track 1) Soil Cleanup Objectives (SCOs) | Commercial Use (Track 2) Soil Cleanup Objectives (SCOs) | Residential Use (Track 2) Soil Cleanup Objectives (SCOs) | Sample ID, Date Collected and Depth | | | | | | | | | | | | | | | |
|---------------------------|---|---|--|-------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | | | | SB01 | SB02 | SB03 | SB04 | SB05 | SB06 | SB07 | SB08 | SB09 | SB10 | SB11 | SB12 | SB13 | SB14 | SB15 | SB16 |
| | | | | 9/19/2011 0 - 5.5' | 9/19/2011 0 - 5.5' | 9/19/2011 0 - 5.5' | 9/19/2011 0 - 5.5' | 9/19/2011 0 - 6.0' | 9/19/2011 0 - 6.0' | 9/22/2011 0 - 5.5' | 9/20/2011 0 - 5.5' | 9/19/2011 0 - 5.5' | 9/22/2011 0 - 5.5' | 9/20/2011 0 - 6.0' | 9/23/2011 0 - 6.0' | 9/22/2011 0 - 5.5' | 9/23/2011 0 - 6.0' | 9/22/2011 0 - 5.5' | 9/23/2011 0 - 6.0' |
| Aluminum | NS | NS | NS | 570 | 1300 | 500 | 550 | 510 | 3300 | 3100 | 1400 | 750 | 1400 | 550 | 1700 | 13000 | 440 | 1100 | 2300 |
| Arsenic | 13 | 16 | 16 | ND | ND | ND | ND | ND | 15 | 2.7 | ND | ND | ND | ND | 5.5 | ND | ND | ND | 4.4 |
| Barium | 350 | 400 | 350 | ND | ND | ND | ND | ND | 100 | 69 | ND | 12 | 12 | ND | 14 | 27 | ND | ND | 72 |
| Cadmium | 2.5 | 9.3 | 2.5 | ND | ND | ND | ND | ND | 1.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Calcium Metal | NS | NS | NS | ND | 1500 | ND | ND | ND | 84000 | 6400 | ND | ND | 1500 | ND | 13000 | 1400 | ND | ND | 2100 |
| Chromium | NS | NS | NS | ND | 5.8 | ND | ND | ND | 9.8 | 7.5 | ND | ND | ND | ND | 15 | ND | ND | ND | ND |
| Cobalt | NS | NS | NS | ND | ND | ND | ND | ND | 4.1 | 3.6 | ND | ND | ND | ND | 3.1 | ND | ND | ND | ND |
| Copper | 50 | 270 | 270 | ND | 6.8 | ND | ND | ND | 49 | 25 | 7 | 9.9 | ND | ND | 7.9 | ND | ND | 6.7 | 34 |
| Iron | NS | NS | NS | 1200 | 2700 | 1100 | 1200 | 1100 | 11000 | 8500 | 2400 | 2000 | 3300 | 1400 | 3000 | 14000 | 1300 | 2200 | 7300 |
| Lead | 63 | 1000 | 400 | ND | 26 | ND | ND | ND | 320 | 100 | 34 | 12 | 35 | ND | ND | 21 | ND | 14 | 120 |
| Magnesium | NS | NS | NS | ND | 910 | ND | ND | ND | 35000 | 1800 | 620 | ND | 920 | ND | 2100 | 1300 | ND | ND | 980 |
| Manganese | 1600 | 10000 | 2000 | 18 | 39 | 18 | 20 | 18 | 210 | 100 | 27 | 33 | 48 | 23 | 40 | 57 | 28 | 16 | 180 |
| Mercury | 0.18 | 2.8 | 0.81 | ND | ND | ND | ND | ND | 1.6 | 0.49 | ND | ND | ND | ND | ND | ND | ND | ND | 0.12 |
| Nickel | 30 | 310 | 140 | ND | ND | ND | ND | ND | 17 | 14 | 5.5 | ND | ND | ND | ND | 6.8 | ND | ND | 8.3 |
| Potassium | NS | NS | NS | ND | ND | ND | ND | ND | 570 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Selenium | 3.9 | 1500 | 36 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Sodium | NS | NS | NS | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 420 | 800 | ND | 410 | 1300 |
| Vanadium | NS | NS | NS | ND | ND | ND | ND | ND | 16 | 28 | ND | ND | ND | ND | 24 | ND | ND | ND | ND |
| Zinc | 109 | 10000 | 2200 | ND | 29 | ND | ND | ND | 140 | 66 | 35 | 21 | 38 | ND | 27 | 11 | 41 | 41 | 180 |

Notes:
 All concentrations are in parts per million (ppm or mg/kg)
 ND = Compound not detected above method detection limit (see attached lab report for md's)
 NS = No Standard
 SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006)
BOLD = Concentration exceeds Residential Use (Track 2) Soil Cleanup Objectives
Shading = Concentration exceeds Commercial Use (Track 1) Soil Cleanup Objectives
Underline = Concentration exceeds Unrestricted Use (Track 1) Soil Cleanup Objectives

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Table 4. Summary of Target Analyte List Metals Detected in Soil
Phase II Subsurface Corridor Investigation for Storm Sewer in Coney Island Area
Brooklyn, New York

| Target Analyte List Metal | Unrestricted Use (Track 1) Soil Cleanup Objectives (SCOs) | Commercial Use (Track 2) Soil Cleanup Objectives (SCOs) | Residential Use (Track 2) Soil Cleanup Objectives (SCOs) | Sample ID, Date Collected and Depth | | | | | | | | | | | | | | | | |
|---------------------------|---|---|--|-------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | | | | SB17 | SB18 | SB19 | SB20 | SB21 | SB22 | SB23 | SB24 | SB25 | SB26 | SB27 | SB28 | SB29 | SB30 | SB31 | DUP01 | DUP02 |
| | | | | 9/23/2011 0 - 6.0' | 9/23/2011 0 - 6.0' | 9/23/2011 0 - 6.0' | 9/22/2011 0 - 5.5' | 9/23/2011 0 - 6.0' | 9/20/2011 0 - 5.5' | 9/20/2011 0 - 5.5' | 9/22/2011 0 - 5.5' | 9/20/2011 0 - 5.5' | 9/22/2011 0 - 5.5' | 9/20/2011 0 - 5.5' | 9/20/2011 0 - 5.5' | 9/23/2011 0 - 6.0' | 9/20/2011 0 - 5.5' | 9/20/2011 0 - 5.0' | 9/20/2011 0 - 5.5' | 9/20/2011 0 - 5.5' |
| Aluminum | NS | NS | NS | 4600 | 1900 | 990 | 310 | 5000 | 3900 | 3800 | 3600 | 11000 | 2600 | 1400 | 2400 | 5400 | 5400 | 1100 | 1600 | 3700 |
| Arsenic | 13 | 16 | 16 | 5.4 | ND | ND | ND | 48 | ND | 4.4 | 9.9 | 4.9 | 5.9 | 7.3 | 5.4 | 10 | 4.5 | ND | ND | 7.9 |
| Barium | 350 | 400 | 350 | 24 | 17 | ND | ND | 69 | 27 | 67 | 67 | 37 | 130 | 41 | 110 | 55 | 66 | ND | 24 | 92 |
| Cadmium | 2.5 | 9.3 | 2.5 | ND | ND | ND | ND | 2.1 | ND | ND | 1.1 | ND | ND | ND | 0.67 | 0.81 | ND | ND | ND | 1.3 |
| Calcium Metal | NS | NS | NS | 2400 | 9400 | ND | ND | 4100 | 2800 | 37000 | 40000 | ND | 3000 | ND | 6100 | 1900 | 3000 | ND | 8000 | 7600 |
| Chromium | NS | NS | NS | 12 | 7.3 | ND | ND | 12 | 15 | 11 | 16 | 16 | 9.8 | 6.4 | 13 | 14 | 21 | ND | 6.3 | 13 |
| Cobalt | NS | NS | NS | ND | ND | ND | ND | 6.8 | 4.3 | 3.8 | 4.1 | 7.1 | 3.8 | ND | 3.5 | 3.3 | 5.8 | ND | ND | 3.8 |
| Copper | 50 | 270 | 270 | 24 | 19 | ND | ND | 42 | 18 | 33 | 52 | 11 | 49 | 20 | 37 | 79 | 44 | ND | 15 | 76 |
| Iron | NS | NS | NS | 6800 | 4500 | 1900 | 680 | 16000 | 9500 | 12000 | 15000 | 20000 | 8700 | 3200 | 9300 | 13000 | 13000 | 2100 | 3700 | 18000 |
| Lead | 63 | 1000 | 400 | 33 | 53 | ND | 5.8 | 120 | 47 | 310 | 200 | 17 | 410 | 150 | 360 | 150 | 100 | ND | 77 | 420 |
| Magnesium | NS | NS | NS | 1400 | 4400 | 600 | ND | 1200 | 1900 | 2200 | 22000 | 2300 | 1000 | ND | 1700 | 1300 | 2900 | ND | 890 | 2700 |
| Manganese | 1600 | 10000 | 2000 | 79 | 78 | 20 | ND | 67 | 92 | 150 | 220 | 130 | 110 | 48 | 130 | 120 | 210 | 18 | 49 | 190 |
| Mercury | 0.18 | 2.8 | 0.81 | ND | 0.1 | ND | ND | 0.71 | 0.099 | 18 | 1 | ND | 0.46 | 0.24 | ND | 9.4 | ND | ND | 28 | 9.58 |
| Nickel | 30 | 310 | 140 | 6.2 | ND | ND | ND | 16 | 24 | 13 | 13 | 13 | 16 | ND | 14 | 11 | 26 | ND | 8.3 | 13 |
| Potassium | NS | NS | NS | ND | ND | ND | ND | 720 | 610 | ND | ND | 620 | ND | ND | ND | ND | 980 | ND | ND | 580 |
| Selenium | 3.9 | 1500 | 36 | ND | ND | ND | ND | 2.3 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Sodium | NS | NS | NS | ND | ND | 510 | ND | 650 | ND | 350 | 340 | ND | ND | ND | ND | 380 | ND | ND | ND | 320 |
| Vanadium | NS | NS | NS | 12 | ND | ND | ND | 18 | 15 | 15 | 23 | 25 | 14 | ND | ND | 16 | 20 | ND | ND | 18 |
| Zinc | 109 | 10000 | 2200 | 92 | 38 | 19 | ND | 100 | 38 | 170 | 190 | 47 | 220 | 97 | 220 | 230 | 110 | 16 | 71 | 250 |

Notes:
All concentrations are in parts per million (ppm or mg/kg)
ND = Compound not detected above method detection limit (see attached lab report for md's)
NS = No Standard
SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006)
BOLD = Concentration exceeds Residential Use (Track 2) Soil Cleanup Objectives
Shading = Concentration exceeds Commercial Use (Track 1) Soil Cleanup Objectives
Underline = Concentration exceeds Unrestricted Use (Track 1) Soil Cleanup Objectives

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Table 5. Summary of Target Analyte List Pesticides Detected in Soil
Phase II Subsurface Corridor Investigation for Storm Sewer in Coney Island Area
Brooklyn, New York

| Pesticide | Unrestricted Use (Track 1) Soil Cleanup Objectives (SCOs) | Commercial Use (Track 2) Soil Cleanup Objectives (SCOs) | Residential Use (Track 2) Soil Cleanup Objectives (SCOs) | Sample ID, Date Collected and Depth | | | | | | | | | | | | | | | |
|-----------|--|--|---|-------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | | | | SB01 | SB02 | SB03 | SB04 | SB05 | SB06 | SB07 | SB08 | SB09 | SB10 | SB11 | SB12 | SB13 | SB14 | SB15 | SB16 |
| | | | | 9/19/2011 0 - 5.5' | 9/19/2011 0 - 5.5' | 9/19/2011 0 - 5.5' | 9/19/2011 0 - 5.5' | 9/19/2011 0 - 6.0' | 9/19/2011 0 - 6.0' | 9/22/2011 0 - 5.5' | 9/22/2011 0 - 5.5' | 9/19/2011 0 - 5.5' | 9/22/2011 0 - 5.5' | 9/28/2011 0 - 6.0' | 9/23/2011 0 - 6.0' | 9/22/2011 0 - 5.5' | 9/23/2011 0 - 6.0' | 9/22/2011 0 - 5.5' | 9/23/2011 0 - 6.0' |
| 4,4-DDD | 0.0033 | 92 | 2.6 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.01 | ND | ND | ND | |
| 4,4-DDE | 0.0033 | 62 | 1.8 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.016 | 0.0038 | ND | ND | |
| 4,4-DDT | 0.0033 | 47 | 1.7 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.022 | 0.041 | ND | ND | |
| Chlordane | NS | NS | NS | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.048 | ND | ND | ND | |
| Dieldrin | 0.005 | 1.4 | 0.039 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.013 | 0.0023 | ND | ND | |

Notes:
 All concentrations are reported in parts per million (ppm) or mg/kg
 ND = Compound not detected above method detection limit (see attached lab report for mdl's)
 NS = No Standard
 SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations & NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2008)
 BOLD = Concentration exceeds Residential Use (Track 2) Soil Cleanup Objectives
 Shading = Concentration exceeds Commercial Use (Track 2) Soil Cleanup Objectives
 Underline = Concentration exceeds Unrestricted Use (Track 1) Soil Cleanup Objectives

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Table 5. Summary of Target Analyte List Pesticides Detected in Soil
Phase II Subsurface Corridor Investigation for Storm Sewer in Coney Island Area
Brooklyn, New York

| Pesticide | Unrestricted Use (Track 1) Soil Cleanup Objectives (SCOs) | Commercial Use (Track 2) Soil Cleanup Objectives (SCOs) | Residential Use (Track 2) Soil Cleanup Objectives (SCOs) | Sample ID, Date Collected and Depth | | | | | | | | | | | | | | | | |
|-----------|---|---|--|-------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | | | | SB17 | SB18 | SB19 | SB20 | SB21 | SB22 | SB23 | SB24 | SB25 | SB26 | SB27 | SB28 | SB29 | SB30 | SB31 | DUP01 | DUP02 |
| | | | | 9/23/2011 0 - 6.0' | 9/23/2011 0 - 6.0' | 9/23/2011 0 - 6.0' | 9/22/2011 0 - 5.5' | 9/23/2011 0 - 6.0' | 9/20/2011 0 - 5.5' | 9/20/2011 0 - 5.5' | 9/22/2011 0 - 5.5' | 9/20/2011 0 - 5.5' | 9/20/2011 0 - 5.5' | 9/20/2011 0 - 5.5' | 9/20/2011 0 - 5.5' | 9/23/2011 0 - 6.0' | 9/20/2011 0 - 5.5' | 9/20/2011 0 - 5.5' | 9/20/2011 0 - 5.5' | 9/20/2011 0 - 5.5' |
| DDD | 0.0033 | 92 | 2.6 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| DE | 0.0033 | 62 | 1.8 | 0.013 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| DT | 0.0033 | 47 | 1.7 | 0.028 | ND | ND | ND | ND | 0.012 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chlordane | NS | NS | NS | 0.04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Dieldrin | 0.005 | 1.4 | 0.036 | 0.0045 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

Notes:
 All concentrations are reported in parts per million (ppm or mg/kg)
 ND = Compound not detected above method detection limit (see attached lab report for mdl's)
 NS = No Standard
 SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006)
BOLD = Concentration exceeds Residential Use (Track 2) Soil Cleanup Objectives
Shading = Concentration exceeds Commercial Use (Track 1) Soil Cleanup Objectives
Underline = Concentration exceeds Unrestricted Use (Track 1) Soil Cleanup Objectives

DDC Project Number: CONISPH01

Work Order Letter No. 7691-LBA-3-7365

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Table 6. Summary of Herbicides Detected in Soil
 Phase II Subsurface Corridor Investigation for Storm Sewer in Coney Island Area
 Brooklyn, New York

| Herbicide | Unrestricted Use (Track 1) Soil Cleanup Objectives (SCOs) | Commercial Use (Track 2) Soil Cleanup Objectives (SCOs) | Residential Use (Track 2) Soil Cleanup Objectives (SCOs) | Sample ID, Date Collected and Depth | | | | | | | | | | | | | | | |
|-----------------------------|--|--|--|-------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | | | | SB01 | SB02 | SB03 | SB04 | SB05 | SB06 | SB07 | SB08 | SB09 | SB10 | SB11 | SB12 | SB13 | SB14 | SB15 | SB16 |
| | | | | 9/19/2011 | 9/19/2011 | 9/19/2011 | 9/19/2011 | 9/19/2011 | 9/19/2011 | 9/22/2011 | 9/20/2011 | 9/19/2011 | 9/22/2011 | 9/20/2011 | 9/23/2011 | 9/23/2011 | 9/23/2011 | 9/23/2011 | 9/23/2011 |
| No Herbicides were detected | NS | NS | NS | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | |

Notes:
 All concentrations are reported in parts per million (ppm or mg/kg)
 ND = Compound not detected above method detection limit (see attached lab report for mdl's)
 NS = No Standard
 SCOs = Soil Cleanup Objectives as per the NYSDC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006)
BOLD = Concentration exceeds Residential Use (Track 2) Soil Cleanup Objectives
Shading = Concentration exceeds Commercial Use (Track 2) Soil Cleanup Objectives
Underline = Concentration exceeds Unrestricted Use (Track 1) Soil Cleanup Objectives

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Table 6. Summary of Herbicides Detected in Soil
 Phase II Subsurface Corridor Investigation for Storm Sewer in Coney Island Area
 Brooklyn, New York

| Herbicide | Unrestricted Use (Track 1) Soil Cleanup Objectives (SCOs) | Commercial Use (Track 2) Soil Cleanup Objectives (SCOs) | Residential Use (Track 2) Soil Cleanup Objectives (SCOs) | Sample ID, Date Collected and Depth | | | | | | | | | | | | | | | | |
|--------------------------|--|--|--|-------------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|--------------------------------|--------------------------------|
| | | | | SB17 9/23/2011 0 - 6.0' | SB18 9/23/2011 0 - 6.0' | SB19 9/23/2011 0 - 6.0' | SB20 9/22/2011 0 - 6.5' | SB21 9/23/2011 0 - 6.0' | SB22 9/20/2011 0 - 6.5' | SB23 9/20/2011 0 - 6.5' | SB24 9/22/2011 0 - 6.5' | SB25 9/20/2011 0 - 6.5' | SB26 9/20/2011 0 - 6.5' | SB27 9/20/2011 0 - 6.0' | SB28 9/23/2011 0 - 6.5' | SB29 9/20/2011 0 - 6.5' | SB30 9/20/2011 0 - 6.0' | SB31 9/20/2011 0 - 5.5' | DUP01 9/20/2011 0 - 5.5' | DUP02 9/22/2011 0 - 5.5' |
| Herbicides were detected | NS | NS | NS | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

Notes:
 All concentrations are reported in parts per million (ppm or mg/kg)
 ND = Compound not detected above method detection limit (see attached lab report for mdf's)
 NS = No Standard
 SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006)
BOLD = Concentration exceeds Residential Use (Track 2) Soil Cleanup Objectives
 Shading = Concentration exceeds Commercial Use (Track 1) Soil Cleanup Objectives
 Underline = Concentration exceeds Unrestricted Use (Track 1) Soil Cleanup Objectives

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Table 7. Summary of Polychlorinated Biphenyls Detected in Soil
Phase II Subsurface Corridor Investigation for Storm Sewer in Coney Island Area
Brooklyn, New York

| PCB | Unrestricted Use (Track 1) Soil Cleanup Objectives (SCOs) | Commercial Use (Track 2) Soil Cleanup Objectives (SCOs) | Residential Use (Track 2) Soil Cleanup Objectives (SCOs) | Sample ID, Date Collected and Depth | | | | | | | | | | | | | | | |
|--------------|--|--|---|-------------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| | | | | SB01 9/19/2011 0 - 5.5' | SB02 9/19/2011 0 - 5.5' | SB03 9/19/2011 0 - 5.5' | SB04 9/19/2011 0 - 5.5' | SB05 9/19/2011 0 - 6.0' | SB06 9/19/2011 0 - 6.0' | SB07 9/23/2011 0 - 5.5' | SB08 9/20/2011 0 - 5.5' | SB09 9/19/2011 0 - 5.5' | SB10 9/22/2011 0 - 5.5' | SB11 9/20/2011 0 - 6.0' | SB12 9/23/2011 0 - 6.0' | SB13 9/22/2011 0 - 5.5' | SB14 9/23/2011 0 - 6.0' | SB15 9/22/2011 0 - 5.5' | SB16 9/23/2011 0 - 6.0' |
| Aroclor 1242 | NS | NS | NS | ND | 0.13 | ND | ND | 0.047 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| PCBs* | 0.1 | 1 | 1 | ND | 0.13 | ND | ND | 0.047 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

Notes:
 All concentrations are reported in parts per million (ppm or mg/kg)
 ND = Compound not detected above method detection limit (see attached lab report for md'l's)
 NS = No Standard
 * Refers to the total concentration of PCBs in the sample
 SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006)
BOLD = Concentration exceeds Residential Use (Track 2) Soil Cleanup Objectives
Shading = Concentration exceeds Commercial Use (Track 1) Soil Cleanup Objectives
Underline = Concentration exceeds Unrestricted Use (Track 1) Soil Cleanup Objectives

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Table 7. Summary of Polychlorinated Biphenyls Detected in Soil
Phase II Subsurface Corridor Investigation for Storm Sewer in Coney Island Area
Brooklyn, New York

| PCB | Unrestricted Use (Track 1) Soil Cleanup Objectives (SCOs) | Commercial Use (Track 2) Soil Cleanup Objectives (SCOs) | Residential Use (Track 2) Soil Cleanup Objectives (SCOs) | Sample ID, Date Collected and Depth | | | | | | | | | | | | | | | | |
|------|--|--|---|-------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | | | | SB17 | SB18 | SB19 | SB20 | SB21 | SB22 | SB23 | SB24 | SB25 | SB26 | SB27 | SB28 | SB29 | SB30 | SB31 | DUP01 | DUP02 |
| | | | | 9/23/2011 0 - 6.0' | 9/23/2011 0 - 6.0' | 9/23/2011 0 - 6.0' | 9/22/2011 0 - 5.5' | 9/23/2011 0 - 6.0' | 9/20/2011 0 - 5.5' | 9/20/2011 0 - 5.5' | 9/22/2011 0 - 6.5' | 9/20/2011 0 - 5.5' | 9/20/2011 0 - 5.5' | 9/20/2011 0 - 5.5' | 9/23/2011 0 - 6.0' | 9/20/2011 0 - 5.5' | 9/20/2011 0 - 5.0' | 9/20/2011 0 - 5.5' | 9/20/2011 0 - 5.5' | 9/20/2011 0 - 5.5' |
| 1242 | NS | NS | NS | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 3* | 0.1 | 1 | 1 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

Notes:
 All concentrations are reported in parts per million (ppm or mg/kg)
 ND = Compound not detected above method detection limit (see attached lab report for mdl's)
 NS = No Standard
 * Refers to the total concentration of PCBs in the sample
 SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006)
 BOLD = Concentration exceeds Residential Use (Track 2) Soil Cleanup Objectives
 Shading = Concentration exceeds Commercial Use (Track 1) Soil Cleanup Objectives
 Underline = Concentration exceeds Unrestricted Use (Track 1) Soil Cleanup Objectives

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Table 8. Summary of Waste Classification Parameters Detected in Soil
Phase II Subsurface Corridor Investigation for Storm Sewer in Coney Island Area
Brooklyn, New York

| Parameter | RCRA Hazardous Waste Levels | Sample ID and Date Collected | | | | | | | |
|-----------------------|-----------------------------|------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | | TCLP 1 9/22/2011 | TCLP 2 9/22/2011 | TCLP 3 9/23/2011 | TCLP 4 9/23/2011 | TCLP 5 9/23/2011 | TCLP 6 9/22/2011 | TCLP 7 9/22/2011 | TCLP 8 9/23/2011 |
| Ignitability | >140 °F | ND °F | ND °F | ND °F | ND °F | ND °F | ND °F | ND °F | ND °F |
| pH | >2 and < 12.5 | 10 | 7.9 | 7.6 | 7.9 | 7.6 | 8.7 | 8.2 | 7.7 |
| Reactive Cyanide | 250 mg/kg | ND mg/kg | ND mg/kg | ND mg/kg | ND mg/kg | ND mg/kg | ND mg/kg | ND mg/kg | ND mg/kg |
| Reactive Sulfide | 500 mg/kg | ND mg/kg | ND mg/kg | ND mg/kg | ND mg/kg | ND mg/kg | ND mg/kg | ND mg/kg | ND mg/kg |
| 1,1-Dichloroethane | 0.7 mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L |
| 1,2-Dichloroethane | 0.5 mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L |
| 1,4-Dichlorobenzene | 7.5 mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L |
| 2-Butanone | 200 mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L |
| Benzene | 0.5 mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L |
| Carbon tetrachloride | 0.5 mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L |
| Chlorobenzene | 100 mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L |
| Chloroform | 6 mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | 0.0018 mg/L | ND mg/L |
| Tetrachloroethene | 0.7 mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L |
| Trichloroethene | 0.5 mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L |
| Vinyl Chloride | 0.2 mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L |
| 2,4,5-Trichlorophenol | 400 mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L |
| 2,4,6-Trichlorophenol | 2 mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L |
| 2,4-Dinitrotoluene | 0.13 mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L |
| 2-Methylphenol | 200 mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L |
| 3,4-Methylphenol | 200 mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L |
| Hexachlorobenzene | 0.13 mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L |
| Hexachlorobutadiene | 0.6 mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L |
| Hexachloroethane | 3 mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L |
| Nitrobenzene | 2 mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L |
| Pentachlorophenol | 100 mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L |
| Pyridine | 5 mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L |
| Chlorodane | 0.03 mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L |
| Endrin | 0.02 mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L |
| Gamma-BHC | 0.4 mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L |
| Heptachlor | 0.008 mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L |
| Heptachlor epoxide | 0.008 mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L |
| Methoxychlor | 10 mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L |
| Toxaphene | 0.5 mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L |
| 2,4-D | 10 mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L |
| Silvex | 1 mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L |
| Arsenic | 5 mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L |
| Barium | 100 mg/L | 6.49 mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | 6.48 mg/L |
| Cadmium | 1 mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L |
| Chromium | 5 mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L |
| Lead | 5 mg/L | 0.71 mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L |
| Mercury | 0.2 mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L |
| Selenium | 1 mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L |
| Silver | 5 mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L | ND mg/L |

Notes:
 NS = No Standard
 ND = Compound not detected above method detection limit (see attached lab report for md's)
 N/A = Not Analyzed
 Bold = Positive detection
 Shaded = Concentration exceeds RCRA Hazardous Waste Level

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**Table 9. Summary of Target Compound List Volatile Organic Compounds Detected in Groundwater
Phase II Subsurface Corridor Investigation for Storm Sewer in Coney Island Area
Brooklyn, New York**

| TCL VOC | NYSDEC Class GA Groundwater Standards and Guidance Values | Sample ID, Sampling Date and Depth to Water | | | | | | | | |
|-------------------------|--|---|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-----------|------------|
| | | SB07GW | SB10GW | SB13GW | SB15GW | SB20GW | SB24GW | DUP01GW | FB01GW | Trip Blank |
| | | 9/22/2011 5.5' | 9/22/2011 5.5' | 9/22/2011 5.5' | 9/22/2011 5.5' | 9/22/2011 5.5' | 9/22/2011 5.5' | 9/22/2011 5.5' | 9/22/2011 | 9/22/2011 |
| 2-Butanone (MEK) | 50 | ND | ND | ND | ND | 20 | ND | ND | ND | ND |
| Benzene | 1 | ND | ND | ND | 0.53 | ND | ND | ND | ND | ND |
| Chloroform | 7 | ND | 1.8 | ND | ND | ND | ND | ND | ND | ND |
| Isopropylbenzene | 5 | ND | ND | ND | 13 | ND | ND | ND | ND | ND |
| Methyl tert-butyl ether | 10 | 1.2 | ND | ND | ND | ND | ND | ND | ND | ND |
| o-Xylene | 5 | ND | ND | ND | 1.6 | ND | ND | ND | ND | ND |
| Xylene (Total) | 5 | ND | ND | ND | 1.6 | ND | ND | ND | ND | ND |

Notes:

All concentrations are reported in parts per billion (ug/L)

Sample TWP04 was collected during the Grace Asphalt Plant Phase II ESI in November 2009

U = Unfiltered sample

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No standard

Bold = Positive detection

Shading = Concentration exceeds NYSDEC Class GA Groundwater Standards and Guidance Values

NYSDEC Class GA Groundwater Standards and Guidance Values as per NYSDEC Technical and Operational Guidance Series (TOGS)

**Table 10. Summary of Target Compound List Semi-Volatile Organic Compounds Detected in Groundwater
Phase II Subsurface Corridor Investigation for Storm Sewer in Coney Island Area
Brooklyn, New York**

| TCL SVOC | NYSDEC Class GA Groundwater Standards and Guidance Values | Sample ID, Sampling Date and Depth to Water | | | | | | | |
|---------------------|--|---|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-----------|
| | | SB07GW | SB10GW | SB13GW | SB15GW | SB20GW | SB24GW | DUP01GW | FB01GW |
| | | 9/22/2011 5.5' | 9/22/2011 5.5' | 9/22/2011 5.5' | 9/22/2011 5.5' | 9/22/2011 5.5' | 9/22/2011 5.5' | 9/22/2011 5.5' | 9/22/2011 |
| 2,4-Dimethylphenol | 50 | ND | ND | ND | 2.2 | ND | ND | ND | ND |
| 2-Methylnaphthalene | NS | ND | ND | ND | 7.8 | ND | ND | ND | ND |
| 4-Methylphenol | NS | ND | ND | ND | 3 | ND | ND | ND | ND |
| Acenaphthene | 20 | ND | ND | ND | 11 | ND | ND | ND | ND |
| Carbazole | NS | ND | ND | ND | 2.1 | ND | ND | ND | ND |
| Dibenzofuran | NS | ND | 1.8 | ND | 6.9 | ND | ND | ND | ND |
| Fluorene | 50 | ND | ND | ND | 4.4 | ND | ND | ND | ND |
| Naphthalene | 10 | ND | ND | ND | 2.8 | ND | ND | ND | ND |
| Phenanthrene | 50 | ND | ND | ND | 6.2 | ND | ND | ND | ND |

Notes:

All concentrations are reported in parts per billion (ug/L)

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No standard

NA = Not Analyzed

Bold = Positive detection

Shading = Concentration exceeds NYSDEC Class GA Groundwater Standards and Guidance Values

NYSDEC Class GA Groundwater Standards and Guidance Values as per NYSDEC Technical and Operational Guidance Series (TOGS)

Table 11. Summary of Target Analyte List Metals Detected in Groundwater
Phase II Subsurface Corridor Investigation for Storm Sewer in Coney Island Area
Brooklyn, New York

| Target Analyte List Metal | NYSDEC Class GA Groundwater Standards and Guidance Values | Sample ID, Sampling Date and Depth to Water | | | | | | | | | | | | | | |
|---------------------------|---|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | | SB07GW | SB07GW-F | SB10GW | SB10GW-F | SB13GW | SB13GW-F | SB15GW | SB15GW-F | SB20GW | SB20GW-F | SB24GW | SB24GW-F | DUP01GW | DUP01GW-F | FB01GW |
| | | 9/22/2011 | 9/22/2011 | 9/22/2011 | 9/22/2011 | 9/22/2011 | 9/22/2011 | 9/22/2011 | 9/22/2011 | 9/22/2011 | 9/22/2011 | 9/22/2011 | 9/22/2011 | 9/22/2011 | 9/22/2011 | 9/22/2011 |
| Aluminum | NS | 870 | ND | ND | 120 | ND | ND | 1000 | ND | ND | ND | 390 | ND | ND | ND | ND |
| Antimony | 3 | ND | ND | 16 | 18 | ND | ND | ND | ND | 14 | ND | ND | ND | 7.7 | ND | ND |
| Barium | 1000 | 270 | 110 | 150 | 150 | 81 | 83 | 310 | 290 | 77 | 75 | 75 | 63 | 72 | 71 | ND |
| Calcium Metal | NS | 120000 B | 120000 | 160000 B | 160000 | 88000 B | 88000 | 190000 B | 180000 | 220000 B | 220000 | 140000 B | 140000 | 210000 B | 220000 | ND |
| Chromium (Hexavalent) | NS | ND | ND | ND | ND | ND | ND | 47 | ND | ND | ND | ND | ND | ND | ND | ND |
| Copper | 200 | 57 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Iron | 300 | 29000 | ND | 2100 | ND | 1790 | ND | 2800 | 1100 | 2500 | ND | 1808 | ND | 2660 | ND | ND |
| Lead | 25 | 180 | ND | ND | ND | ND | ND | 14 | ND | ND | ND | 22 | ND | ND | ND | ND |
| Magnesium | 35000 | 24000 | 25000 | 21000 | 22000 | 220000 | 220000 | 150000 | 150000 | 600000 | 630000 | 120000 | 120000 | 590000 | 620000 | ND |
| Manganese | 300 | 380 | 350 | 160 | 140 | ND | ND | 300 | 370 | 140 | 140 | 150 | 150 | 160 | 150 | ND |
| Mercury | 0.7 | 0.39 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Nickel | 100 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 12 | 12 | ND | ND | ND |
| Potassium | NS | 15000 | 16000 | 27000 | 29000 | 120000 | 130000 | 92000 | 94000 | 240000 | 270000 | 61000 | 63000 | 240000 | 260000 | ND |
| Sodium | 20000 | 80000 | 84000 | 200000 | 200000 | 2400000 | 2300000 | 2900000 | 2500000 | 5900000 | 540000 | 770000 | 740000 | 5200000 | 5200000 | ND |
| Zinc | 2000 | 170 | 26 | 78 | 59 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

Notes:

All concentrations are reported in parts per billion (ug/L)

ND = Compound not detected above method detection limit (see attached lab report for md's)

NS = No standard

NA = Not Analyzed

Bold = Positive detection

Shading = Concentration exceeds NYSDEC Class GA Groundwater Standards and Guidance Values

NYSDEC Class GA Groundwater Standards and Guidance Values as per NYSDEC Technical and Operational Guidance Series (TOGS)

Table 12. Summary of Pesticides Detected in Groundwater
Phase II Subsurface Corridor Investigation for Storm Sewer in Coney Island Area
Brooklyn, New York

| Pesticide | NYSDEC Class GA Groundwater Standards and Guidance Values | Sample ID, Sampling Date and Depth to Water | | | | | | | |
|--------------|---|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | | SB07GW | SB10GW | SB13GW | SB15GW | SB20GW | SB24GW | DUP01GW | FB01GW |
| | | 9/22/2011 | 9/22/2011 | 9/22/2011 | 9/22/2011 | 9/22/2011 | 9/22/2011 | 9/22/2011 | 9/22/2011 |
| Not Detected | NS | 5.5' | 5.5' | 5.5' | 5.5' | 5.5' | 5.5' | 5.5' | 5.5' |
| | | ND | ND | ND | ND | ND | ND | ND | ND |

Notes:

All concentrations are reported in parts per billion (ug/L)

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No standard

NA = Not Analyzed

Bold = Positive detection

Shading = Concentration exceeds NYSDEC Class GA Groundwater Standards and Guidance Values

NYSDEC Class GA Groundwater Standards and Guidance Values as per NYSDEC Technical and

Operational Guidance Series (TOGS)

Table 13. Summary of Herbicides Detected in Groundwater
Phase II Subsurface Corridor Investigation for Storm Sewer in Coney Island Area
Brooklyn, New York

| Herbicide | NYSDEC Class GA Groundwater Standards and Guidance Values | Sample ID, Sampling Date and Depth to Water | | | | | | | |
|-----------------------------|--|---|---------------|---------------|---------------|---------------|---------------|----------------|---------------|
| | | SB07GW | SB10GW | SB13GW | SB15GW | SB20GW | SB24GW | DUP01GW | FB01GW |
| | | 9/22/2011 | 9/22/2011 | 9/22/2011 | 9/22/2011 | 9/22/2011 | 9/22/2011 | 9/22/2011 | 9/22/2011 |
| No Herbicides were detected | NS | 5.5' | 5.5' | 5.5' | 5.5' | 5.5' | 5.5' | 5.5' | 5.5' |
| | | ND | ND | ND | ND | ND | ND | ND | ND |

Notes:

All concentrations are reported in parts per million (mg/L)

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No standard

NA = Not Analyzed

Bold = Positive detection

Shading = Concentration exceeds NYSDEC Class GA Groundwater Standards and Guidance Values

NYSDEC Class GA Groundwater Standards and Guidance Values as per NYSDEC Technical and Operational Guidance Series (TOGS)

Underline = Concentration exceeds Limitation to Combined Sewers

**Table 14. Summary of Polychlorinated Biphenyls Detected in Groundwater
Phase II Subsurface Corridor Investigation for Storm Sewer in Coney Island Area
Brooklyn, New York**

| PCB | NYSDEC Class GA Groundwater Standards and Guidance Values | Sample ID, Sampling Date and Depth to Water | | | | | | | |
|--------------|--|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | | SB07GW | SB10GW | SB13GW | SB15GW | SB20GW | SB24GW | DUP01GW | FB01GW |
| | | 9/22/2011 | 9/22/2011 | 9/22/2011 | 9/22/2011 | 9/22/2011 | 9/22/2011 | 9/22/2011 | 9/22/2011 |
| | | 5.5' | 5.5' | 5.5' | 5.5' | 5.5' | 5.5' | 5.5' | |
| Not Detected | NS | ND | ND | ND | ND | ND | ND | ND | ND |

Notes:

All concentrations are reported in parts per billion (ug/L)

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No standard

NA = Not Analyzed

Bold = Positive detection

Shading = Concentration exceeds NYSDEC Class GA Groundwater Standards and Guidance Values

NYSDEC Class GA Groundwater Standards and Guidance Values as per NYSDEC Technical and Operational Guidance Series (TOGS)

Underline = Concentration exceeds Limitation to Combined Sewers

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Table 15. Groundwater Quality Compared to New York City Department of Environmental Protection
 Limitations for Effluent to Sanitary or Combined Sewers
 Phase II Subsurface Corridor Investigation for Storm Sewer in Coney Island Area
 Brooklyn, New York

| Parameter ¹ | NYC DEP Limitations to Sanitary or Combined Sewers | | Sample ID, Date Collected and DTW | | | | | | | | | | |
|--------------------------------------|--|------|-----------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-------|-------|
| | | | SB07GW | SB10GW | SB13GW | SB16GW | SB20GW | SB24GW | DUP01GW | FB01GW | | | |
| | | | 0/22/2011 | 0/22/2011 | 0/22/2011 | 0/22/2011 | 0/22/2011 | 0/22/2011 | 0/22/2011 | 0/22/2011 | 0/22/2011 | | |
| Non-Polar Material ² | 50 | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Flesh Point - Liquid/Solid | > 140 | °F | > 141 | > 141 | > 141 | > 141 | > 141 | > 141 | > 141 | > 141 | > 141 | > 141 | > 141 |
| pH | >2 and <10 | | 6.8 | 7.3 | 7.2 | 6.8 | 6.8 | 7.1 | 6.8 | 6.8 | 6.8 | 6.8 | 6.8 |
| Cadmium (Instantaneous or Composite) | 2 or 0.69 | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chromium Hexavalent (VI) | 5 | mg/L | ND | ND | ND | 0.047 | ND | ND | ND | ND | ND | ND | ND |
| Copper | 5 | mg/L | 0.067 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Lead | 2 | mg/L | 0.18 | ND | ND | 0.014 | ND | 0.022 | ND | ND | ND | ND | ND |
| Mercury | 0.05 | mg/L | 0.00639 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Nickel | 3 | mg/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Zinc | 5 | mg/L | 0.17 | 0.078 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Benzene | 134 | ug/L | ND | ND | ND | 0.83 | ND | ND | ND | ND | ND | ND | ND |
| Carbon tetrachloride | NS | ug/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chloroform | NS | ug/L | ND | 1.8 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,4 Dioxibenzene | NS | ug/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Ethylbenzene | 380 | ug/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| MTBE (Methyl-Tert-Butyl-Ether) | 50 | ug/L | 1.2 | ND | ND | 2.8 | ND | ND | ND | ND | ND | ND | ND |
| Naphthalene | 47 | ug/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Phenol | NS | ug/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tetrachloroethane | 20 | ug/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Toluene | 74 | ug/L | ND | ND | ND | 1.8 | ND | ND | ND | ND | ND | ND | ND |
| 1,2,4 Trichlorobenzene | NS | ug/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,1 Trichloroethane | NS | ug/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Xylenes (Total) | 74 | ug/L | ND | ND | ND | 1.8 | ND | ND | ND | ND | ND | ND | ND |
| PCBs (Total) ³ | 1 | ug/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Total Suspended Solids | 350 | mg/L | 98 | 8.4 | ND | 220 | 20 | 7.2 | ND | ND | ND | ND | ND |
| CBOD ⁵ | NS | mg/L | ND | ND | ND | ND | 6.8 | 3.1 | 4.1 | ND | ND | ND | ND |
| Chloride ⁴ | NS | mg/L | 130 | 150 | 4200 | 6000 | 9800 | 1500 | 8200 | ND | ND | ND | ND |
| Total Nitrogen ⁴ | NS | mg/L | ND | 8.4 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Total Solids ⁴ | NS | mg/L | 800 | 1400 | 3000 | 11000 | 6500 | 3900 | 10000 | ND | ND | ND | ND |

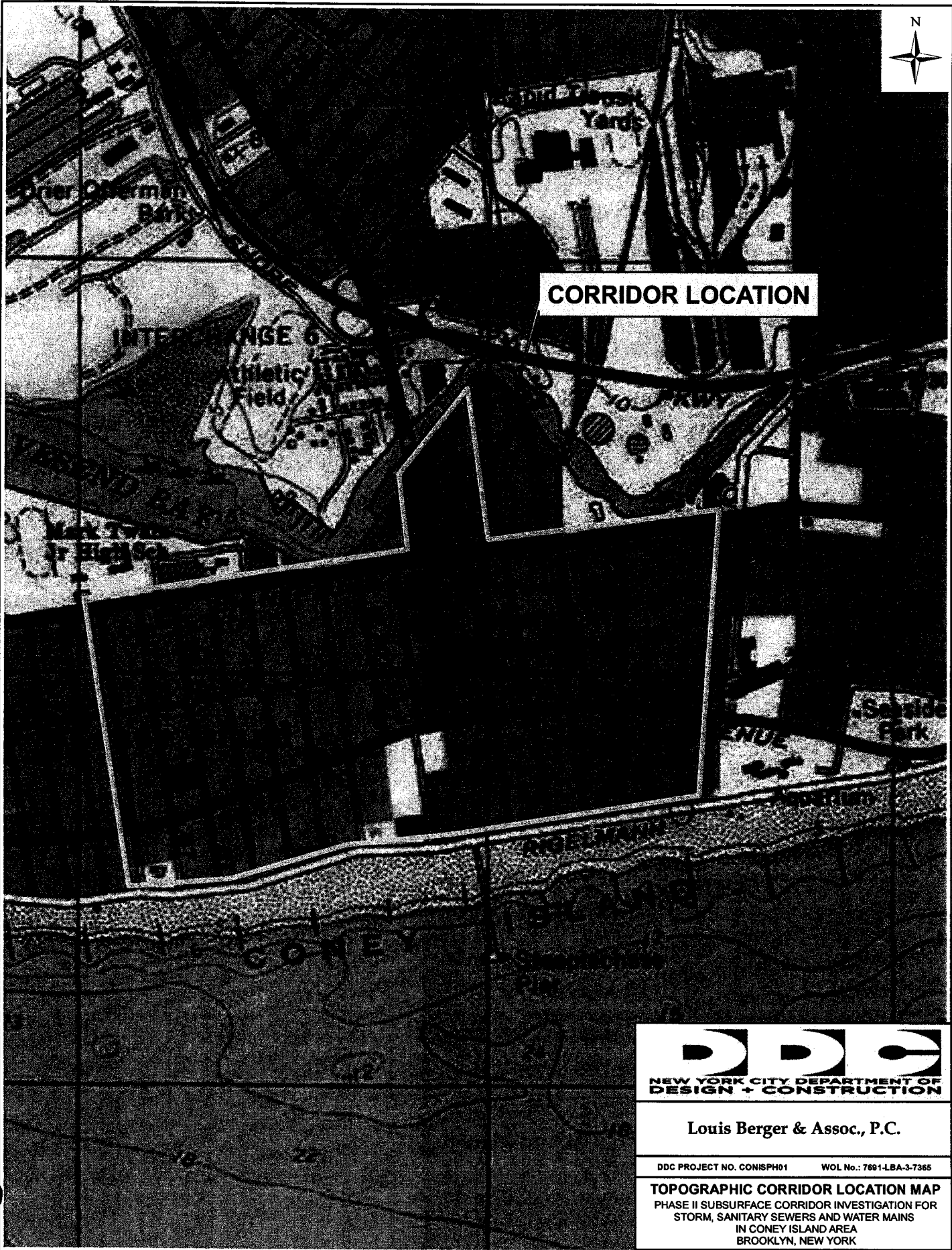
Notes:
 All concentrations are reported in parts per million (ppm or mg/L) or parts per billion (ppb or ug/L)
 N/A = Compound or sample characteristic not analyzed
 NS = No Standard
 ND = Compound not detected above method detection limit (see attached lab report for md's)
 Bold = Positive detection
BOLD and Shaded = Concentration exceeds NYCDEP Limitations for Effluent to Sanitary or Combined Sewers (daily limit)
¹ All handling and preservation of collected samples and laboratory analyses of samples was performed in accordance with 40 CFR Part 136.
² Analysis for non-polar materials was performed by EPA method 1664.
³ Analysis for PCBs was performed according to EPA method 808 with method detection limit = <05 parts per trillion
 Analysis for PCBs is required if discharge >= 10,000 gallons per day (gpd) and duration of discharge > 10 days.
⁴ For discharge >= 10,000 gpd, the TSS limit is 350 mg/L. For discharge < 10,000 gpd, the limit is determined on a case by case basis.
⁵ Analysis for Carbonaceous Biochemical Oxygen Demand (CBOD), Chloride, Total Solids, and Total Nitrogen are required if proposed discharge >= 10,000 gpd

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FIGURE 1 – TOPOGRAPHIC CORRIDOR LOCATION MAP

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CORRIDOR LOCATION



Louis Berger & Assoc., P.C.

DDC PROJECT NO. CONISPH01 WOL No.: 7691-LBA-3-7365

TOPOGRAPHIC CORRIDOR LOCATION MAP
PHASE II SUBSURFACE CORRIDOR INVESTIGATION FOR
STORM, SANITARY SEWERS AND WATER MAINS
IN CONEY ISLAND AREA
BROOKLYN, NEW YORK

Source: USGS Quadrangle Coney Island, New York

SCALE: 1" = 1000' | DATE: 10/25/2011 | FIGURE: 1

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FIGURE 2 – HIGH AND MODERATE RISK SITES

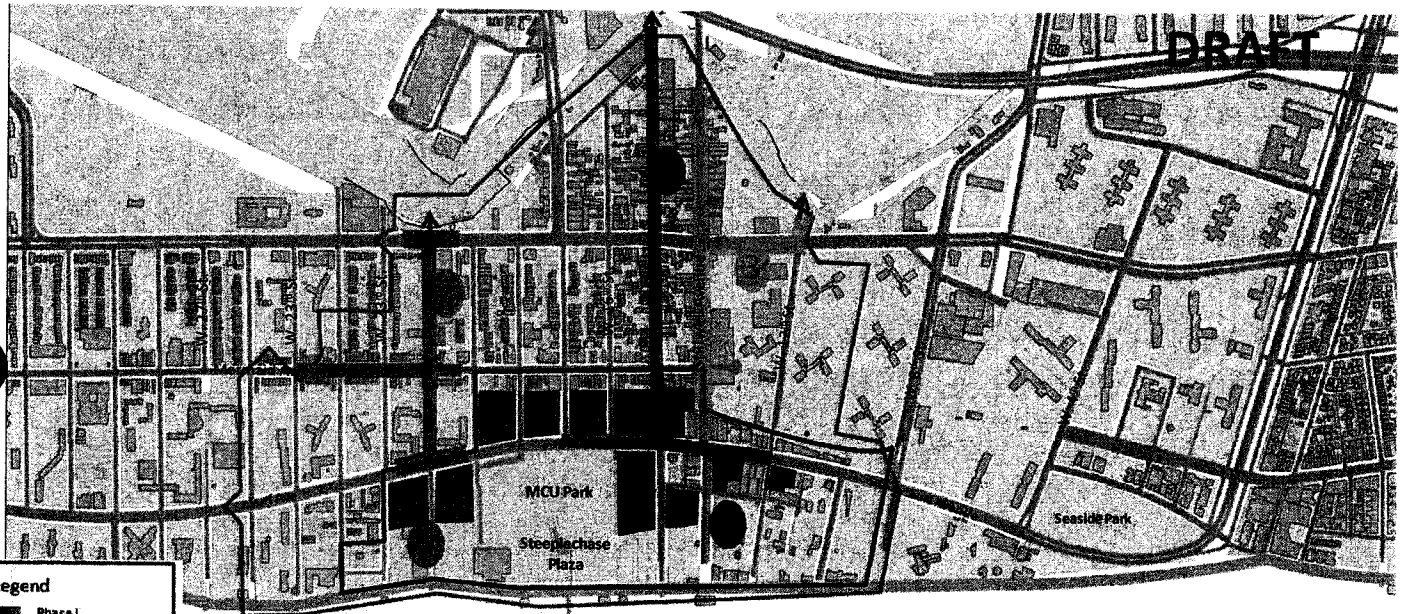


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FIGURE 3 - PROPOSED INFRASTRUCTURE IMPLEMENTATION MAP

DRAFT



Legend

- Phase 1
- Phase 2
- Phase 3
- Phase 4
- Phase 5
- Development Sites
- Outfall Area

Source: NYCEDC

DBE
 NEW YORK CITY DEPARTMENT OF
 DESIGN + CONSTRUCTION

Louis Berger & Assoc., P.C.

DDC PROJECT NO. C088P001 WOL No. 1001-LSA-0-2008

**PROPOSED INFRASTRUCTURE
 IMPLEMENTATION MAP**
 PHASE I CORRIDOR ASSESSMENT REPORT
 STORM, SANITARY SEWERS AND WATER MAINS
 IN CONEY ISLAND AREA, BROOKLYN, NEW YORK

SCALE = NTS DATE: 10/29/2011 FIGURE: 3



FIGURE 4 - SAMPLE LOCATION PLAN



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FIGURE 5 - SAMPLE LOCATION PLAN (PHASES 1 AND 3)



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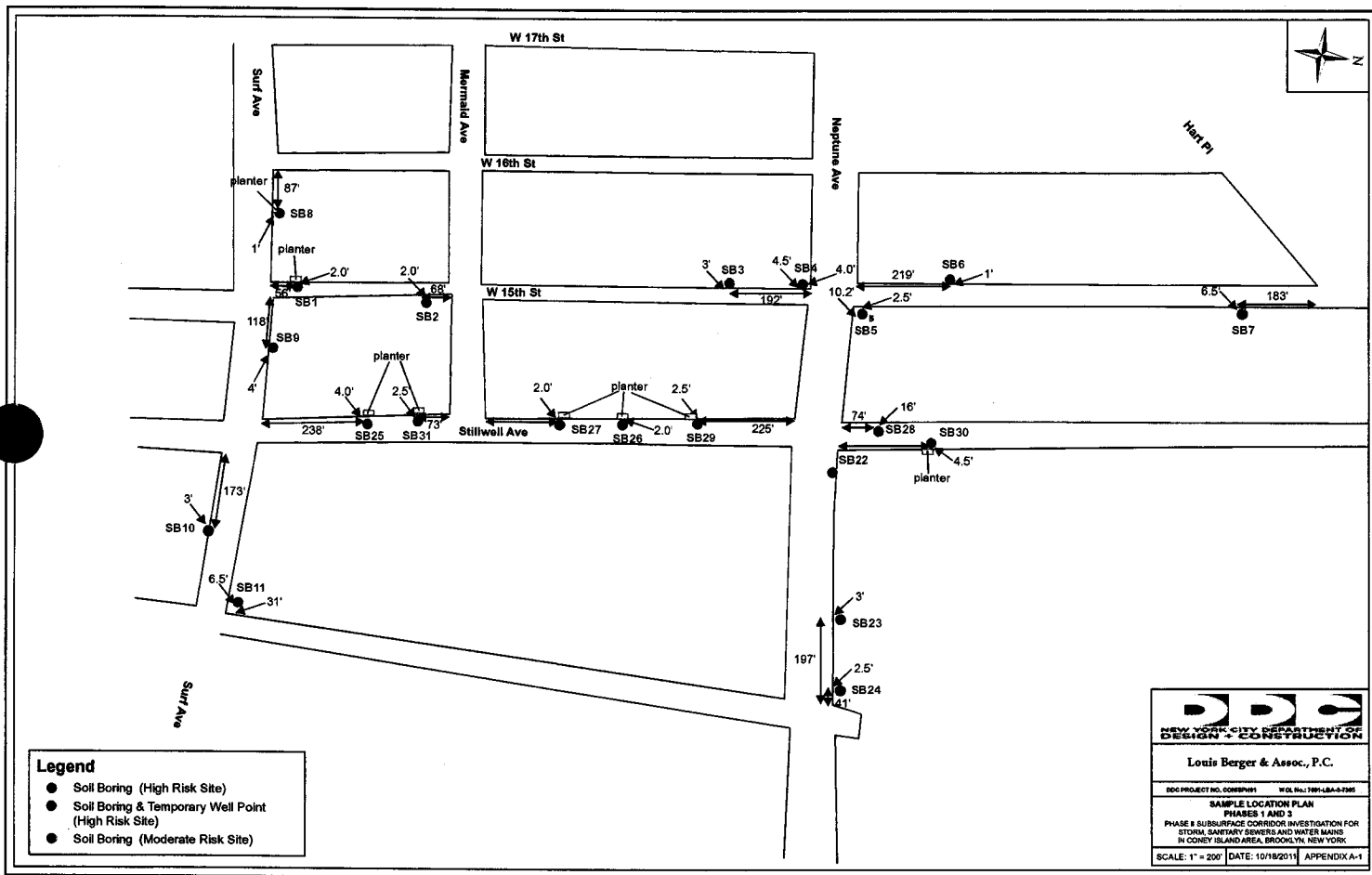
FIGURE 6 - SAMPLE LOCATION PLAN (PHASE 2)



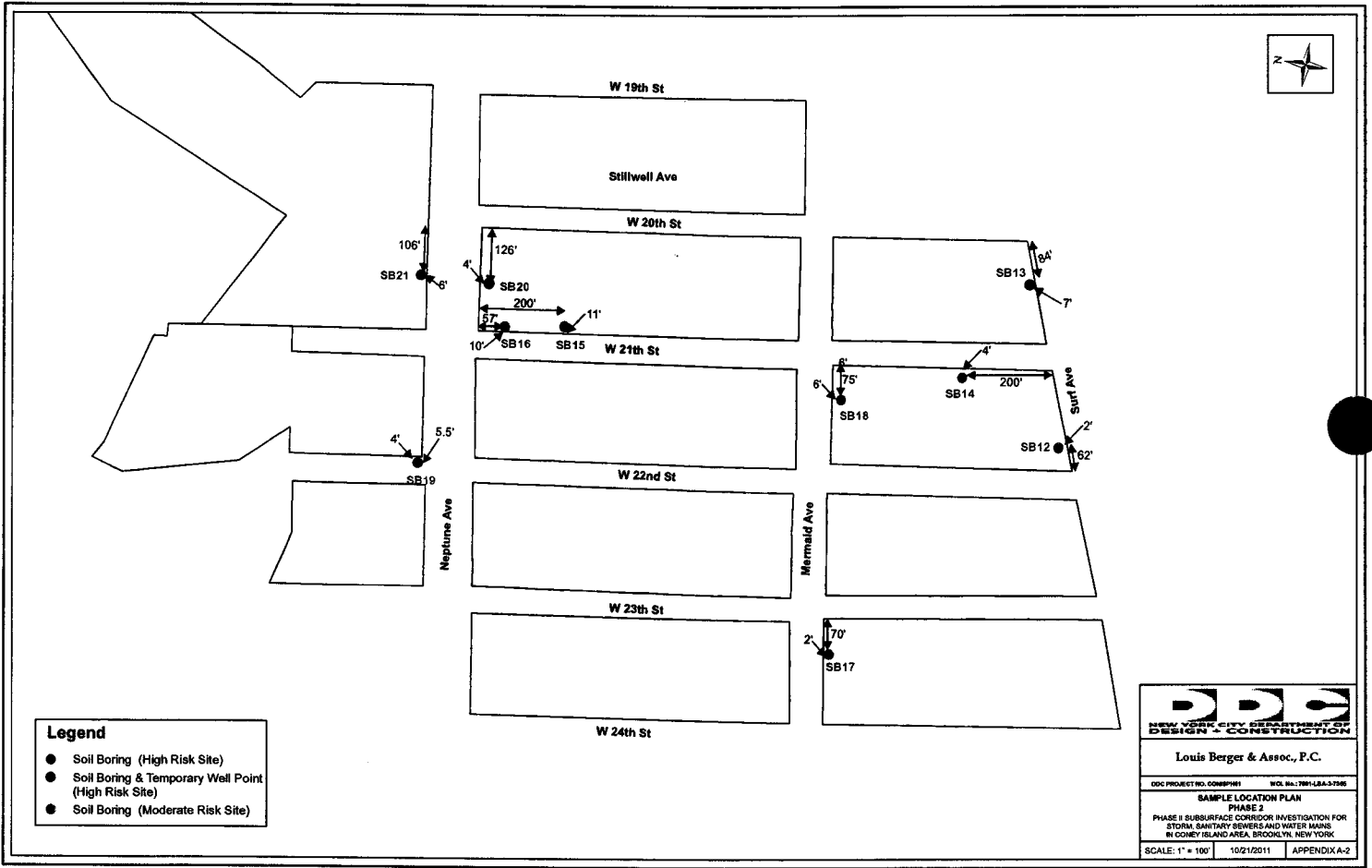
A5-113



APPENDIX A
BORING LOCATION PLAN



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APPENDIX B
GEOLOGIC BORING LOGS AND TEMPORARY WELL
CONSTRUCTION DETAILS

| | | | |
|--|--------------------------------------|------------------------------------|--------------------------------|
| Louis Berger & Assoc., P.C. 48 Wall Street, 16th Floor New York, New York 10005 | <h1>Drilling Log</h1> Page 1 of 1 | | BORING ID: SB01 |
| | | | WELL ID: N/A |
| | | | LOCATION: Brooklyn, NY |
| CLIENT: New York City Department of Design and Construction | | | PROJECT NO: SPC870H7 |
| PROJECT: Coney Island Area-Surf Ave Between W 8th Str and 10th Str | | | FMS ID#: CONISPH01 |
| DRILLING CONTRACTOR: Aquifer Drilling and Testing, Inc. | | | WOL #: 7691-LBA-3-7365 |
| DRILLING METHOD: Geoprobe Direct Push | | | DATE STARTED: 9/19/2011 |
| BOREHOLE DATA | | WELL DATA | |
| Diameter (in): 2 | Well Diameter: N/A | DRILLER: C. Iodice | |
| Total Depth (ft): 10.00 | Total Depth (ft): N/A | LBA INSPECTOR: J. Lacanlale | |
| Depth to Refusal (ft): N/A | Screen Length (ft): N/A | NORTHING: N/A | |
| Depth to Water (ft): 5.5 | Depth to Water (ft): N/A | EASTING: N/A | |
| Depth to Rock (ft): N/A | Slot Size: N/A | SURFACE ELEVATION: N/A | |
| NOTES: | | | |

| Well Construction | Depth | Lithology | USCS | Sample Interval | Sample Recovery | Blows/6 in | PID (ppm) | Description | Remarks |
|-------------------|-------|-----------|------|-----------------|-----------------|------------|-----------|---|---|
| | 0 | | SP | | | | <1 | Pale yellowish brown (10YR6/2) medium to fine SAND, trace Silt, trace fine Gravel; moist. | Sand |
| | 2 | | | | | | | | |
| | 4 | | | | | | | | Composite soil sample SB01 collected from 0 to 5.5 ft bgs; VOC collected from 5.0 to 5.5 ft bgs |
| | 6 | | SP | | | | <1 | Light gray (N7) medium to fine SAND, trace Silt; wet. | Water Level at 5.5 ft bgs |
| | 8 | | | | | | | | |
| | 10 | | | | | | | | End of Boring at 10 ft bgs |

Louis Berger & Assoc., P.C.
48 Wall Street, 16th Floor
New York, New York 10005

Drilling Log

Page 1 of 1

BORING ID: SB02
WELL ID: N/A
LOCATION: Brooklyn, NY

CLIENT: New York City Department of Design and Construction
PROJECT: Coney Island Area-Surf Ave Between W 8th Str and 10th Str
DRILLING CONTRACTOR: Aquifer Drilling and Testing, Inc.
DRILLING METHOD: Geoprobe Direct Push

PROJECT NO: SPC870H7
FMS ID#: CONISPH01
WOL #: 7691-LBA-3-7365
DATE STARTED: 9/19/2011
DATE FINISHED: 9/19/2011

| BOREHOLE DATA | | WELL DATA | |
|------------------------|-------|----------------------|-----|
| Diameter (in): | 2 | Well Diameter: | N/A |
| Total Depth (ft): | 10.00 | Total Depth (ft): | N/A |
| Depth to Refusal (ft): | N/A | Screen Length (ft): | N/A |
| Depth to Water (ft): | 5.5 | Depth to Water (ft): | N/A |
| Depth to Rock (ft): | N/A | Slot Size: | N/A |

DRILLER: C. Iodice
LBA INSPECTOR: J. Lacanlale
NORTHING: N/A
EASTING: N/A
SURFACE ELEVATION: N/A

NOTES:

| Well Construction | Depth | Lithology | USCS | Sample Interval | Sample Recovery | Blows/6 in | PID (ppm) | Description | Remarks |
|-------------------|-------|-----------|------|-----------------|-----------------|------------|-----------|--|--|
| | 0 | | SP | | | | <1 | Moderate yellowish brown (10YR5/4) medium to fine SAND, trace Silt, little fine Gravel; moist. | Sand |
| | 2 | | | | | | | | Compositesoil sample SB02 collected from 0 to 5.5 ft bgs; VOC collected from 5.0 to 5.5 ft bgs |
| | 4 | | | | | | | | |
| | 6 | | SP | | | | <1 | Light gray (N7) medium to fine SAND, trace Silt; wet. | Water Level at 5.5 ft bgs |
| | 8 | | | | | | | | End of Boring at 10 ft bgs |
| | 10 | | | | | | | | |

| | | |
|--|--------------------------------------|-------------------------------|
| Louis Berger & Assoc., P.C. 48 Wall Street, 16th Floor New York, New York 10005 | <h1>Drilling Log</h1> Page 1 of 1 | BORING ID: SB03 |
| | | WELL ID: N/A |
| | | LOCATION: Brooklyn, NY |

| | |
|---|--------------------------------|
| CLIENT: New York City Department of Design and Construction | PROJECT NO: SPC870H7 |
| PROJECT: Coney Island Area-Surf Ave Between W 8th Str and 10th Str | FMS ID#: CONISPH01 |
| DRILLING CONTRACTOR: Aquifer Drilling and Testing, Inc. | WOL #: 7691-LBA-3-7365 |
| DRILLING METHOD: Geoprobe Direct Push | DATE STARTED: 9/19/2011 |

| BOREHOLE DATA | | WELL DATA | |
|-----------------------------------|---------------------------------|------------------------------------|---------------------------------|
| Diameter (in): 2 | Well Diameter: N/A | DRILLER: C. Iodice | DATE FINISHED: 9/19/2011 |
| Total Depth (ft): 10.00 | Total Depth (ft): N/A | LBA INSPECTOR: J. Lacanlale | |
| Depth to Refusal (ft): N/A | Screen Length (ft): N/A | NORTHING: N/A | |
| Depth to Water (ft): 5.5 | Depth to Water (ft): N/A | EASTING: N/A | |
| Depth to Rock (ft): N/A | Slot Size: N/A | SURFACE ELEVATION: N/A | |

NOTES:

| Well Construction | Depth | Lithology | USCS | Sample Interval | Sample Recovery | Blows/6 in | PID (ppm) | Description | Remarks |
|-------------------|-------|-----------|------|-----------------|-----------------|------------|-----------|---|--|
| | 0 | | SP | | | | <1 | Moderate yellowish brown (10YR5/4) medium to fine SAND, trace Silt, little coars to fine Gravel; moist. | Sand |
| | 2 | | SP | | | | <1 | Pale yellowish brown (10YR6/2) medium to fine SAND, trace Silt, trace fine Gravel; moist. | |
| | 4 | | SP | | | | <1 | Pale yellowish brown (10YR6/2) medium to fine SAND, trace Silt; moist. | |
| | 6 | | SP | | | | <1 | Light gray (N7) medium to fine SAND, trace Silt; wet. | Water Level at 5.5 ft bgs Composite soil sample SB03 collected from 0 to 5.5 ft bgs; VOC collected from 5.0 to 5.5 ft bgs |
| | 8 | | SM | | | | <1 | Medium dark gray (N4) Clayey SILT, little medium to fine Sand, little peat; wet. | Clayey Silt |
| | 10 | | | | | | | | End of Boring at 10 ft bgs |

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| | | |
|---|------------------------------------|------------------------------------|
| Louis Berger & Assoc., P.C. 48 Wall Street, 16th Floor New York, New York 10005 | Drilling Log Page 1 of 1 | BORING ID: SB04 |
| | | WELL ID: N/A |
| CLIENT: New York City Department of Design and Construction | | LOCATION: Brooklyn, NY |
| | | PROJECT NO: SPC870H7 |
| PROJECT: Coney Island Area-Surf Ave Between W 8th Str and 10th Str | | FMS ID#: CONISPH01 |
| DRILLING CONTRACTOR: Aquifer Drilling and Testing, Inc. | | WOL #: 7691-LBA-3-7365 |
| DRILLING METHOD: Geoprobe Direct Push | | DATE STARTED: 9/19/2011 |
| BOREHOLE DATA | | WELL DATA |
| Diameter (in): 2 | Well Diameter: N/A | DATE FINISHED: 9/19/2011 |
| Total Depth (ft): 10.00 | Total Depth (ft): N/A | DRILLER: C. Iodice |
| Depth to Refusal (ft): N/A | Screen Length (ft): N/A | LBA INSPECTOR: J. Lacanlale |
| Depth to Water (ft): 5.5 | Depth to Water (ft): N/A | NORTHING: N/A |
| Depth to Rock (ft): N/A | Slot Size: N/A | EASTING: N/A |
| | | SURFACE ELEVATION: N/A |

NOTES:

| Well Construction | Depth | Lithology | USCS | Sample Interval | Sample Recovery | Blows/6 in | PID (ppm) | Description | Remarks |
|-------------------|-------|-----------|----------|-----------------|-----------------|------------|-----------|--|---|
| | 0 | | SP | | | | <1 | Very pale orange (10YR8/2) medium to fine SAND, trace Silt, trace fine Gravel; moist. | Sand |
| | 2 | | | | | | | | |
| | 4 | | | | | | | | Composite soil sample SB04 collected from 0 to 5.5 ft bgs; VOC collected from 5.0 to 5.5 ft bgs |
| | 6 | | SP SP | | | | <1 <1 | Very pale orange (10YR8/2) medium to fine SAND, trace Silt, trace fine Gravel; moist. Medium dark gray (N4) medium to fine SAND, trace Silt; wet. | Water Level at 5.5 ft bgs |
| | 8 | | | | | | | | |
| | 10 | | | | | | | | End of Boring at 10 ft bgs |

| | | |
|--|--|-------------------------------|
| Louis Berger & Assoc., P.C. 48 Wall Street, 16th Floor New York, New York 10005 | <h1 style="margin: 0;">Drilling Log</h1> <p style="margin: 0;">Page 1 of 1</p> | BORING ID: SB05 |
| | | WELL ID: N/A |
| | | LOCATION: Brooklyn, NY |

| | |
|---|--------------------------------|
| CLIENT: New York City Department of Design and Construction | PROJECT NO: SPC870H7 |
| PROJECT: Coney Island Area-Surf Ave Between W 8th Str and 10th Str | FMS ID#: CONISPH01 |
| DRILLING CONTRACTOR: Aquifer Drilling and Testing, Inc. | WOL #: 7691-LBA-3-7365 |
| DRILLING METHOD: Geoprobe Direct Push | DATE STARTED: 9/19/2011 |

| BOREHOLE DATA | | WELL DATA | |
|-----------------------------------|--|---------------------------------|------------------------------------|
| Diameter (in): 2 | | Well Diameter: N/A | DRILLER: C. Iodice |
| Total Depth (ft): 10.00 | | Total Depth (ft): N/A | LBA INSPECTOR: J. Lacanlale |
| Depth to Refusal (ft): N/A | | Screen Length (ft): N/A | NORTHING: N/A |
| Depth to Water (ft): 6 | | Depth to Water (ft): N/A | EASTING: N/A |
| Depth to Rock (ft): N/A | | Slot Size: N/A | SURFACE ELEVATION: N/A |

NOTES:

| Well Construction | Depth | Lithology | USCS | Sample Interval | Sample Recovery | Blows/6 in | PID (ppm) | Description | Remarks |
|-------------------|-------|-----------|------|-----------------|-----------------|------------|-----------|--|--|
| | 0 | | SP | | | | <1 | Dark yellowish orange (10YR6/6) medium to fine SAND, trace Silt, trace Gravel; moist. | Sand |
| | 2 | | | | | | | | |
| | 4 | | | | | | | | |
| | 6 | | SP | | | | <1 | Dark yellowish brown (10YR4/2) medium to fine SAND, trace Silt, little medium to fine Gravel; wet. | Composite soil sample SB05 collected from 0 to 6 ft bgs; VOC collected from 5.5 to 6.0 ft bgs Water Level at 6 ft bgs |
| | 8 | | | | | | | | |
| | 10 | | | | | | | | End of Boring at 10 ft bgs |

| | | |
|---|--|-------------------------------|
| Louis Berger & Assoc., P.C. 48 Wall Street, 16th Floor New York, New York 10005 | <h1 style="margin: 0;">Drilling Log</h1> <p style="margin: 0;">Page 1 of 1</p> | BORING ID: SB06 |
| | | WELL ID: N/A |
| | | LOCATION: Brooklyn, NY |

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|---|--------------------------------|
| CLIENT: New York City Department of Design and Construction | PROJECT NO: SPC870H7 |
| PROJECT: Coney Island Area-Surf Ave Between W 8th Str and 10th Str | FMS ID#: CONISPH01 |
| DRILLING CONTRACTOR: Aquifer Drilling and Testing, Inc. | WOL #: 7691-LBA-3-7365 |
| DRILLING METHOD: Geoprobe Direct Push | DATE STARTED: 9/19/2011 |

| BOREHOLE DATA | | WELL DATA | | DATE FINISHED: |
|-----------------------------------|--|---------------------------------|--|------------------------------------|
| Diameter (in): 2 | | Well Diameter: N/A | | DRILLER: C. Iodice |
| Total Depth (ft): 10.00 | | Total Depth (ft): N/A | | LBA INSPECTOR: J. Lacanlale |
| Depth to Refusal (ft): N/A | | Screen Length (ft): N/A | | NORTHING: N/A |
| Depth to Water (ft): 6 | | Depth to Water (ft): N/A | | EASTING: N/A |
| Depth to Rock (ft): N/A | | Slot Size: N/A | | SURFACE ELEVATION: N/A |

NOTES:

| Well Construction | Depth | Lithology | USCS | Sample Interval | Sample Recovery | Blows/6 in | PID (ppm) | Description | Remarks |
|-------------------|-------|-----------|------|-----------------|-----------------|------------|-----------|---|--|
| | 0 | | SP | | | | <1 | Dusky yellowish brown (10YR2/2) coarse to fine SAND, trace Silt, some coarse to fine Gravel; moist. | Gravelly Sand |
| | 2 | | | | | | | | Compositesoil sample SB06 collected from 0 to 6 ft bgs; VOC collected from 5.5 to 6.0 ft bgs |
| | 4 | | | | | | | | |
| | 6 | | SM | | | | <1 | Dusky yellowish brown (10YR2/2) Clayey SILT, little peat; wet. | Clayey Silt |
| | 8 | | | | | | | | Water Level at 6 ft bgs |
| | 10 | | | | | | | | End of Boring at 10 ft bgs |

| | | |
|--|--|------------------------------------|
| Louis Berger & Assoc., P.C. 48 Wall Street, 16th Floor New York, New York 10005 | <h1 style="margin: 0;">Drilling Log</h1> <p style="margin: 0;">Page 1 of 1</p> | BORING ID: SB07 |
| | | WELL ID: SB07GW |
| | | LOCATION: Brooklyn, NY |
| CLIENT: New York City Department of Design and Construction | | PROJECT NO: SPC870H7 |
| PROJECT: Coney Island Area-Surf Ave Between W 8th Str and 10th Str | | FMS ID#: CONISPH01 |
| DRILLING CONTRACTOR: Aquifer Drilling and Testing, Inc. | | WOL #: 7691-LBA-3-7365 |
| DRILLING METHOD: Geoprobe Direct Push | | DATE STARTED: 9/22/2011 |
| BOREHOLE DATA | | WELL DATA |
| Diameter (in): 2 | Well Diameter: Temporary We | DRILLER: C. Iodice |
| Total Depth (ft): 10.00 | Total Depth (ft): 10 | LBA INSPECTOR: J. Lacanlale |
| Depth to Refusal (ft): N/A | Screen Length (ft): 10/0.010 | NORTHING: N/A |
| Depth to Water (ft): 5.5 | Depth to Water (ft): 10 | EASTING: N/A |
| Depth to Rock (ft): N/A | Slot Size: N/A | SURFACE ELEVATION: N/A |
| NOTES: | | |


| Well Construction | Depth | Lithology | USCS | Sample Interval | Sample Recovery | Blows/6 in | PID (ppm) | Description | Remarks |
|-------------------|-------|-----------|------|-----------------|-----------------|------------|-----------|--|--|
| | 0 | | FILL | | | | <1 | Dark gray (N3) coarse to fine SAND, little coarse to fine Gravel (15% fill material: brick and asphalt debris); moist. | Sand (Fill) |
| | 2 | | | | | | | | Compositesoil sample SB07 collected from 0 to 5.5; VOC collected from 5.0 to 5.5 ft bgs; groundwater sample SB07GW collected |
| | 4 | | | | | | | | |
| | 6 | | FILL | | | | <1 | Dark gray (N3) coarse to fine SAND, little coarse to fine Gravel (15% fill material: brick and asphalt debris); wet. | Water Level at 5.5 ft bgs |
| | 8 | | CL | | | | <1 | Dark greenish gray (5GY4/1) Silty CLAY, little peat; wet. | Silty Clay |
| | 10 | | | | | | | | End of Boring at 10 ft bgs |

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|---|--------------------------------------|-------------------------------|
| Louis Berger & Assoc., P.C. 48 Wall Street, 16th Floor New York, New York 10005 | <h1>Drilling Log</h1> Page 1 of 1 | BORING ID: SB08 |
| | | WELL ID: N/A |
| | | LOCATION: Brooklyn, NY |

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|---|--------------------------------|
| CLIENT: New York City Department of Design and Construction | PROJECT NO: SPC870H7 |
| PROJECT: Coney Island Area-Surf Ave Between W 8th Str and 10th Str | FMS ID#: CONISPH01 |
| DRILLING CONTRACTOR: Aquifer Drilling and Testing, Inc. | WOL #: 7691-LBA-3-7365 |
| DRILLING METHOD: Geoprobe Direct Push | DATE STARTED: 9/20/2011 |

| BOREHOLE DATA | | WELL DATA | | DATE FINISHED: 9/20/2011 | |
|-----------------------------------|--|---------------------------------|--|------------------------------------|--|
| Diameter (in): 2 | | Well Diameter: N/A | | DRILLER: C. Iodice | |
| Total Depth (ft): 10.00 | | Total Depth (ft): N/A | | LBA INSPECTOR: J. Lacanlale | |
| Depth to Refusal (ft): N/A | | Screen Length (ft): N/A | | NORTHING: N/A | |
| Depth to Water (ft): 5.5 | | Depth to Water (ft): N/A | | EASTING: N/A | |
| Depth to Rock (ft): N/A | | Slot Size: N/A | | SURFACE ELEVATION: N/A | |

NOTES:

| Well Construction | Depth | Lithology | USCS | Sample Interval | Sample Recovery | Blows/6 in | PID (ppm) | Description | Remarks |
|-------------------|-------|-----------|----------|-----------------|-----------------|------------|-----------|--|--|
| | 0 | | SP | | | | <1 | Dusky yellowish brown (10YR2/2) medium to fine SAND, trace Silt, trace fine Gravel; moist. | Sand |
| | 2 | | | | | | | | Composite soil sample SB08 collected from 0 to 5.5 ft bgs; VOC collected from 5.0 to 5.5 ft bgs Water Level at 5.5 ft bgs |
| | 4 | | | | | | | | |
| | 6 | | SP SP | | | | <1 <1 | Dusky yellowish brown (10YR2/2) medium to fine SAND, trace Silt; moist. Light gray (N7) medium to fine SAND, trace Silt; wet. |  Water Level at 5.5 ft bgs |
| | 8 | | | | | | | | End of Boring at 10 ft bgs |
| | 10 | | | | | | | | |

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| Louis Berger & Assoc., P.C. 48 Wall Street, 16th Floor New York, New York 10005 | <h1>Drilling Log</h1> Page 1 of 2 | BORING ID: SB09 |
| | | WELL ID: N/A |
| | | LOCATION: Brooklyn, NY |
| CLIENT: New York City Department of Design and Construction | | PROJECT NO: SPC870H7 |
| PROJECT: Coney Island Area-Surf Ave Between W 8th Str and 10th Str | | FMS ID#: CONISPH01 |
| DRILLING CONTRACTOR: Aquifer Drilling and Testing, Inc. | | WOL #: 7691-LBA-3-7365 |
| DRILLING METHOD: Geoprobe Direct Push | | DATE STARTED: 9/19/2011 |
| BOREHOLE DATA | | WELL DATA |
| Diameter (in): 2 | Well Diameter: N/A | DRILLER: C. Iodice |
| Total Depth (ft): 10.00 | Total Depth (ft): N/A | LBA INSPECTOR: J. Lacanlale |
| Depth to Refusal (ft): N/A | Screen Length (ft): N/A | NORTHING: N/A |
| Depth to Water (ft): 5.5 | Depth to Water (ft): N/A | EASTING: N/A |
| Depth to Rock (ft): N/A | Slot Size: N/A | SURFACE ELEVATION: N/A |
| NOTES: | | |

| Well Construction | Depth | Lithology | USCS | Sample Interval | Sample Recovery | Blows/6 in | PID (ppm) | Description | Remarks |
|-------------------|-------|-----------|------|-----------------|-----------------|------------|-----------|--|---------------------------|
| | 0 | | FILL | | | | <1 | Moderate yellowish brown (10YR5/4) medium to fine SAND, trace Silt, little fine Gravel; moist. | Sand (Fill) |
| | 2 | | | | | | | | |
| | 4 | | FILL | | | | <1 | Moderate yellowish brown (10YR5/4) medium to fine SAND, trace Silt, little fine Gravel; moist. | Water Level at 5.5 ft bgs |
| | | | SP | | | | <1 | Light gray (N7) medium to fine SAND, trace Silt; wet. | Sand; collected |

A5-126

| | | | |
|---|--|------------------|------------------------------------|
| Louis Berger & Assoc., P.C. 48 Wall Street, 16th Floor New York, New York 10005 | <h1>Drilling Log</h1> Page 1 of 1 | | BORING ID: SB10 |
| | | | WELL ID: SB10GW |
| | | | LOCATION: Brooklyn, NY |
| CLIENT: New York City Department of Design and Construction | | | PROJECT NO: SPC870H7 |
| PROJECT: Coney Island Area-Surf Ave Between W 8th Str and 10th Str | | | FMS ID#: CONISPH01 |
| DRILLING CONTRACTOR: Aquifer Drilling and Testing, Inc. | | | WOL #: 7691-LBA-3-7365 |
| DRILLING METHOD: Geoprobe Direct Push | | | DATE STARTED: 9/22/2011 |
| BOREHOLE DATA | | WELL DATA | |
| Diameter (in): 2 | Well Diameter: Temporary Well Point | | DRILLER: C. Iodice |
| Total Depth (ft): 10.00 | Total Depth (ft): 10 | | LBA INSPECTOR: J. Lacanlale |
| Depth to Refusal (ft): N/A | Screen Length (ft): 10/0.010 | | NORTHING: N/A |
| Depth to Water (ft): 5.5 | Depth to Water (ft): 5.5 | | EASTING: N/A |
| Depth to Rock (ft): N/A | Slot Size: N/A | | SURFACE ELEVATION: N/A |
| NOTES: | | | |

| Well Construction | Depth | Lithology | USCS | Sample Interval | Sample Recovery | Blows/6 in | PID (ppm) | Description | Remarks |
|-------------------|-------|-----------|----------|-----------------|-----------------|------------|-----------|--|---|
| | 0 | | SP | | | | <1 | Moderate yellowish brown (10YR5/4) medium to fine SAND, trace Silt, trace fine Gravel; moist. | Sand |
| | 2 | | | | | | | | Composite soil sample SB10 collected from 0 to 5.5 ft bgs; VOC collected from 5.0 to 5.5 ft bgs; groundwater sample SB10GW collected Water Level at 5.5 ft bgs |
| | 4 | | | | | | | | |
| | 6 | | SP SP | | | | <1 <1 | Moderate yellowish brown (10YR5/4) medium to fine SAND, trace Silt, trace fine Gravel; moist. Light Gray (N7) medium to fine SAND, trace Silt; wet. | |
| | 8 | | | | | | | | |
| | 10 | | | | | | | | End of Boring at 10 ft bgs |

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| Louis Berger & Assoc., P.C. 48 Wall Street, 16th Floor New York, New York 10005 | <h1 style="margin: 0;">Drilling Log</h1> <p style="margin: 0;">Page 1 of 1</p> | BORING ID: SB11 |
| | | WELL ID: N/A |
| | | LOCATION: Brooklyn, NY |

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|---|--------------------------------|
| CLIENT: New York City Department of Design and Construction | PROJECT NO: SPC870H7 |
| PROJECT: Coney Island Area-Surf Ave Between W 8th Str and 10th Str | FMS ID#: CONISPH01 |
| DRILLING CONTRACTOR: Aquifer Drilling and Testing, Inc. | WOL #: 7691-LBA-3-7365 |
| DRILLING METHOD: Geoprobe Direct Push | DATE STARTED: 9/20/2011 |

| BOREHOLE DATA | | WELL DATA | |
|-----------------------------------|--|---------------------------------|--|
| Diameter (in): 2 | | Well Diameter: N/A | |
| Total Depth (ft): 10.00 | | Total Depth (ft): N/A | |
| Depth to Refusal (ft): N/A | | Screen Length (ft): N/A | |
| Depth to Water (ft): 6 | | Depth to Water (ft): N/A | |
| Depth to Rock (ft): N/A | | Slot Size: N/A | |

NOTES:

| Well Construction | Depth | Lithology | USCS | Sample Interval | Sample Recovery | Blows/6 in | PID (ppm) | Description | Remarks |
|-------------------|-------|-----------|------|-----------------|-----------------|------------|-----------|---|--|
| | 0 | | SP | | | | <1 | Pale yellowish brown (10YR6/2) medium to fine SAND, trace Silt, trace fine Gravel; moist. | Sand |
| | 2 | | | | | | | | |
| | 4 | | | | | | | | |
| | 6 | | SP | | | | <1 | Pale yellowish brown (10YR6/2) medium to fine SAND, trace Silt; moist. | Water Level at 6 ft bgs |
| | 6 | | SP | | | | <1 | Light gray (N7) medium to fine SAND, trace Silt; wet. | Compositesoil sample SB11 collected from 5.5 to 6.0 ft bgs |
| | 8 | | | | | | | | |
| | 10 | | | | | | | | End of Boring at 10 ft bgs |

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|---|-------|------------------------------------|-------------------------|--------------------------|--------------|
| Louis Berger & Assoc., P.C. 48 Wall Street, 16th Floor New York, New York 10005 | | Drilling Log Page 1 of 1 | | BORING ID: SB12 | |
| | | | | WELL ID: N/A | |
| | | | | LOCATION: Brooklyn, NY | |
| CLIENT: New York City Department of Design and Construction | | | PROJECT NO: SPC870H7 | | |
| PROJECT: Coney Island Area-Surf Ave Between W 8th Str and 10th Str | | | FMS ID#: CONISPH01 | | |
| DRILLING CONTRACTOR: Aquifer Drilling and Testing, Inc. | | | WOL #: 7691-LBA-3-7365 | | |
| DRILLING METHOD: Geoprobe Direct Push | | | DATE STARTED: 9/23/2011 | | |
| BOREHOLE DATA | | WELL DATA | | DATE FINISHED: 9/23/2011 | |
| Diameter (in): | 2 | Well Diameter: | N/A | DRILLER: | C. Iodice |
| Total Depth (ft): | 10.00 | Total Depth (ft): | N/A | LBA INSPECTOR: | R. Weissbard |
| Depth to Refusal (ft): | N/A | Screen Length (ft): | N/A | NORTHING: | N/A |
| Depth to Water (ft): | 5.5 | Depth to Water (ft): | N/A | EASTING: | N/A |
| Depth to Rock (ft): | N/A | Slot Size: | N/A | SURFACE ELEVATION: | N/A |
| NOTES: | | | | | |

| Well Construction | Depth | Lithology | USCS | Sample Interval | Sample Recovery | Blows/6 in | PID (ppm) | Description | Remarks |
|-------------------|-------|-----------|------|-----------------|-----------------|------------|-----------|---|---|
| | 0 | | SP | | | | <1 | Pale yellowish brown (10YR6/2) medium to fine SAND, trace Silt, trace fine Gravel; moist. | Sand |
| | 2 | | | | | | | | Composite soil sample SB12 collected from 0 to 5.5 ft bgs; VOC collected from 5.0 to 5.5 ft bgs |
| | 4 | | | | | | | | |
| | 6 | | SP | | | | <1 | Pale yellowish brown (10YR6/2) medium to fine SAND, trace Silt; wet. | Water Level at 5.5 ft bgs |
| | 8 | | | | | | | | |
| | 10 | | | | | | | | End of Boring at 10 ft bgs |

| | | |
|---|--|------------------------------------|
| Louis Berger & Assoc., P.C. 48 Wall Street, 16th Floor New York, New York 10005 | Drilling Log Page 1 of 1 | BORING ID: SB13 |
| | | WELL ID: SB13GW |
| | | LOCATION: Brooklyn, NY |
| CLIENT: New York City Department of Design and Construction | | PROJECT NO: SPC870H7 |
| PROJECT: Coney Island Area-Surf Ave Between W 8th Str and 10th Str | | FMS ID#: CONISPH01 |
| DRILLING CONTRACTOR: Aquifer Drilling and Testing, Inc. | | WOL #: 7691-LBA-3-7365 |
| DRILLING METHOD: Geoprobe Direct Push | | DATE STARTED: 9/22/2011 |
| BOREHOLE DATA | | DATE FINISHED: 9/22/2011 |
| Diameter (in): 2 | Well Diameter: Temporary Well Point | DRILLER: C. Iodice |
| Total Depth (ft): 10.00 | Total Depth (ft): 10 | LBA INSPECTOR: J. Lacanlale |
| Depth to Refusal (ft): N/A | Screen Length (ft): 10/0.010 | NORTHING: N/A |
| Depth to Water (ft): 5.5 | Depth to Water (ft): 10 | EASTING: N/A |
| Depth to Rock (ft): N/A | Slot Size: N/A | SURFACE ELEVATION: N/A |
| NOTES: | | |

| Well Construction | Depth | Lithology | USCS | Sample Interval | Sample Recovery | Blows/6 in | PID (ppm) | Description | Remarks |
|-------------------|-------|-----------|---------------|-----------------|-----------------|------------|-----------|--|---|
| | 0 | | SP | | | | <1 | Moderate yellowish brown (10YR5/4) coarse to fine SAND, little Silt, little medium to fine Gravel; moist. | Sand |
| | 2 | | | | | | | | Compositesoil sample SB13 collected from 0 to 5.5 ft bgs; VOC collected from 5.0 to 5.5 ft bgs; groundwater sample SB13GW collected |
| | 4 | | | | | | | | |
| | 6 | | SP ▼ SP | | | | <1 <1 | Moderate yellowish brown (10YR5/4) medium to fine SAND, trace Silt, trace fine Gravel; moist. Light gray (N7) medium to fine SAND, trace Silt; wet. | Water Level at 5.5 ft bgs |
| | 8 | | | | | | | | End of Boring at 10 ft bgs |
| | 10 | | | | | | | | |

Louis Berger & Assoc., P.C.
 48 Wall Street, 16th Floor
 New York, New York 10005

Drilling Log

Page 1 of 1

BORING ID: SB14
WELL ID: N/A
LOCATION: Brooklyn, NY

CLIENT: New York City Department of Design and Construction

PROJECT NO: SPC870H7

PROJECT: Coney Island Area-Surf Ave Between W 8th Str and 10th Str

FMS ID#: CONISPH01

DRILLING CONTRACTOR: Aquifer Drilling and Testing, Inc.

WOL #: 7691-LBA-3-7365

DRILLING METHOD: Geoprobe Direct Push

DATE STARTED: 9/23/2011

BOREHOLE DATA

WELL DATA

DATE FINISHED: 9/23/2011

Diameter (in): 2

Well Diameter: N/A

DRILLER: C. Iodice

Total Depth (ft): 10.00

Total Depth (ft): N/A

LBA INSPECTOR: R. Weissbard

Depth to Refusal (ft): N/A

Screen Length (ft): N/A

NORTHING: N/A

Depth to Water (ft): 5.5

Depth to Water (ft): N/A

EASTING: N/A

Depth to Rock (ft): N/A

Slot Size: N/A

SURFACE ELEVATION: N/A

NOTES:

| Well Construction | Depth | Lithology | USCS | Sample Interval | Sample Recovery | Blows/6 in | PID (ppm) | Description | Remarks |
|-------------------|-------|-----------|------|-----------------|-----------------|------------|-----------|---|---|
| | 0 | | SP | | | | <1 | Moderate yellowish brown (10YR5/4) medium to fine SAND, trace Silt, trace fine Gravel; moist. | Sand |
| | 2 | | | | | | | | Composite soil sample SB14 collected from 0 to 5.5 ft bgs; VOC collected from 5.0 to 5.5 ft bgs |
| | 4 | | | | | | | | |
| | 6 | | SP | | | | <1 | Moderate yellowish brown (10YR5/4) medium to fine SAND, trace Silt; wet. | Water Level at 5.5 ft bgs |
| | 8 | | | | | | | | |
| | 10 | | | | | | | | End of Boring at 10 ft bgs |

| | | |
|---|--------------------------------------|------------------------------------|
| Louis Berger & Assoc., P.C. 48 Wall Street, 16th Floor New York, New York 10005 | Drilling Log Page 1 of 1 | BORING ID: SB15 |
| | | WELL ID: SB15GW |
| | | LOCATION: Brooklyn, NY |
| CLIENT: New York City Department of Design and Construction | | PROJECT NO: SPC870H7 |
| PROJECT: Coney Island Area-Surf Ave Between W 8th Str and 10th Str | | FMS ID#: CONISPH01 |
| DRILLING CONTRACTOR: Aquifer Drilling and Testing, Inc. | | WOL #: 7691-LBA-3-7365 |
| DRILLING METHOD: Geoprobe Direct Push | | DATE STARTED: 9/22/2011 |
| BOREHOLE DATA | | DATE FINISHED: 9/22/2011 |
| Diameter (in): 2 | Well Diameter: Temporary Well | DRILLER: C. Iodice |
| Total Depth (ft): 10.00 | Total Depth (ft): 10 | LBA INSPECTOR: J. Lacanlale |
| Depth to Refusal (ft): N/A | Screen Length (ft): 10/0.010 | NORTHING: N/A |
| Depth to Water (ft): 5 | Depth to Water (ft): 5 | EASTING: N/A |
| Depth to Rock (ft): N/A | Slot Size: N/A | SURFACE ELEVATION: N/A |
| NOTES: | | |

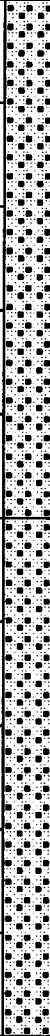



| Well Construction | Depth | Lithology | USCS | Sample Interval | Sample Recovery | Blows/6 in | PID (ppm) | Description | Remarks |
|-------------------|-------|-----------|------|-----------------|-----------------|------------|-----------|---|--|
| | 0 | | SP | | | | <1 | Moderate yellowish brown (10YR5/4) medium to fine SAND, trace Silt, trace fine Gravel; moist. | Sand |
| | 2 | | SP | | | | 63.5 | Medium dark gray (N4) medium to fine SAND, trace Silt; moist. | Composite soil sample SB15 collected from 0 to 5.0 ft bgs; VOC collected from 2.5 to 3.0 ft bgs; groundwater sample SB15GW collected |
| | 5 | | SM | | | | 30 | Medium dark gray (N4) medium to fine SAND, some Silt, little peat; wet. | Silty Sand Water Level at 5 ft bgs |
| | 6 | | SP | | | | <1 | Light gray (N7) medium to fine SAND, trace Silt; wet. | Sand |
| | 8 | | | | | | | | |
| | 10 | | | | | | | | End of Boring at 10 ft bgs |

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|--|--|------------------------------------|--------------------------------|
| Louis Berger & Assoc., P.C. 48 Wall Street, 16th Floor New York, New York 10005 | <h1 style="margin: 0;">Drilling Log</h1> <p style="margin: 0;">Page 1 of 1</p> | | BORING ID: SB16 |
| | | | WELL ID: N/A |
| | | | LOCATION: Brooklyn, NY |
| CLIENT: New York City Department of Design and Construction | | | PROJECT NO: SPC870H7 |
| PROJECT: Coney Island Area-Surf Ave Between W 8th Str and 10th Str | | | FMS ID#: CONISPH01 |
| DRILLING CONTRACTOR: Aquifer Drilling and Testing, Inc. | | | WOL #: 7691-LBA-3-7365 |
| DRILLING METHOD: Geoprobe Direct Push | | | DATE STARTED: 9/23/2011 |
| BOREHOLE DATA | | WELL DATA | |
| Diameter (in): 2 | Well Diameter: N/A | DRILLER: C. Iodice | |
| Total Depth (ft): 10.00 | Total Depth (ft): N/A | LBA INSPECTOR: R. Weissbard | |
| Depth to Refusal (ft): N/A | Screen Length (ft): N/A | NORTHING: N/A | |
| Depth to Water (ft): 5.5 | Depth to Water (ft): N/A | EASTING: N/A | |
| Depth to Rock (ft): N/A | Slot Size: N/A | SURFACE ELEVATION: N/A | |
| NOTES: | | | |

| Well Construction | Depth | Lithology | USCS | Sample Interval | Sample Recovery | Blows/6 in | PID (ppm) | Description | Remarks |
|-------------------|-------|-----------|------|-----------------|-----------------|------------|-----------|--|---|
| | 0 | | SP | | | | <1 | Dusky yellowish brown (10YR2/2) medium to fine SAND, trace Silt, trace fine Gravel; moist. | Sand |
| | 2 | | | | | | | | Composite soil sample SB16 collected from 0 to 5.5 ft bgs; VOC collected from 5.0 to 5.5 ft bgs |
| | 4 | | | | | | | | |
| | 6 | | SP | | | | <1 | Medium gray (N5) medium to fine SAND, trace Silt; wet. | Water Level at 5.5 ft bgs |
| | 8 | | | | | | | | |
| | 10 | | | | | | | | End of Boring at 10 ft bgs |

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| | | |
|---|--------------------------------------|------------------------------------|
| Louis Berger & Assoc., P.C. 48 Wall Street, 16th Floor New York, New York 10005 | <h1>Drilling Log</h1> Page 1 of 1 | BORING ID: SB17 |
| | | WELL ID: N/A |
| | | LOCATION: Brooklyn, NY |
| CLIENT: New York City Department of Design and Construction | | PROJECT NO: SPC870H7 |
| PROJECT: Coney Island Area-Surf Ave Between W 8th Str and 10th Str | | FMS ID#: CONISPH01 |
| DRILLING CONTRACTOR: Aquifer Drilling and Testing, Inc. | | WOL #: 7691-LBA-3-7365 |
| DRILLING METHOD: Geoprobe Direct Push | | DATE STARTED: 9/23/2011 |
| BOREHOLE DATA | | WELL DATA |
| Diameter (in): 2 | Well Diameter: N/A | DRILLER: C. Iodice |
| Total Depth (ft): 10.00 | Total Depth (ft): N/A | LBA INSPECTOR: R. Weissbard |
| Depth to Refusal (ft): N/A | Screen Length (ft): N/A | NORTHING: N/A |
| Depth to Water (ft): 5.5 | Depth to Water (ft): N/A | EASTING: N/A |
| Depth to Rock (ft): N/A | Slot Size: N/A | SURFACE ELEVATION: N/A |
| NOTES: | | |

| Well Construction | Depth | Lithology | USCS | Sample Interval | Sample Recovery | Blows/6 in | PID (ppm) | Description | Remarks |
|-------------------|-------|--|------|--|--|------------|-----------|--|---|
| | 0 |  | SP |  |  | | <1 | Moderate brown (5YR4/4) medium to fine SAND, trace Silt, trace fine Gravel; moist. | Sand |
| | 2 | | | | | | | | |
| | 4 | | | | | | | | |
| | 6 | | | | | | | | |
| | 8 | | | | | | | | |
| | 10 | | | | | | | | |
| | | | SP | | | | <1 | Moderate brown (5YR4/4) medium to fine SAND, trace Silt; wet. | <div style="text-align: center;">  Water Level at 5.5 ft bgs </div> |
| | | | | | | | | | End of Boring at 10 ft bgs |

| | | |
|--|--------------------------------------|-------------------------------|
| Louis Berger & Assoc., P.C. 48 Wall Street, 16th Floor New York, New York 10005 | <h1>Drilling Log</h1> Page 1 of 1 | BORING ID: SB18 |
| | | WELL ID: N/A |
| | | LOCATION: Brooklyn, NY |

| | | |
|---|---------------------------------|------------------------------------|
| CLIENT: New York City Department of Design and Construction | | PROJECT NO: SPC870H7 |
| PROJECT: Coney Island Area-Surf Ave Between W 8th Str and 10th Str | | FMS ID#: CONISPH01 |
| DRILLING CONTRACTOR: Aquifer Drilling and Testing, Inc. | | WOL #: 7691-LBA-3-7365 |
| DRILLING METHOD: Geoprobe Direct Push | | DATE STARTED: 9/23/2011 |
| BOREHOLE DATA | | WELL DATA |
| Diameter (in): 2 | Well Diameter: N/A | DRILLER: C. Iodice |
| Total Depth (ft): 10.00 | Total Depth (ft): N/A | LBA INSPECTOR: R. Weissbard |
| Depth to Refusal (ft): N/A | Screen Length (ft): N/A | NORTHING: N/A |
| Depth to Water (ft): 5.5 | Depth to Water (ft): N/A | EASTING: N/A |
| Depth to Rock (ft): N/A | Slot Size: N/A | SURFACE ELEVATION: N/A |

NOTES:

| Well Construction | Depth | Lithology | USCS | Sample Interval | Sample Recovery | Blows/6 in | PID (ppm) | Description | Remarks |
|-------------------|-------|-----------|------|-----------------|-----------------|------------|-----------|---|---|
| | 0 | | SP | | | | <1 | Moderate yellowish brown (10YR5/4) medium to fine SAND, trace Silt, trace fine Gravel; moist. | Sand |
| | 2 | | | | | | | | Composite soil sample SB18 collected from 0 to 5.5 ft bgs; VOC collected from 5.0 to 5.5 ft bgs |
| | 4 | | | | | | | | |
| | 6 | | SP | | | | <1 | Moderate yellowish brown (10YR5/4) medium to fine SAND, trace Silt; wet. | Σ Water Level at 5.5 ft bgs |
| | 8 | | | | | | | | End of Boring at 10 ft bgs |
| | 10 | | | | | | | | |

| | | |
|---|------------------------------------|------------------------------------|
| Louis Berger & Assoc., P.C. 48 Wall Street, 16th Floor New York, New York 10005 | Drilling Log Page 1 of 1 | BORING ID: SB19 |
| | | WELL ID: N/A |
| CLIENT: New York City Department of Design and Construction | | LOCATION: Brooklyn, NY |
| | | PROJECT NO: SPC870H7 |
| PROJECT: Coney Island Area-Surf Ave Between W 8th Str and 10th Str | | FMS ID#: CONISPH01 |
| DRILLING CONTRACTOR: Aquifer Drilling and Testing, Inc. | | WOL #: 7691-LBA-3-7365 |
| DRILLING METHOD: Geoprobe Direct Push | | DATE STARTED: 9/23/2011 |
| BOREHOLE DATA | | DATE FINISHED: 9/23/2011 |
| Diameter (in): 2 | Well Diameter: N/A | DRILLER: C. Iodice |
| Total Depth (ft): 10.00 | Total Depth (ft): N/A | LBA INSPECTOR: R. Weissbard |
| Depth to Refusal (ft): N/A | Screen Length (ft): N/A | NORTHING: N/A |
| Depth to Water (ft): 5.5 | Depth to Water (ft): N/A | EASTING: N/A |
| Depth to Rock (ft): N/A | Slot Size: N/A | SURFACE ELEVATION: N/A |
| NOTES: | | |

| Well Construction | Depth | Lithology | USCS | Sample Interval | Sample Recovery | Blows/6 in | PID (ppm) | Description | Remarks |
|-------------------|-------|-----------|------|-----------------|-----------------|------------|-----------|---|---|
| | 0 | | SP | | | | <1 | Dark yellowish brown (10YR4/2) coarse to fine SAND, trace Silt, trace fine Gravel; moist. | Sand |
| | 2 | | | | | | | | Collected composite soil sample SB19 from 0 to 5.5 ft bgs; VOC collected from 5.0 to 5.5 ft bgs |
| | 4 | | | | | | | | |
| | 6 | | SP | | | | <1 | Dark yellowish brown (10YR4/2) medium to fine SAND, trace Silt, trace fine Gravel; wet. | Water Level at 5.5 ft bgs |
| | 8 | | | | | | | | |
| | 10 | | | | | | | | End of Boring at 10 ft bgs |

| | | |
|--|--------------------------------------|-------------------------------|
| Louis Berger & Assoc., P.C. 48 Wall Street, 16th Floor New York, New York 10005 | <h1>Drilling Log</h1> Page 1 of 1 | BORING ID: SB20 |
| | | WELL ID: SB20GW |
| | | LOCATION: Brooklyn, NY |

| | |
|---|--------------------------------|
| CLIENT: New York City Department of Design and Construction | PROJECT NO: SPC870H7 |
| PROJECT: Coney Island Area-Surf Ave Between W 8th Str and 10th Str | FMS ID#: CONISPH01 |
| DRILLING CONTRACTOR: Aquifer Drilling and Testing, Inc. | WOL #: 7691-LBA-3-7365 |
| DRILLING METHOD: Geoprobe Direct Push | DATE STARTED: 9/22/2011 |

| BOREHOLE DATA | | WELL DATA | | DATE FINISHED: 9/22/2011 | |
|-----------------------------------|--|--------------------------------------|-----------------------------------|--------------------------|--|
| Diameter (in): 2 | | Well Diameter: Temporary Well | DRILLER: C. Iodice | | |
| Total Depth (ft): 10.00 | | Total Depth (ft): 10 | LBA INSPECTOR: J. Lacadale | | |
| Depth to Refusal (ft): N/A | | Screen Length (ft): 10/0.010 | NORTHING: N/A | | |
| Depth to Water (ft): 5.5 | | Depth to Water (ft): 5.5 | EASTING: N/A | | |
| Depth to Rock (ft): N/A | | Slot Size: N/A | SURFACE ELEVATION: N/A | | |

NOTES:

| Well Construction | Depth | Lithology | USCS | Sample Interval | Sample Recovery | Blows/6 in | PID (ppm) | Description | Remarks |
|-------------------|-------|-----------|------|-----------------|-----------------|------------|-----------|---|---|
| | 0 | | SP | | | | <1 | Pale yellowish brown (10YR6/2) medium to fine SAND, trace Silt, trace fine Gravel; moist. | Sand Composite soil sample SB20 collected from 0 to 5.5 ft bgs; VOC collected from 5.0 to 5.5 ft bgs; groundwater samples SB20GW collected |
| | 6 | | CL | | | | <1 | Dark greenish gray (5GY4/1) Silty CLAY. Little medium to fine SAND, little peat; wet. | Silty Clay Water Level at 5.5 ft bgs |
| | 8 | | SP | | | | <1 | Light gray (N7) medium to fine SAND, trace Silt; wet. | Sand End of Boring at 10 ft bgs |
| | 10 | | | | | | | | |

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48 Wall Street, 16th Floor
New York, New York 10005

Drilling Log

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BORING ID: SB21
WELL ID: N/A
LOCATION: Brooklyn, NY

CLIENT: New York City Department of Design and Construction
PROJECT NO: SPC870H7
PROJECT: Coney Island Area-Surf Ave Between W 8th Str and 10th Str
FMS ID#: CONISPH01
DRILLING CONTRACTOR: Aquifer Drilling and Testing, Inc.
WOL #: 7691-LBA-3-7365

DRILLING METHOD: Geoprobe Direct Push
DATE STARTED: 9/23/2011
DATE FINISHED: 9/23/2011

DRILLER: C. Iodice
LBA INSPECTOR: R. Weissbard
NORTHING: N/A
EASTING: N/A
SURFACE ELEVATION: N/A

BOREHOLE DATA
Diameter (in): 2
Total Depth (ft): 10.00
Depth to Refusal (ft): N/A
Depth to Water (ft): 5.5
Depth to Rock (ft): N/A

WELL DATA
Well Diameter: N/A
Total Depth (ft): N/A
Screen Length (ft): N/A
Depth to Water (ft): N/A
Slot Size: N/A

NOTES:

| Well Construction | Depth | Lithology | USCS | Sample Interval | Sample Recovery | Blows/6 in | PID (ppm) | Description | Remarks |
|-------------------|-------|-----------|------|-----------------|-----------------|------------|-----------|--|---|
| | 0 | | FILL | | | | <1 | Medium dark gray (N4) coarse to fine SAND, trace Silt; moist. | Sand (Fill) |
| | 2 | | FILL | | | | <1 | Brownish gray (5YR4/1) coarse to fine SAND, trace Silt, little coarse to fine Gravel (15% fill material: brick debris); moist. | Collected composite soil sample SB21 from 0 to 5.5 ft bgs; VOC collected from 5.0 to 5.5 ft bgs |
| | 4 | | FILL | | | | <1 | Brownish gray (5YR4/1) coarse to fine SAND, trace Silt, little coarse to fine Gravel (15% fill material: brick debris); moist. | |
| | 6 | | SP | | | | <1 | Dark yellowish brown (10YR4/2) coarse to fine SAND, trace Silt; wet. | Sand Water Level at 5.5 ft bgs |
| | 10 | | | | | | | | End of Boring at 10 ft bgs |

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 48 Wall Street, 16th Floor
 New York, New York 10005

Drilling Log

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BORING ID: SB22
WELL ID: N/A
LOCATION: Brooklyn, NY

CLIENT: New York City Department of Design and Construction

PROJECT NO: SPC870H7

PROJECT: Coney Island Area-Surf Ave Between W 8th Str and 10th Str

FMS ID#: CONISPH01

DRILLING CONTRACTOR: Aquifer Drilling and Testing, Inc.

WOL #: 7691-LBA-3-7365

DRILLING METHOD: Geoprobe Direct Push

DATE STARTED: 9/20/2011

BOREHOLE DATA

WELL DATA

DATE FINISHED: 9/20/2011

Diameter (in): 2

Well Diameter: N/A

DRILLER: C. Iodice

Total Depth (ft): 10.00

Total Depth (ft): N/A

LBA INSPECTOR: J. Lacanlale

Depth to Refusal (ft): N/A

Screen Length (ft): N/A

NORTHING: N/A

Depth to Water (ft): 5.5

Depth to Water (ft): N/A


EASTING: N/A

Depth to Rock (ft): N/A

Slot Size: N/A

SURFACE ELEVATION: N/A

NOTES:

| Well Construction | Depth | Lithology | USCS | Sample Interval | Sample Recovery | Blows/6 in | PID (ppm) | Description | Remarks |
|-------------------|-------|-----------|------|-----------------|-----------------|------------|-----------|---|--|
| | 0 | | SP | | | | <1 | Moderate yellowish brown (10YR5/4) medium to fine SAND, little Silt, little coarse to fine Gravel; moist. | Sand |
| | 2 | | | | | | | | |
| | 4 | | | | | | | | |
| | 6 | | SP | | | | 1379 | Medium dark gray (N4) medium to fine SAND, trace Silt; wet. | Staining and odors from 5.0 to 5.5 ft bgs; composite soil sample SB22 collected from 0 to 5.5 ft bgs; VOC collected from 5.0 to 5.5 ft bgs  Water Level at 5.5 ft bgs |
| | 8 | | | | | | | | |
| | 10 | | | | | | | | End of Boring at 10 ft bgs |

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New York, New York 10005

Drilling Log

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BORING ID: SB23
WELL ID: N/A
LOCATION: Brooklyn, NY

CLIENT: New York City Department of Design and Construction
PROJECT: Coney Island Area-Surf Ave Between W 8th Str and 10th Str
DRILLING CONTRACTOR: Aquifer Drilling and Testing, Inc.
DRILLING METHOD: Geoprobe Direct Push

PROJECT NO: SPC870H7
FMS ID#: CONISPH01
WOL #: 7691-LBA-3-7365
DATE STARTED: 9/20/2011

| BOREHOLE DATA | | WELL DATA | |
|-------------------------------|-------|-----------------------------|-----|
| Diameter (in): | 2 | Well Diameter: | N/A |
| Total Depth (ft): | 10.00 | Total Depth (ft): | N/A |
| Depth to Refusal (ft): | N/A | Screen Length (ft): | N/A |
| Depth to Water (ft): | 5.5 | Depth to Water (ft): | N/A |
| Depth to Rock (ft): | N/A | Slot Size: | N/A |

DATE FINISHED: 9/20/2011
DRILLER: C. Iodice
LBA INSPECTOR: J. Lacanlale
NORTHING: N/A
EASTING: N/A
SURFACE ELEVATION: N/A

NOTES:

| Well Construction | Depth | Lithology | USCS | Sample Interval | Sample Recovery | Blows/6 in | PID (ppm) | Description | Remarks |
|-------------------|-------|-----------|------|-----------------|-----------------|------------|-----------|---|--|
| | 0 | | SP | | | | <1 | Dusky yellowish brown (10YR4/2) medium to fine SAND, trace Silt, little medium to fine Gravel; moist. | Sand Water Level at 5.5 ft bgs Composite soil sample SB23 collected from 0 to 5.5 ft bgs; VOC collected from 5.0 to 5.5 ft bgs End of Boring at 10 ft bgs |
| | 2 | | | | | | | | |
| | 4 | | | | | | | | |
| | 6 | | SP | | | | <1 | Dusky yellowish brown (10YR4/2) medium to fine SAND, trace Silt; moist. | |
| | 8 | | SP | | | | <1 | Light gray (N7) medium to fine SAND, trace Silt; wet. | |
| | 10 | | | | | | | | |

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|--|--|--|--|---|
| Louis Berger & Assoc., P.C. 48 Wall Street, 16th Floor New York, New York 10005 | | <h1 style="margin: 0;">Drilling Log</h1> <p style="margin: 0;">Page 1 of 1</p> | | BORING ID: SB24 WELL ID: SB24GW LOCATION: Brooklyn, NY |
| CLIENT: New York City Department of Design and Construction | | PROJECT NO: SPC870H7 | | |
| PROJECT: Coney Island Area-Surf Ave Between W 8th Str and 10th Str | | FMS ID#: CONISPH01 | | |
| DRILLING CONTRACTOR: Aquifer Drilling and Testing, Inc. | | WOL #: 7691-LBA-3-7365 | | |
| DRILLING METHOD: Geoprobe Direct Push | | DATE STARTED: 9/22/2011 | | |
| BOREHOLE DATA | | WELL DATA | | |
| Diameter (in): 2 | Well Diameter: Temporary Well Point | DRILLER: C. Iodice | | |
| Total Depth (ft): 10.00 | Total Depth (ft): 10 | LBA INSPECTOR: J. Lacanlale | | |
| Depth to Refusal (ft): N/A | Screen Length (ft): 10/0.010 | NORTHING: N/A | | |
| Depth to Water (ft): 5.5 | Depth to Water (ft): 5.5 | EASTING: N/A | | |
| Depth to Rock (ft): N/A | Slot Size: N/A | SURFACE ELEVATION: N/A | | |
| NOTES: | | | | |

| Well Construction | Depth | Lithology | USCS | Sample Interval | Sample Recovery | Blows/6 in | PID (ppm) | Description | Remarks |
|-------------------|-------|-----------|---------------|-----------------|-----------------|------------|-----------|--|---|
| | 0 | | SP | | | | <1 | Dark yellowish brown (10YR4/2) coarse to fine SAND, little Silt, little medium to fine Gravel; moist. | Sand |
| | 2 | | | | | | | | Composite soil sample SB24 collected from 0 to 5.5 ft bgs; VOC collected from 5.0 to 5.5 ft bgs; groundwater sample SB24GW collected Water Level at 5.5 ft bgs |
| | 4 | | | | | | | | |
| | 6 | | SP ▼ SP | | | | <1 <1 | Dark yellowish brown (10YR4/2) medium to fine SAND, trace Silt, trace fine Gravel; moist. Light gray (N7) medium to fine SAND, trace Silt; wet. | |
| | 8 | | | | | | | | End of Boring at 10 ft bgs |
| | 10 | | | | | | | | |

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Louis Berger & Assoc., P.C.
48 Wall Street, 16th Floor
New York, New York 10005

Drilling Log

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BORING ID: SB25
WELL ID: N/A
LOCATION: Brooklyn, NY

CLIENT: New York City Department of Design and Construction
PROJECT: Coney Island Area-Surf Ave Between W 8th Str and 10th Str
DRILLING CONTRACTOR: Aquifer Drilling and Testing, Inc.
DRILLING METHOD: Geoprobe Direct Push

PROJECT NO: SPC870H7
FMS ID#: CONISPH01
WOL #: 7691-LBA-3-7365
DATE STARTED: 9/20/2011
DATE FINISHED: 9/20/2011

| BOREHOLE DATA | | WELL DATA | |
|------------------------|-------|----------------------|-----|
| Diameter (in): | 2 | Well Diameter: | N/A |
| Total Depth (ft): | 10.00 | Total Depth (ft): | N/A |
| Depth to Refusal (ft): | N/A | Screen Length (ft): | N/A |
| Depth to Water (ft): | 5.5 | Depth to Water (ft): | N/A |
| Depth to Rock (ft): | N/A | Slot Size: | N/A |

DRILLER: C. Iodice
LBA INSPECTOR: J. Lacanlale
NORTHING: N/A
EASTING: N/A
SURFACE ELEVATION: N/A

NOTES:

| Well Construction | Depth | Lithology | USCS | Sample Interval | Sample Recovery | Blows/6 in | PID (ppm) | Description | Remarks |
|-------------------|-------|-----------|------|-----------------|-----------------|------------|-----------|--|--|
| | 0 | | SP | | | | <1 | Moderate yellowish brown (10YR5/4) to light gray (N7) medium to fine SAND, trace Silt, trace fine Gravel; moist. | Sand |
| | 2 | | | | | | | | Composite soil sample collected from 0 to 5.5 ft bgs; VOC collected from 5.0 to 5.5 ft bgs |
| | 4 | | | | | | | | |
| | 6 | | SP | | | | <1 | Light gray (N7) medium to fine SAND, trace Silt; wet. | Water Level at 5.5 ft bgs |
| | 8 | | | | | | | | |
| | 10 | | | | | | | | End of Boring at 10 ft bgs |

Louis Berger & Assoc., P.C.
 48 Wall Street, 16th Floor
 New York, New York 10005

Drilling Log

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BORING ID: SB26
WELL ID: N/A
LOCATION: Brooklyn, NY

| | |
|---|------------------------------------|
| CLIENT: New York City Department of Design and Construction | PROJECT NO: SPC870H7 |
| PROJECT: Coney Island Area-Surf Ave Between W 8th Str and 10th Str | FMS ID#: CONISPH01 |
| DRILLING CONTRACTOR: Aquifer Drilling and Testing, Inc. | WOL #: 7691-LBA-3-7365 |
| DRILLING METHOD: Geoprobe Direct Push | DATE STARTED: 9/20/2011 |
| BOREHOLE DATA | WELL DATA |
| Diameter (in): 2 | Well Diameter: N/A |
| Total Depth (ft): 10.00 | Total Depth (ft): N/A |
| Depth to Refusal (ft): N/A | Screen Length (ft): N/A |
| Depth to Water (ft): 5.5 | Depth to Water (ft): N/A |
| Depth to Rock (ft): N/A | Slot Size: N/A |
| | DATE FINISHED: 9/20/2011 |
| | DRILLER: C. Iodice |
| | LBA INSPECTOR: J. Lacanlale |
| | NORTHING: N/A |
| | EASTING: N/A |
| | SURFACE ELEVATION: N/A |

NOTES:

| Well Construction | Depth | Lithology | USCS | Sample Interval | Sample Recovery | Blows/6 in | PID (ppm) | Description | Remarks |
|-------------------|-------|-----------|------|-----------------|-----------------|------------|-----------|--|---|
| | 0 | | SP | | | | <1 | Dark yellowish brown (10YR4/2) medium to fine SAND, trace Silt, little medium to fine Gravel; moist. | Sand |
| | 2 | | | | | | | | |
| | 4 | | | | | | | | Composite soil sample SB26 collected from 0 to 5.5 ft bgs; VOC collected from 5.0 to 5.5 ft bgs |
| | 6 | | SP | | | | <1 | Light gray (N7) medium to fine SAND, trace Silt; wet. | Water Level at 5.5 ft bgs |
| | 8 | | | | | | | | |
| | 10 | | | | | | | | End of Boring at 10 ft bgs |

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Louis Berger & Assoc., P.C.
 48 Wall Street, 16th Floor
 New York, New York 10005

Drilling Log

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BORING ID: SB27
WELL ID: N/A
LOCATION: Brooklyn, NY

CLIENT: New York City Department of Design and Construction
PROJECT: Coney Island Area-Surf Ave Between W 8th Str and 10th Str
DRILLING CONTRACTOR: Aquifer Drilling and Testing, Inc.
DRILLING METHOD: Geoprobe Direct Push

PROJECT NO: SPC870H7
FMS ID#: CONISPH01
WOL #: 7691-LBA-3-7365
DATE STARTED: 9/20/2011
DATE FINISHED: 9/20/2011

| BOREHOLE DATA | | WELL DATA | |
|------------------------|-------|----------------------|-----|
| Diameter (in): | 2 | Well Diameter: | N/A |
| Total Depth (ft): | 10.00 | Total Depth (ft): | N/A |
| Depth to Refusal (ft): | N/A | Screen Length (ft): | N/A |
| Depth to Water (ft): | 5.5 | Depth to Water (ft): | N/A |
| Depth to Rock (ft): | N/A | Slot Size: | N/A |

DRILLER: C. Iodice
LBA INSPECTOR: J. Lacanlale
NORTHING: N/A
EASTING: N/A
SURFACE ELEVATION: N/A

NOTES:

| Well Construction | Depth | Lithology | USCS | Sample Interval | Sample Recovery | Blows/6 in | PID (ppm) | Description | Remarks |
|-------------------|-------|-----------|------|-----------------|-----------------|------------|-----------|--|---|
| | 0 | | SP | | | | <1 | Dark yellowish brown (10YR4/2) coarse to fine SAND, trace Silt, little medium to fine Gravel; moist. | Sand |
| | 2 | | | | | | | | |
| | 4 | | | | | | | | |
| | 6 | | SP | | | | <1 | Pale yellowish brown (10YR6/2) medium to fine SAND, trace Silt; wet. | Water Level at 5.5 ft bgs |
| | 8 | | SP | | | | <1 | Medium gray (N5) medium to fine SAND, trace Silt; wet. | Composite soil sample SB27 collected from 0 to 5.5 ft bgs; VOC collected from 5.0 to 5.5 ft bgs |
| | 10 | | | | | | | | End of Boring at 10 ft bgs |

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| | | | |
|--|--------------------------------------|---------------------------------|------------------------------------|
| Louis Berger & Assoc., P.C. 48 Wall Street, 16th Floor New York, New York 10005 | <h1>Drilling Log</h1> Page 1 of 1 | | BORING ID: SB28 |
| | | | WELL ID: N/A |
| | | | LOCATION: Brooklyn, NY |
| CLIENT: New York City Department of Design and Construction | | | PROJECT NO: SPC870H7 |
| PROJECT: Coney Island Area-Surf Ave Between W 8th Str and 10th Str | | | FMS ID#: CONISPH01 |
| DRILLING CONTRACTOR: Aquifer Drilling and Testing, Inc. | | | WOL #: 7691-LBA-3-7365 |
| DRILLING METHOD: Geoprobe Direct Push | | | DATE STARTED: 9/23/2011 |
| BOREHOLE DATA | | WELL DATA | |
| Diameter (in): 2 | | Well Diameter: N/A | DRILLER: C. Iodice |
| Total Depth (ft): 10.00 | | Total Depth (ft): N/A | LBA INSPECTOR: R. Weissbard |
| Depth to Refusal (ft): N/A | | Screen Length (ft): N/A | NORTHING: N/A |
| Depth to Water (ft): 5.5 | | Depth to Water (ft): N/A | EASTING: N/A |
| Depth to Rock (ft): N/A | | Slot Size: N/A | SURFACE ELEVATION: N/A |
| NOTES: | | | |

| Well Construction | Depth | Lithology | USCS | Sample Interval | Sample Recovery | Blows/6 in | PID (ppm) | Description | Remarks |
|-------------------|-------|-----------|------|-----------------|-----------------|------------|-----------|---|---|
| | 0 | | SP | | | | <1 | Moderate yellowish brown (10YR5/4) medium to fine SAND, trace Silt, trace fine Gravel; moist. | Sand |
| | 2 | | | | | | | | Composite soil sample SB28 collected from 0 to 5.5 ft bgs; VOC collected from 5.0 to 5.5 ft bgs |
| | 4 | | | | | | | | |
| | 6 | | SP | | | | <1 | Moderate yellowish brown (10YR5/4) medium to fine SAND, trace Silt; wet. | Water Level at 5.5 ft bgs |
| | 8 | | | | | | | | |
| | 10 | | | | | | | | End of Boring at 10 ft bgs |

| | |
|---|--------------------------------|
| CLIENT: New York City Department of Design and Construction | PROJECT NO: SPC870H7 |
| PROJECT: Coney Island Area-Surf Ave Between W 8th Str and 10th Str | FMS ID#: CONISPH01 |
| DRILLING CONTRACTOR: Aquifer Drilling and Testing, Inc. | WOL #: 7691-LBA-3-7365 |
| DRILLING METHOD: Geoprobe Direct Push | DATE STARTED: 9/20/2011 |

| BOREHOLE DATA | WELL DATA | DATE FINISHED: |
|----------------------------|--------------------------|------------------------------------|
| Diameter (in): 2 | Well Diameter: N/A | 9/20/2011 |
| Total Depth (ft): 10.00 | Total Depth (ft): N/A | DRILLER: C. Iodice |
| Depth to Refusal (ft): N/A | Screen Length (ft): N/A | LBA INSPECTOR: J. Lacanlale |
| Depth to Water (ft): 5.5 | Depth to Water (ft): N/A | NORTHING: N/A |
| Depth to Rock (ft): N/A | Slot Size: N/A | EASTING: N/A |
| | | SURFACE ELEVATION: N/A |

NOTES:

| Well Construction | Depth | Lithology | USCS | Sample Interval | Sample Recovery | Blows/6 in | PID (ppm) | Description | Remarks |
|-------------------|-------|-----------|------|-----------------|-----------------|------------|-----------|---|---|
| | 0 | FILL | | | | | <1 | Moderate yellowish brown (10YR5/4) medium to fine SAND, trace Silt, little medium to fine Gravel; moist. | Sand (Fill) |
| | 2 | FILL | | | | | <1 | Medium dark gray (N4) coarse to fine SAND, little coarse to fine Gravel (15% fill material: brick debris); moist. | |
| | 4 | | | | | | | | Composite soil sample SB29 collected from 0 to 5.5 ft bgs; VOC collected from 5.0 to 5.5 ft bgs |
| | 6 | SP | | | | | <1 | Dusky yellowish brown (10YR2/2) medium to fine SAND, trace Silt; wet. | |
| | 8 | SP | | | | | <1 | Medium gray (N5) medium to fine SAND, trace Silt; wet. | Water Level at 5.5 ft bgs |
| | 10 | | | | | | | | |

Louis Berger & Assoc., P.C.
 48 Wall Street, 16th Floor
 New York, New York 10005

Drilling Log

Page 1 of 1

BORING ID: SB30
WELL ID: N/A
LOCATION: Brooklyn, NY
PROJECT NO: SPC870H7
FMS ID#: CONISPH01
WOL #: 7691-LBA-3-7365
DATE STARTED: 9/20/2011
DATE FINISHED: 9/20/2011
DRILLER: C. Iodice
LBA INSPECTOR: J. Lacanlale
NORTHING: N/A
EASTING: N/A
SURFACE ELEVATION: N/A

CLIENT: New York City Department of Design and Construction
PROJECT: Coney Island Area-Surf Ave Between W 8th Str and 10th Str
DRILLING CONTRACTOR: Aquifer Drilling and Testing, Inc.
DRILLING METHOD: Geoprobe Direct Push

| BOREHOLE DATA | | WELL DATA | |
|------------------------|-------|----------------------|-----|
| Diameter (in): | 2 | Well Diameter: | N/A |
| Total Depth (ft): | 10.00 | Total Depth (ft): | N/A |
| Depth to Refusal (ft): | N/A | Screen Length (ft): | N/A |
| Depth to Water (ft): | 5.5 | Depth to Water (ft): | N/A |
| Depth to Rock (ft): | N/A | Slot Size: | N/A |

NOTES:

| Well Construction | Depth | Lithology | USCS | Sample Interval | Sample Recovery | Blows/6 in | PID (ppm) | Description | Remarks |
|-------------------|-------|-----------|------|-----------------|-----------------|------------|-----------|---|--|
| | 0 | | SP | | | | <1 | Dark yellowish brown (10YR4/2) coarse to fine SAND, little Silt, little coarse to fine Gravel; moist. | Sand Composite soil sample SB30 collected from 0 to 5.0 ft bgs; VOC collected from 4.5 to 5.0 ft bgs Water Level at 5.5 ft bgs End of Boring at 10 ft bgs |
| | 2 | | | | | | | | |
| | 4 | | | | | | | | |
| | 6 | | SP | | | | <1 | Dark yellowish brown (10YR4/2) medium to fine SAND, trace Silt; wet. | |
| | 8 | | | | | | | | |
| | 10 | | | | | | | | |

| | | | | |
|---|---------------------------------|--|--|--|
| Louis Berger & Assoc., P.C. 48 Wall Street, 16th Floor New York, New York 10005 | | <h1 style="margin: 0;">Drilling Log</h1> <p style="margin: 0;">Page 1 of 1</p> | | BORING ID: SB31 WELL ID: N/A LOCATION: Brooklyn, NY |
| CLIENT: New York City Department of Design and Construction | | PROJECT NO: SPC870H7 | | |
| PROJECT: Coney Island Area-Surf Ave Between W 8th Str and 10th Str | | FMS ID#: CONISPH01 | | |
| DRILLING CONTRACTOR: Aquifer Drilling and Testing, Inc. | | WOL #: 7691-LBA-3-7365 | | |
| DRILLING METHOD: Geoprobe Direct Push | | DATE STARTED: 9/20/2011 | | |
| BOREHOLE DATA | | WELL DATA | | |
| Diameter (in): 2 | Well Diameter: N/A | DRILLER: C. Iodice | | |
| Total Depth (ft): 10.00 | Total Depth (ft): N/A | LBA INSPECTOR: J. Lacanlale | | |
| Depth to Refusal (ft): N/A | Screen Length (ft): N/A | NORTHING: N/A | | |
| Depth to Water (ft): 5.5 | Depth to Water (ft): N/A | EASTING: N/A | | |
| Depth to Rock (ft): N/A | Slot Size: N/A | SURFACE ELEVATION: N/A | | |
| NOTES: | | | | |

| Well Construction | Depth | Lithology | USCS | Sample Interval | Sample Recovery | Blows/6 in | PID (ppm) | Description | Remarks |
|-------------------|-------|-----------|------|-----------------|-----------------|------------|-----------|---|--|
| | 0 | | SP | | | | <1 | Dark yellowish brown (10YR4/2) medium to fine SAND, trace fine Gravel; moist. | Sand |
| | 2 | | | | | | | | |
| | 4 | | | | | | | | Compositesoil sample SB31 collected from 0 to 5.5 ft bgs; VOC collected from 5.0 to 5.5 ft bgs |
| | 6 | | SP | | | | <1 | Light gray (N7) medium to fine SAND, trace Silt; wet. | Water Level at 5.5 ft bgs |
| | 8 | | | | | | | | |
| | 10 | | | | | | | | End of Boring at 10 ft bgs |

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APPENDIX C
LABORATORY ANALYTICAL RESULTS
(INCLUDED ON THE ATTACHED CD)



APPENDIX D
NYCDEP APPROVED WORK PLAN AND ACCEPTANCE LETTER



**Environmental
Protection**

Carter H. Strickland Jr.
Commissioner

Angela Licata
Deputy Commissioner
Environmental Planning and
Analysis
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59-17 Junction Boulevard
Flushing, NY 11373
T: (718) 595-4398
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MEMORANDUM

To: Rebecca Tummon, DDC
From: Julie Stein, DEP *AW for JS*
Date: September 2, 2011
Re: Coney Island Creek Amended Drainage Plan – 11DEP045K

The New York City Department of Environmental Protection (DEP), Bureau of Environmental Planning and Analysis (BEPA) has reviewed the April 2011 Phase I Environmental Site Assessment Report (Phase I), the July 2011 Phase II Subsurface Investigation Work Plan (Phase II Work Plan) and Health and Safety Plan (HASP) prepared by Louis Berger & Associates, PC on behalf of the New York City Department of Design and Construction (DDC) for the above referenced project.

BEPA understands that the proposed project is to amend the drainage plan for Coney Island Creek in Brooklyn, Community District 11. The objective of the amended drainage plan is to improve existing sanitary and storm infrastructure within the drainage area by repairing and enlarging three existing outfalls in Coney Island Creek. The general boundaries of the proposed amended drainage plan are Coney Island Creek to the north, Coney Island boardwalk to the south, West 8th Street to the east and West 21st Street to the west. The area covered under the proposed plan is approximately 248 acres and is predominantly comprised of amusement, commercial and residential uses.

The April 2001 Phase I report revealed that historical on-site and surrounding area land uses consisted of residential, commercial and institutional uses including several auto repair facilities, a police station and fire house, multiple educational institutions, storefronts, single and residential apartments buildings. It should be noted that manhole covers, asphalt patches, sidewalk lights, street lights were observed throughout the corridor and indicate the presence of multiple buried utilities, including sewer, electric, water, gas and communication.

The July 2011 Phase II Subsurface Investigation Work Plan proposes the installation of 31 soil borings (20 for "High" risk and 11 for "Moderate" risk boring locations) to a depth of groundwater interface or approximately 20 feet below ground surface (bsg). Two soil samples (one composite sample and one grab sample) will be collected from the 20 "High" risk boring locations. The composite samples will be collected and analyzed for Target Compound List Semi-Volatile Organic Compounds (TCL SVOCs), Target Analyte List (TAL) Metals, pesticides, herbicides and polychlorinated biphenyls (PCBs). The grab sample will be collected and analyzed for TCL VOCs. One composite soil sample will be collected from the "Moderate" risk boring locations and analyzed for TCL SVOCs, TAL Metals, pesticides, herbicides and PCBs. In addition, one grab sample will be collected and analyzed for TCL VOCs. As currently proposed, an aliquot of each composite sample will

be reserved for waste characterization analysis. Eight (8) waste characterization samples will be collected and analyzed for full Toxicity Characteristics Leaching Procedure (TCLP) and Resource Conservation and Recovery Act (RCRA) characteristics including ignitability, reactivity and corrosivity. Six (6) groundwater samples will be collected via temporary well points ("High" risk boring locations) and analyzed for TCL VOCs, TCL SVOCs, TAL Metals, pesticides, herbicides, PCBs and NYCDEP Sanitary and Combined Sewer Discharge Parameters.

Two soil borings will be conducted in the vicinity of "Moderate" risk sites at a depth of groundwater interface or to a depth of 20 feet bsg. One composite soil sample and one grab sample will be collected from each soil boring location. Composite samples will be analyzed for TCL SVOCs, TAL Metals, pesticides, herbicides and PCBs, and grab samples will be analyzed for TCL VOCs. One waste characterization sample will be composited and analyzed for full Toxicity Characteristics Leaching Procedure (TCLP) and Resource Conservation and Recovery Act (RCRA) characteristics, including ignitability, reactivity and corrosivity. One groundwater sample will be collected via temporary well point (near the intersection of Surf Avenue and West 8th Street) and analyzed for NYCDEP Sanitary and Combined Sewer Discharge Parameters.

Based on our review of the submitted documentation, we have the following comments/recommendations to DDC:

- o DDC should instruct the consultant that soil and groundwater samples should be collected and analyzed by a New York State Department of Health Environmental Laboratory Approval Program certified laboratory for the presence of TCL VOCs by EPA Method 8260, TCL SVOCs by EPA Method 8270, Pesticides/PCBs by EPA Method 8081/8082 and Target Analyte List (TAL) metals (filtered and unfiltered for groundwater samples).
- o DDC should inform the consultant that upon completion of the investigation activities, the consultant should submit a detailed Phase II report to DEP for review and approval. The report should include, at a minimum, an executive summary, narrative of the field activities, laboratory data and conclusions, comparison of soil and groundwater analytical results (i.e., New York State Department of Environmental Conservation (NYSDEC) 6NYCRR PART 375 and NYSDEC Water Quality Regulations), updated site plans depicting sample locations, boring logs, and remedial recommendations, if warranted.

BEPA finds the Phase II Work Plan and HASP for the proposed project acceptable, contingent upon the aforementioned recommendations and as long as additions are incorporated into the Work Plan.

Please contact Alexander Wolk at (718) 595-6450 or awolk@dep.nyc.gov with any questions.

c: A. Wolk, DEP
J. Stein, DEP
R. Tummon, DDC

**Work Plan for the Phase II Subsurface Corridor Investigation
for
Storm, Sanitary Sewers and Water Mains in Coney Island Area
Area Bounded by Belt Pwky, West 28th St, Rockaway Inlet and W 8th St
Brooklyn, New York**

DDC PROJECT NO. CONISPH01

TASK NO. 7691

CONTRACT REGISTRATION NO. 20101417626

Prepared for:



Bureau of Environmental and Geotechnical Services
30-30 Thomson Avenue, Fifth Floor
Long Island City, New York 11101

Prepared by:



Louis Berger & Assoc., PC
48 Wall Street, 16th Floor
New York, NY 10005
Tel. (212) 612-7900
Fax (212) 363-4341
Project No. SPC-870H7

September 6, 2011

AS-154



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1.0 INTRODUCTION

Louis Berger & Assoc., PC. (LBA) has been tasked to perform a Phase II Subsurface Corridor Investigation (SCI) on behalf of the New York City Department of Design and Construction (NYCDDC) for the Coney Island area of Brooklyn, New York (hereinafter referred to as the "Corridor"). The Corridor consists of the general area bounded by Neptune Avenue and Hart Place to the north, West 12th Street to the east, Surf Ave to the south, and West 28th Street to the west (Figures 1 and 2). The New York City Department of Environmental Protection (NYCDEP) is proposing a drainage improvement plan within portions of the Corridor. According to the New York City Economic Development Corporation (NYCEDC) and NYCDDC, proposed infrastructure improvements will be implemented in five phases (Phases I through V) (Figure 3). Currently, Phases IV and V have been proposed; however, the areas comprising Phases IV and V have not been formally defined.

The NYCDEP's proposal also includes the upgrading and enlargement of three (3) existing drainage outfalls to Coney Island Creek. The outfalls are located at the intersection of Coney Island Creek with West 12th Street, West 15th Street and West 21st Street. Larger storm sewers are proposed in order to improve storm water flow to Coney Island Creek and reduce flooding throughout the Corridor.

This Phase II SCI Workplan has been prepared to evaluate the Phase I, II and III portions for this Corridor as well as the three associated outfall areas as depicted on Figure 2. The roadways comprising Phases I, II and III are as follows:

Phase I:

- Surf Avenue between West 15th Street and West 12th Street
- West 15th Street between Surf Avenue and Coney Island Creek

Phase II:

- Neptune Avenue between West 20th Street and West 22nd Street
- Mermaid Avenue between West 20th Street and West 24th Street
- Surf Avenue between West 20th and West 22nd Street
- West 21st Street between Surf Avenue and Neptune Avenue



Phase III:

- Stillwell Avenue between Surf Avenue and Coney Island Creek
- Neptune Avenue between Stillwell Avenue and West 12th Street
- West 12th Street between Neptune Avenue and Coney Island Creek

If the NYCEDC or NYCDDC intends to complete upgrades in portions of the Corridor not depicted as Phase I, II or III in Figures 2 and 3, additional investigation may be appropriate/required.

LBA prepared a Phase I Corridor Assessment Report (CAR) for the Corridor in April 2011. The Phase I CAR presented the results of an investigation to document the current use, a review of Sanborn fire insurance maps, aerial photos and topographic maps to document historical use, and a review of the state and federal government databases to identify sites on or adjoining the Corridor that constitute a potential environmental concern. Based on Risk Criteria protocol established by the NYCDDC, findings presented in the Phase I CAR defined these sites as posing either "High", "Moderate" or "Low" risk for possible contamination to the subsurface environment along the Corridor. Refer to Table 1 for a list of the "High" and "Moderate" Risk sites associated with this Phase II SCI.

This Phase II SCI is planned to investigate if environmental conditions along the Corridor may impact proposed construction activities. More specifically, this Phase II SCI is planned to evaluate the portion of the Corridor which comprises the areas to be affected by Phases I through III of NYCDEP's proposed drainage improvement plan. As stated above, the areas comprising Phases IV and V have not been defined therefore, no subsurface investigation activities are proposed for Phase IV and V at this time. The Phase II SCI will consist of soil and groundwater sampling for environmental parameters with subsequent reporting. LBA's CAR originally proposed a total of 134 soil borings to investigate "High" and "Moderate" risk sites along the Corridor and within the Corridor vicinity. LBA proposed a total of two (2) soil borings for every "High" Risk site and one (1) soil boring for every "Moderate" Risk site. However, based on further review by LBA, it was observed that many of the "High" and "Moderate" risk sites are present in close vicinity to each other or "clusters" near the Corridor, and thus, many of LBA's proposed borings would overlap. Therefore, LBA proposes 31 borings which will adequately investigate "High" and "Moderate" risk sites along the portion of the Corridor to be affected by Phase I through Phase III of NYCDEP's proposed



drainage improvement plan. Refer to Figures 4, 5 and 6 for the proposed sampling location plans and Table 1 for the "High" and "Moderate" risk sites associated with each proposed sampling location. The Phase II SCI report will be submitted to NYCDEP for review and approval as part of the City Environmental Quality Review (CEQR) process.



2.0 SOIL SAMPLING AND ANALYSIS

Soil borings will be advanced in roadways or sidewalks using a direct push drill rig. Proposed field investigation activities include the advancement of 31 soil borings to the soil / groundwater interface, a maximum depth of twenty (20) feet below ground surface (bgs), or top of bedrock (whichever is encountered first). To ensure clearance of subsurface utilities, soil borings will be hand-cleared to a depth of at least five (5) feet bgs using an air knife, post hole digger, hand auger or a combination thereof. After hand-clearing, each boring will be advanced utilizing continuous direct push macrocore sampling. Of the 31 proposed boring locations, 11 are considered "Moderate" risk soil borings and 20 are considered "High" risk soil borings, based on their relative location to "Moderate" and "High" risk sites as indicated in LBA's CAR (See Figures 5 and 6). For each boring advanced, a description of soil lithology will be classified along the vertical length of the soil column by an LBA Geologist/Scientist according to the Burmister soil classification system.

2.1 High Risk Borings

For the 20 "High" risk soil borings, one (1) composite sample will be collected from grade to the bottom of the boring. The boring composite samples will be analyzed by a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) certified laboratory for Target Compound List semi-volatile organic compounds (TCL SVOCs) by United States Environmental Protection Agency (USEPA) Method 8270C, Target Analyte List (TAL) metals by USEPA Method 6010B and 7471A, pesticides by USEPA Method 8081, herbicides by USEPA Method 8151A and polychlorinated biphenyls (PCBs) by USEPA Method 8082. Soil from each boring will be screened for volatile organic compounds (VOCs) along the vertical length of the soil column using a photoionization detector (PID) and visual/olfactory senses. One (1) grab soil sample will be collected from the depth interval exhibiting the highest evidence of contamination, to be analyzed for TCL VOCs by USEPA Method 8260B. If there is no evidence of contamination, the grab sample will be collected from the 6-inch depth interval directly above the groundwater table or the bottom 6-inch interval of the boring if the water table is not encountered. Quality Assurance/Quality Control (QA/QC) will consist of two (2) field duplicates to be collected from a "High" risk soil boring.



2.2 Moderate Risk Borings

For the 11 "Moderate" risk borings, one (1) composite sample will be collected from grade to the bottom of the boring. The boring composite samples will be analyzed by a NYSDOH ELAP certified laboratory for TCL SVOCs USEPA Method 8270C, TAL metals by USEPA Method 6010B and 7471A, pesticides by USEPA Method 8081, herbicides by USEPA Method 8151A and polychlorinated biphenyls (PCBs) by USEPA Method 8082. Soil from each boring will be screened for VOCs along the vertical length of the soil column using a PID and visual/olfactory senses. One (1) grab soil sample will be collected from the depth interval exhibiting the highest evidence of contamination, to be analyzed for TCL VOCs by USEPA Method 8260B. If there is no evidence of contamination, the grab sample will be collected from the 6-inch depth interval directly above the groundwater table or the bottom 6-inch interval of the boring if the water table is not encountered.

2.3 Waste Characterization

An aliquot of each composite sample will be reserved for waste characterization analysis. Eight (8) waste characterization samples (TCLP01 through TCLP08) will be composited for this project. Sample TCLP01 will be created by compositing aliquots from samples SB01 through SB07; TCLP02 will be collected from SB08 through SB11; TCLP03 will be collected from SB12 and SB13; TCLP04 will be collected from SB14 through SB16; TCLP05 will be collected from SB17 and SB18; TCLP06 will be collected from SB19 through SB21; TCLP07 will be collected from SB22 through SB24; and TCLP08 will be collected from SB25 through SB31. The waste characterization sample will be analyzed for Full Toxicity Characteristics Leaching Procedure (TCLP) and Resource Conservation and Recovery Act (RCRA) Characteristics including ignitability, reactivity and corrosivity.



3.0 GROUNDWATER SAMPLING AND ANALYSIS

Six (6) temporary well points (TWPs) will be installed at "High" risk boring locations SB07, SB10, SB13, SB15, SB20 and SB24 (See Figures 4 and 5). TWP07 will be installed near the intersection of West 15th Street and Hart Place; TWP10 will be installed near the intersection of Surf Avenue and Stillwell Avenue; TWP13 will be installed along Surf Avenue between West 21st Street and West 20th Street; TWP15 will be installed near the intersection of West 21st Street and Neptune Avenue; TWP20 will be installed near the intersection of West 20th Street and Neptune Avenue; and TWP24 will be installed near the intersection of Neptune Avenue and West 12th Street. The TWPs will be completed at a depth to produce sufficient water for the proposed sample collection, but no deeper than 20 feet bgs. A groundwater sample will be collected from the TWP using a Direct Push Technology (DPT) stainless-steel discrete groundwater sampling tool or by temporarily installing a slotted PVC screen bridging the water table and enough PVC riser pipe to bring the TWP to grade surface. Dedicated polyethylene tubing will then be deployed in the TWP and connected to a peristaltic pump or check lift valve to extract the groundwater sample. The groundwater sample will be analyzed by a NYSDOH ELAP certified laboratory for TCL SVOCs USEPA Method 8270C, TAL metals (both filtered and unfiltered) by USEPA Method 6010B and 7470A, pesticides by USEPA Method 8081, herbicides by USEPA Method 8151A and polychlorinated biphenyls (PCBs) by USEPA Method 8082 and NYCDEP Sanitary and Combined Sewer Discharge Parameters. QA/QC samples will consist of one (1) field duplicate, and one (1) field blank along with one (1) trip blank for each cooler containing TCL VOC samples.

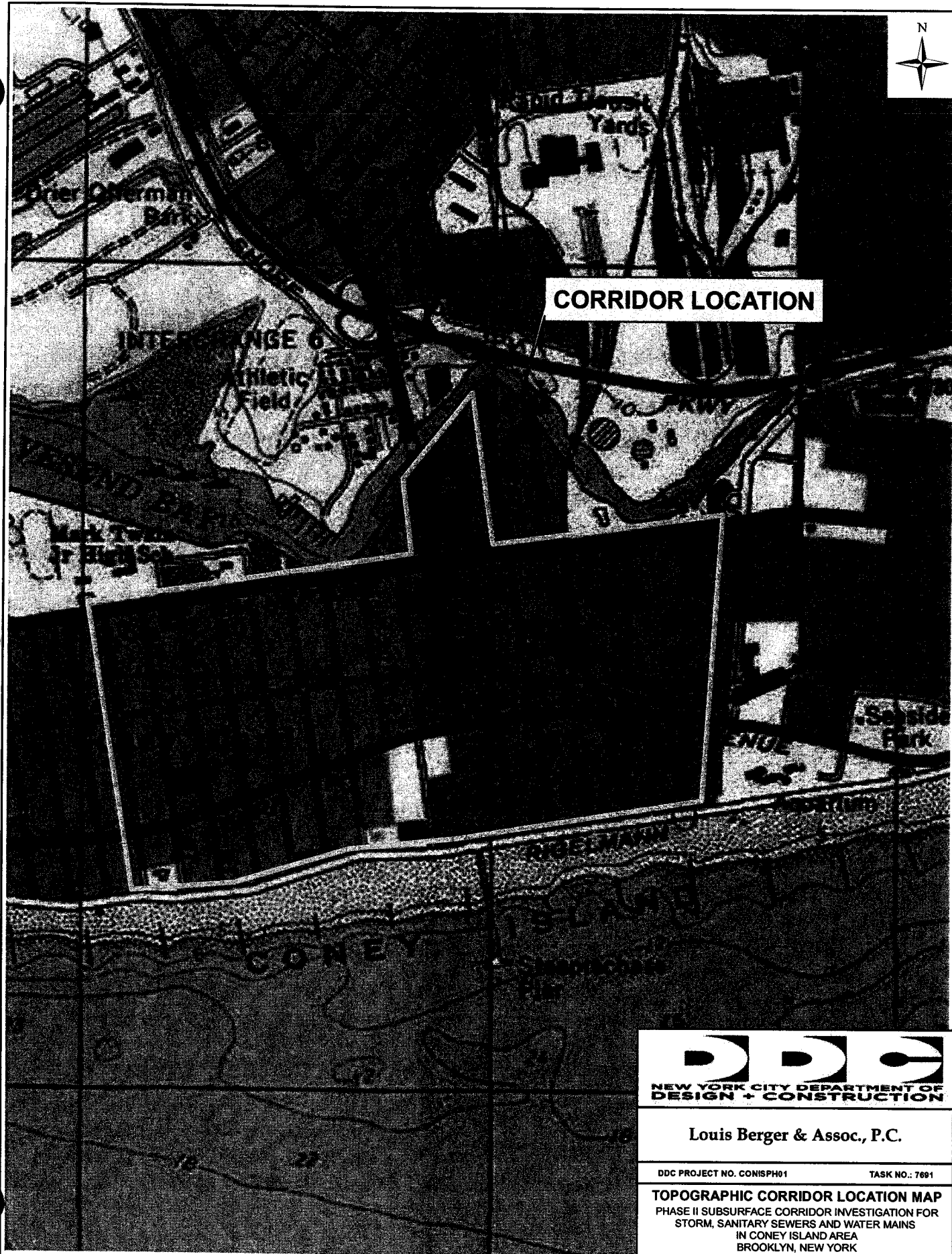


4.0 REPORTING

Upon completion of the investigation activities, LBA will submit a detailed Phase II SCI Report to NYCDEP for review and approval as part of the City Environmental Quality Review (CEQR) process. The report will include, at a minimum, an executive summary, narrative of the field activities, laboratory data and conclusions, comparison of soil and groundwater analytical results to appropriate state and federal regulatory levels (i.e., New York State Department of Environmental Conservation (NYSDEC) 6NYCRR PART 375 and NYSDEC Water Quality Regulations), updated site plans depicting sample locations, boring logs and recommendations of the investigation including an opinion regarding possible waste classification of the soils and groundwater, if encountered (i.e., hazardous or non-hazardous).

Prepared by:

Evan Mankoff, P.G.
Manager, Subsurface Investigations



CORRIDOR LOCATION



Louis Berger & Assoc., P.C.

DDC PROJECT NO. CONISPH01 TASK NO.: 7691
TOPOGRAPHIC CORRIDOR LOCATION MAP
PHASE II SUBSURFACE CORRIDOR INVESTIGATION FOR
STORM, SANITARY SEWERS AND WATER MAINS
IN CONEY ISLAND AREA
BROOKLYN, NEW YORK

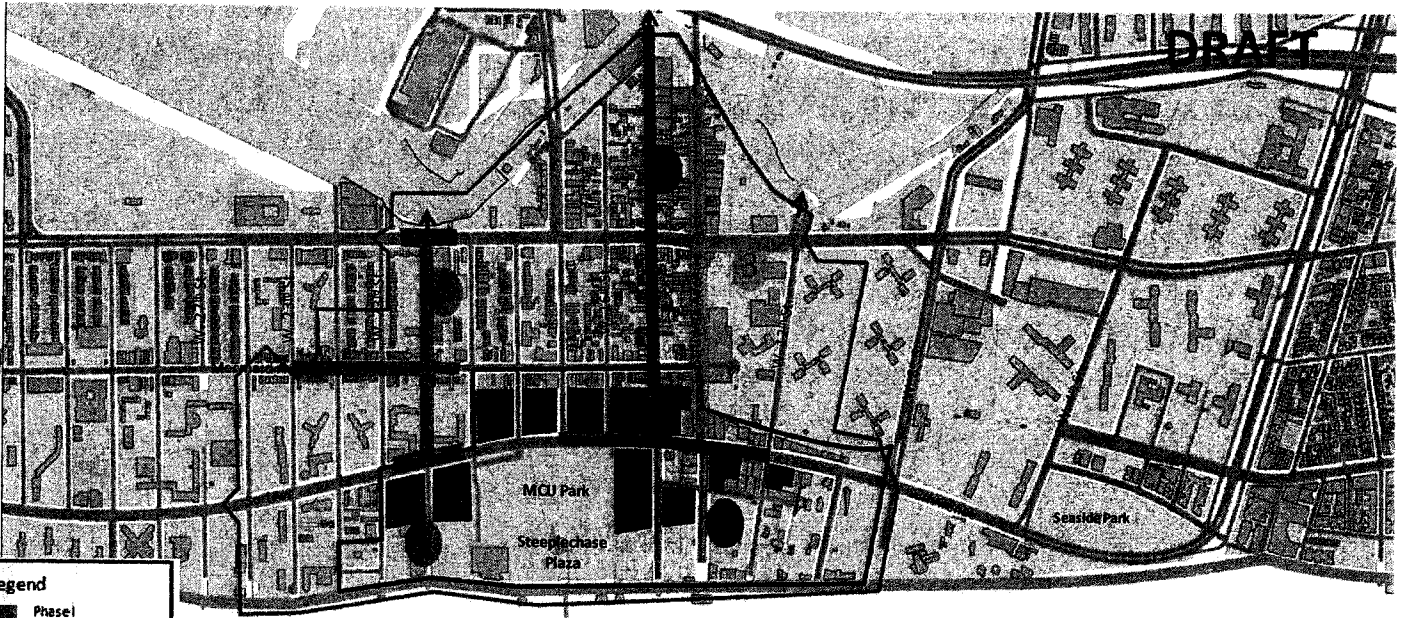
Source: USGS Quadrangle Coney Island, New York

SCALE: 1" = 1000' DATE: 6/3/2011 FIGURE: 1

A5-163



AS-164



Legend

- Phase 1
- Phase 2
- Phase 3
- Phase 4
- Phase 5
- Development Sites
- Outfall Area

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Louis Berger & Assoc., P.C.

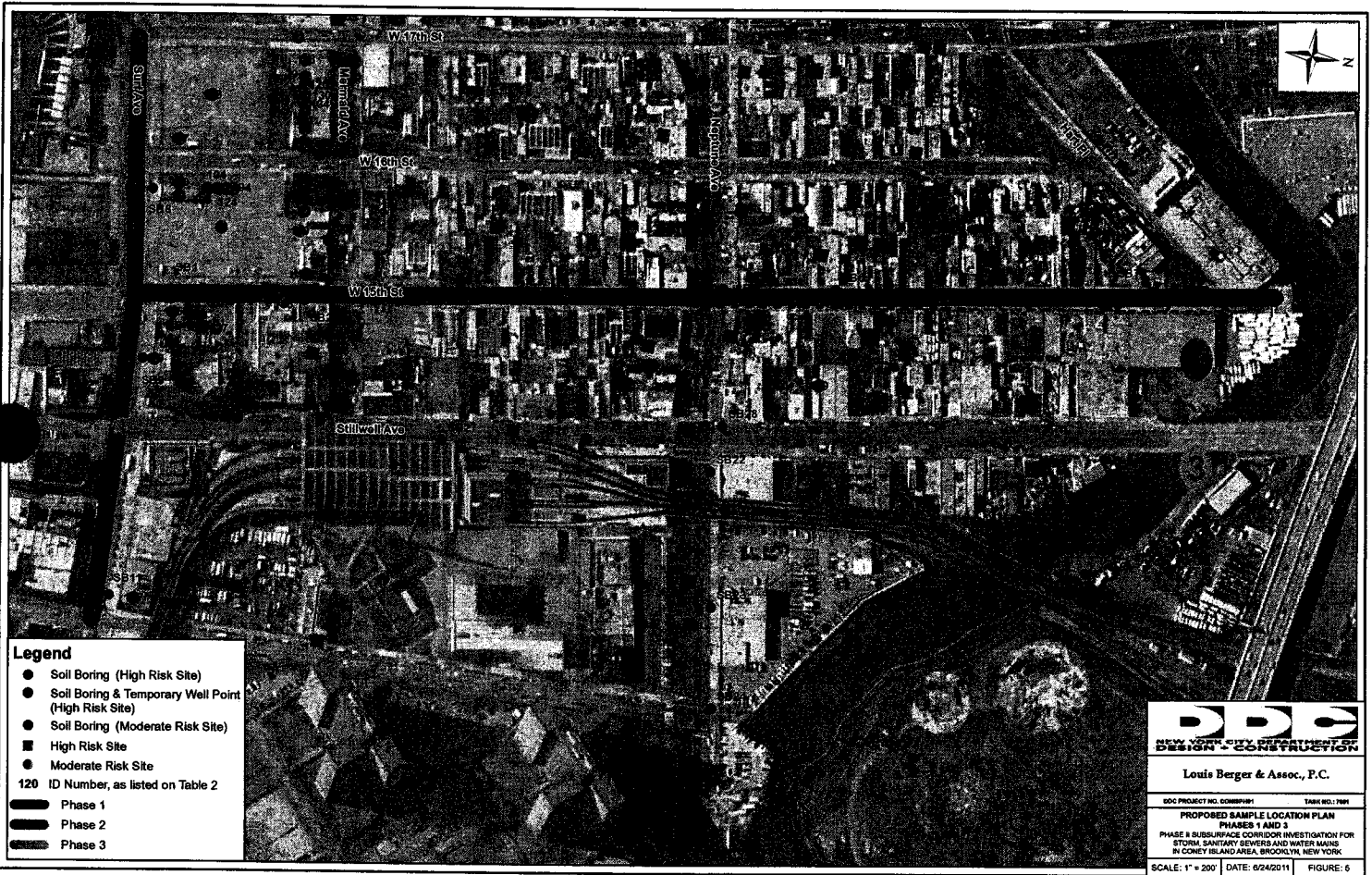
DDC PROJECT NO. 00000901 TASK NO. 1001

PROPOSED INFRASTRUCTURE
IMPLEMENTATION MAP
PHASE 1 CORRIDOR ASSESSMENT REPORT
STORM, SANITARY SEWERS AND WATER MAINS
IN CONEY ISLAND AREA, BROOKLYN, NEW YORK

SCALE = NTS DATE: 4/8/2011 FIGURE: 4



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Legend

- Soil Boring (High Risk Site)
- Soil Boring & Temporary Well Point (High Risk Site)
- Soil Boring (Moderate Risk Site)
- High Risk Site
- Moderate Risk Site
- 120 ID Number, as listed on Table 2
- Phase 1
- Phase 2
- Phase 3

DBE
 NEW YORK CITY DEPARTMENT OF
 DESIGN + CONSTRUCTION

Louis Berger & Assoc., P.C.

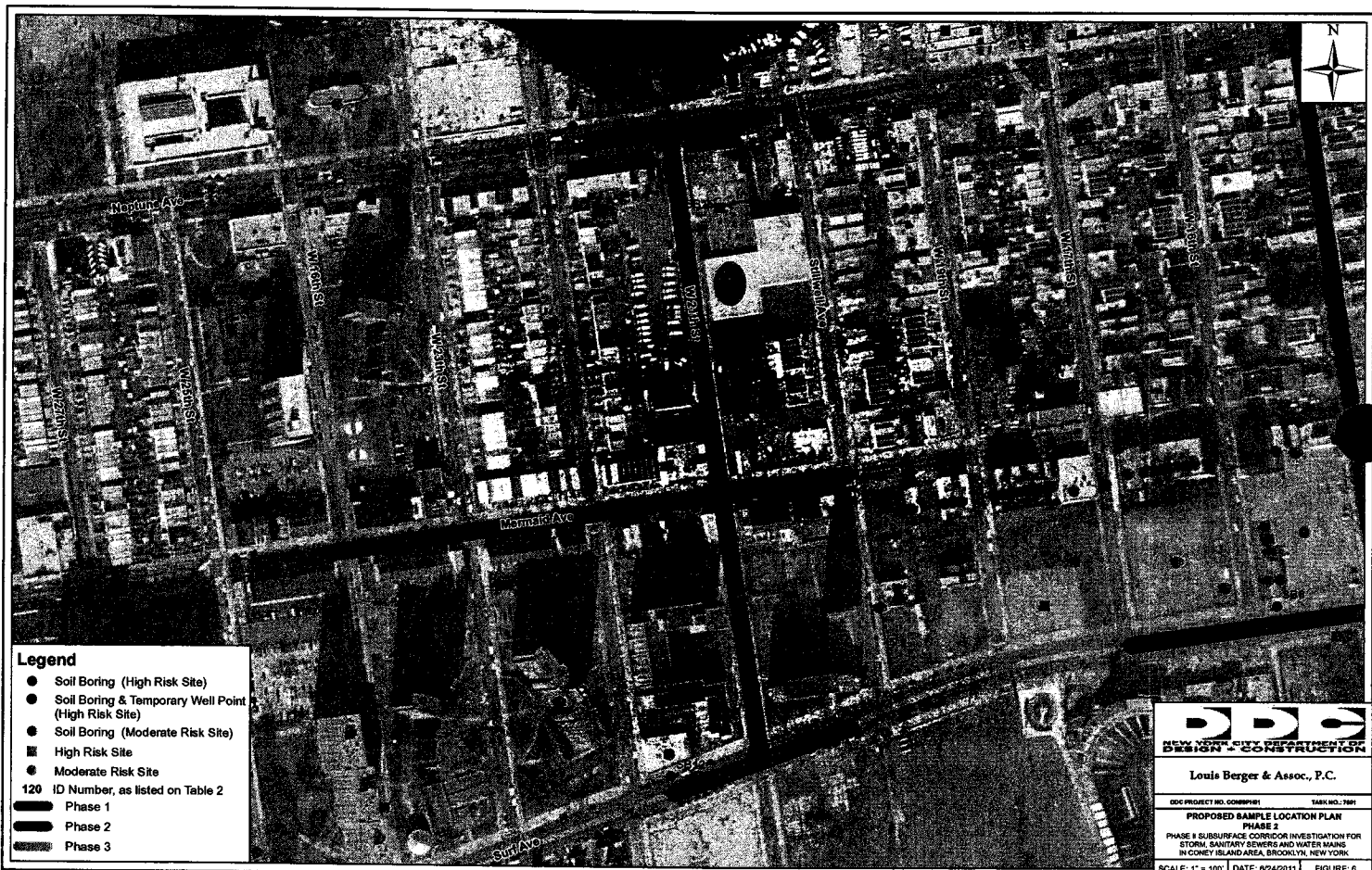
SDC PROJECT NO. 020809001 TASK NO. 1701

**PROPOSED SAMPLE LOCATION PLAN
 PHASES 1 AND 3**

PHASE 2 SUBSURFACE CORRIDOR INVESTIGATION FOR
 STORM, SANITARY SEWERS AND WATER MAINS
 IN CONEY ISLAND AREA, BROOKLYN, NEW YORK

SCALE: 1" = 200' DATE: 02/20/11 FIGURE: 6

A5-167



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TABLE 1
Proposed Borings and Adjacent "High" and "Moderate" Risk Sites
Storm, Sanitary Sewer, and Water Mains in Coney Island Area
Brooklyn, New York
DDC Project No. CONISPH01
Work Order No. Pending

| Boring Number | Site ID# | Site Description / Address | Risk Category |
|---------------|----------|---|---------------|
| SB1 | 125 | E Designation 1329 Surf Avenue | Moderate |
| | 97 | Parking lot 2937 West 15th Street | Moderate |
| | 88 | Parking lot 2910 West 15th Street | Moderate |
| | 113 | E Designation 1323 Surf Avenue | Moderate |
| | 137 | E Designation 2931 West 15th Street | Moderate |
| SB2 | 135 | E Designation 2911 West 15th Street | Moderate |
| | 132 | TFL Party Planners 2906 West 15th Street | Moderate |
| | 127 | Sneaker Town Sports Gear 1502 Mermaid Avenue | Moderate |
| | 29 | Best Choice Cleaners 1506 Mermaid Avenue | High |
| | 80 | 3000 gallon AST 2905 West 15th Street | Moderate |
| SB3 | 9 | Unitek Auto Center, Inc. 2807 West 15th Street | High |
| | 60 | Auto Repair of Brooklyn 1422 Neptune Avenue | High |
| | 12 | Neptune Auto Repair 1515 Neptune Avenue | High |
| SB4 | 9 | Unitek Auto Center, Inc. 2807 West 15th Street | High |
| | 12 | Neptune Auto Repair 1515 Neptune Avenue | High |
| | 13 | Lev's Auto Repair 1515 Neptune Avenue | High |
| | 60 | Auto Repair of Brooklyn 1422 Neptune Avenue | High |
| SB5 | 13 | Lev's Auto Repair 1515 Neptune Avenue | High |
| | 59 | Larry's Radiator Repair 1421 Neptune Avenue | High |
| SB6 | 2 | Sea Breeze Auto Body 2772 West 15th Street | High |
| SB7 | 8 | General Iron Corp. 2709-2715 West 15th Street | High |

TABLE 1
Proposed Borings and Adjacent "High" and "Moderate" Risk Sites
Storm, Sanitary Sewer, and Water Mains in Coney Island Area
Brooklyn, New York
DDC Project No. CONISPH01
Work Order No. Pending

| Boring Number | Site ID# | Site Description / Address | Risk Category |
|---------------|----------|--|---------------|
| SB8 | 117 | E Designation 1601 Surf Avenue | Moderate |
| | 120 | Parking lot 1527 Surf Avenue | Moderate |
| | 87 | Footprints Bar and Café 1521 Surf Avenue | Moderate |
| | 108 | Parking lot 2933 West 16th Street | Moderate |
| SB8 | 104 | Parking lot 2929 West 16th Street | Moderate |
| | 124 | Parking lot 2927 West 16th Street | Moderate |
| | 94 | Parking lot 2924 West 16th Street | Moderate |
| | 88 | Parking lot 2910 West 15th Street | Moderate |
| | 133 | Parking lot 1607 Surf Avenue | Moderate |
| SB9 | 110 | Coney Island Surf & Turf Grill 1315 Surf Avenue | Moderate |
| | 111 | E Designation 1319 Surf Avenue | Moderate |
| | 113 | E Designation 1323 Surf Avenue | Moderate |
| SB10 | 93 | Police District No. 34 facility 1237 Surf Avenue | Moderate |
| | 24 | Vacant lot with heavy machinery and trailer 1228 Surf Avenue | High |
| SB11 | 107 | Coney Island Furniture and Bratua Sports Bar 1207 Surf Avenue | Moderate |
| | 63 | NYCTA Parking lot and facility 2906 West 12th Street | High |
| SB12 | 73 | Dial French Cleaners / King Cleaners 2115 Surf Avenue | Moderate |
| SB13 | 22 | NYCHA Coney Island Site 1B 2001-2003 Surf Avenue | High |
| SB14 | 22 | NYCHA Coney Island Site 1B 2001-2003 Surf Avenue | High |
| SB15 | 33 | DSNY Brooklyn District 13 Garage 2012 Neptune Avenue | High |
| SB16 | 33 | DSNY Brooklyn District 13 Garage 2012 Neptune Avenue | High |

TABLE 1
Proposed Borings and Adjacent "High" and "Moderate" Risk Sites
Storm, Sanitary Sewer, and Water Mains in Coney Island Area
Brooklyn, New York
DDC Project No. CONISPH01
Work Order No. Pending

| Boring Number | Site ID# | Site Description / Address | Risk Category |
|---------------|----------|--|---------------|
| SB17 | 44 | NYCHA Carey Gardens 2822-2832 West 23rd Street | High |
| SB18 | -- | General characterization | Moderate |
| SB19 | 42 | New Dimension Auto Diagnostic, Inc. 2103 Neptune Avenue | High |
| SB20 | 32 | Sun Fuel Corp / Merlen Gas Service Station 2001 Neptune Avenue | High |
| | 33 | DSNY Brooklyn District 13 Garage 2012 Neptune Avenue | High |
| SB21 | 23 | Verizon vehicle parking lot and garage 1919 Neptune Avenue | High |
| | 35 | Al's Collision Autobody 2123 Neptune Avenue | High |
| | 32 | Sun Fuel Corp / Merlen Gas Service Station 2001 Neptune Avenue | High |
| SB22 | 62 | NYCTA Stillwell Avenue Terminal Stillwell Avenue and Neptune Avenue | High |
| | 15 | Con-Edison Co of NY Inc. Service Center 1201-1249 Neptune Avenue | High |
| SB23 | 15 | Con-Edison Co of NY Inc. Service Center 1201-1249 Neptune Avenue | High |
| | 19 | All Stars Auto Care Inc. 1109-1113 Neptune Avenue | High |
| SB24 | 19 | All Stars Auto Care Inc. 1109-1113 Neptune Avenue | High |
| | 5 | BUG Coney Island Gate Station 873 Neptune Avenue | High |
| SB25 | 50 | Historic Manufacturing Operations 2918 Stillwell Avenue | High |
| | 122 | E Designation 1301 Surf Avenue | Moderate |
| | 72 | A&T Groceries 2908 Stillwell Avenue | Moderate |
| SB26 | 64 | NYCTA - Stillwell Avenue 2901 Stillwell Avenue | High |
| | 65 | NYCTA - West end lot 2818 Stillwell Avenue | High |
| SB27 | 64 | NYCTA - Stillwell Avenue 2901 Stillwell Avenue | High |
| SB28 | 62 | NYCTA Stillwell Avenue Terminal Stillwell Avenue and Neptune Avenue | High |

TABLE 1
Proposed Borings and Adjacent "High" and "Moderate" Risk Sites
Storm, Sanitary Sewer, and Water Mains in Coney Island Area
Brooklyn, New York
DDC Project No. CONISPH01
Work Order No. Pending

| Boring Number | Site ID# | Site Description / Address | Risk Category |
|---------------|----------|--|---------------|
| SB29 | 62 | NYCTA Stillwell Avenue Terminal Stillwell Avenue and Neptune Avenue | High |
| | 64 | NYCTA - Stillwell Avenue 2901 Stillwell Avenue | High |
| | 65 | NYCTA - West end lot 2818 Stillwell Avenue | High |
| SB30 | 55 | Cee Joe Auto Inc. 2775-2777 Stillwell Avenue | Moderate |
| | 139 | Blast Auto Repair + Lube Inc. 2764 Stillwell Avenue | Moderate |
| SB31 | 72 | A&T Groceries 2908 Stillwell Avenue | Moderate |
| | 66 | Historic Parking Lot and E Designation 1416 Mermaid Avenue | High |
| | 75 | E Designation 2904 Stillwell Avenue | Moderate |
| | 27 | Jiffy Cleaners 1412 Mermaid Avenue | High |

End of Addendum No. 5

This Addendum consists of one hundred seventy two (172) pages.

ATTACH TO CONTRACT DOCUMENTS

**THE CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
INFRASTRUCTURE DIVISION
BUREAU OF DESIGN**

PROJECT ID: CONISPH2B

**FOR THE CONSTRUCTION OF STORM AND SANITARY SEWERS AND TRUNK WATER MAINS AND
APPURTENANCES IN CONEY ISLAND AREA PHASE 2B**

INCLUDING WATER MAIN WORK

Together With All Work Incidental Thereto

BOROUGH OF BROOKLYN

ADDENDUM NO. 6

DATED: April 17, 2015

This Addendum is issued for the purpose of amending the requirements of the contract documents and is hereby made part of said contract documents to the same extent as if it was originally included therein.

**BEST MANAGEMENT PRACTICE (BMP)
SPECIFICATIONS FOR SEDIMENT AND EROSION CONTROL, GRADING AND
EARTHWORK, AND LANDSCAPING FOR THE CONSTRUCTION SITES AND
WETLAND MITIGATION AND RESTORATION FOR WEST 12TH STREET OUTFALL
BOROUGH OF BROOKLYN, NY**

NO TEXT ON THIS PAGE

EROSION AND SEDIMENT CONTROL, WETLAND MITIGATION
AND RESTORATION AREA
FOR
WEST 12TH STREET OUTFALL
BOROUGH OF BROOKLYN, NY

SPECIFICATIONS FOR
CAPITAL PROJECT NUMBER CONISPH2B

September 2015
Prepared for the NYC Department of Design and Construction

By Hazen and Sawyer, P.C./AKRF, Inc.
A Joint Venture

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CONTRACT CONISPH2B

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DIVISION VIISPECIFIC PROVISIONS7.01 LOCATION OF WORK

Work under this Contract is to be performed at two sites in Coney Island, Brooklyn. The first site includes the construction of a 7'W x 5'H sewer pipe and outfall that discharges into Coney Island Creek and the second site is a wetland mitigation and restoration area for the outfall constructed at the first site.

The first site is located north of the intersection of West 12th Street and Neptune Avenue, Brooklyn, New York. The site is on property owned and regulated by the City of New York (Tax Block 7247, Lot 125).

The second site is on property owned by the New York City Department of Parks & Recreation (Tax Block 6946, Lot 900). The site is located along the east shore of Calvert Vaux Park. It is approximately 200 feet wide and 220 feet long.

7.02 WORK INCLUDED

The work under this Contract includes the erosion and sediment control measures during the construction of a new outfall and the installation of a splash pad and the restoration of at least 8,500 square feet of low marsh and high marsh wetland area, as per the mitigation plan required for capital project CONISPH2B. The project includes creating new high marsh and low marsh wetland habitat. The following descriptions of work included under this Contract are general descriptions only and shall not be construed as a complete description of the work to be performed.

A. The principal items of work include:1. Erosion and sediment control measures during construction:

This shall entail the erosion and sediment control measures during the construction of the storm sewer outfall. Specifications and plans for this work are included in this set.

2. Splash Pad Installation

This entails the construction and installation of a splash pad for the new storm sewer outfall. Specifications for this work are as included herein and in Section 5B of the New York Standards

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and Specifications for Erosion and Sediment Control, 2005 edition.

3. Site Clearing

Unless otherwise noted, all construction activities will be field directed by the Engineer. Appropriate erosion and sediment control measures shall be installed as directed and approved during site work. Site clearing entails debris removal and clearing and grubbing of existing wetland vegetation within the limits of construction, as shown on the Contract Drawings. Site clearing also includes excavation to remove the root mass of *Phragmites* and other invasive species. The Contractor shall refer to the New York City Department of Transportation (NYCDOT) Standard Highway Specifications Section 6.01 for Specifications for this task.

4. Wetland Restoration

Wetland restoration work entails excavation and fill with clean sand to the grades shown in the Contract drawings. This item also includes grading and wetland landscaping along the shoreline as shown on the Contract Documents. The mitigation site shall be landscaped as directed by the Restoration Specialist and approved by the Engineer. Cleared areas will all be replanted with emphasis on the use of native plantings, with the site layout designed to minimize the disturbance on the existing wetland areas. A goose exclusion fence and debris exclusion fence will be installed.

B. Involved Agencies and Firms

Before bidding, the contractor shall become familiar with the following involved agencies and firms and their respective responsibilities in the project:

1. New York City Department of Design and Construction (NYCDDC)

The NYCDDC completed the designs for the wetland mitigation. They will administer and inspect the Contractor's work with regard to the wetland restoration and all other aspects of the project, including managing the overall project schedule and construction sequencing. The contractor will be required to obtain all needed

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construction permits. Whenever reference is made in these specifications to "the Engineer", it means the Resident Engineer on site, hired by NYCDDC.

2. New York City Department of Environmental Protection (DEP)

This City agency will maintain the facilities where the outfall is to be constructed under this project.

3. New York State Department of Environmental Conservation (NYSDEC)

This State Agency will be issuing a tidal wetland permit authorizing work in regulated areas to be performed under this Contract. This Agency has the regulatory authority to inspect the work site in order to ensure that permit requirements are not violated and the stipulations of the Joint Permit are met.

4. AKRF and Hazen and Sawyer, P.C.

These engineering firms are the design consultants for all the work contained in these specifications. They are engaged by NYCDDC.

5. United States Army Corp of Engineers

This Federal Agency issues permits for all work within Federal jurisdiction wetlands. This agency has the regulatory authority to inspect the work site in order to ensure that permit requirements are not violated.

6. New York City Department of Parks & Recreation

New York City Department of Parks & Recreation is the City department with authority over Calvert Vaux park. This agency has the regulatory authority to inspect the work site in order to ensure that permit requirements are not violated. This City department issues permits for all work in City parkland and has the regulatory authority to inspect the work site in order to ensure that permit requirements are not violated.

7. Restoration Specialist (Construction Monitor)

The Restoration Specialist shall be retained by the Contractor. The Restoration Specialist shall also serve as the Construction Monitor for the complete outfall and splash pad installation and final site

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restoration. This individual or firm shall also focus on erosion control for the entire site, and for overseeing all work in existing wetland areas and ensuring that the work adheres to permit requirements. The Restoration Specialist is responsible for compliance with all permits. The exact powers of the Restoration Specialist (Construction Monitor) are stipulated in the wetland permit.

C. Qualifications of Contractor/Subcontractor

1. The Contractor or its proposed subcontractor shall have performed at least three (3) projects similar in scope and type within the last five years that involved the restoration and/or creation of coastal wetland systems.

To support the Contractor's contention that the Contractor or its proposed subcontractor is qualified to perform work involving the creation or restoration of coastal wetlands, the Contractor must provide the following information in a Statement of Qualifications within three (3) days upon request by the City.

Provide specific details on projects (i.e., location, size, cost, client, plant species, time of planting, etc.). Provide client contact person's name and telephone number. Describe any problems encountered during construction and corrective action taken to remedy the problem. Describe any violations issued by NYSDEC or any other regulatory agency. How were the violations resolved? Enclose copies of applicable wetland permits. Provide chronological photos recording the progress of the restoration and/or creation efforts, including preconstruction through completion. Include any required sign-offs from client and provide a list of all plants replaced on site.

2. The Contractor shall have performed at least three (3) contracts that involved the installation and maintenance of soil erosion and sediment control devices during construction of a project.

To support the Contractor's contention that he/she is qualified, the Contractor shall be able to provide the following information in a Statement of Qualifications, as detailed in the paragraph below.

Provide specific details on the projects (i.e., location, size cost, client, etc.). Provide client contact person's name and telephone number. Describe regulatory requirements of the erosion control devices. Describe any problems encountered during construction

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and operation of the devices. Discuss corrective actions taken to remedy the problem. Describe any violations issued by regulatory agencies. How were the violations resolved? Provide chronological photos recording the progress of construction and operation of the erosion control devices, including preconstruction through operation during site construction and restoration after construction.

Within three (3) days upon request by the City the Contractor shall identify a Certified Professional in Erosion and Sediment Control who will be responsible for implementation of this aspect of the project. The Contractor shall also provide a copy of the certification for the person so identified.

3. The Contractor must be able to complete and submit to DCC the Statement of Qualifications described in this Section within three (3) calendar days after requested to do so by DCC.

7.03

INSPECTION BEFORE BIDDING AND MANDATORY PRE-BID CONFERENCE

Before bidding, the Contractor shall visit the site of the work. The Contractor shall obtain all necessary information, and make his own determinations of any and all conditions which may affect in any way the performance of his work and his bid prices under these Contracts. All pertinent data and dimensions with regard to existing construction shall be verified by the Contractor.

Permission to access the site for inspection purposes prior to bidding must be requested and granted from DDC since the site is a non-public, City-owned property.

All bidders are required to attend a mandatory pre-bid conference, if one should be scheduled. Exact time and place meeting place is to be announced later.

7.04

STANDARD SEWER SPECIFICATIONS

Unless otherwise specified, all work, materials, and equipment shall conform to the applicable sections of the New York City Department of Environmental Protection Bureau of Water and Sewer Operations Standard Sewer and Water Main Specifications..

7.05

INSPECTION BY THE CITY, STATE AND FEDERAL GOVERNMENT

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The Contractor shall provide proper facilities for inspection and access to the work at all times, whenever it is in preparation and progress, for authorized representatives of the City, State and Federal Governments, the latter two in the presence of the Engineer.

7.06 EXISTING UTILITIES

All subsurface utility and structure information shown on the Contract Drawings were obtained from various plans and maps and field investigations, however, it is not guaranteed to be complete or accurate. It shall be the Contractor's responsibility to locate all such necessary utilities or structures by the digging of test pits prior to the start of construction and/or by contracting the Joint Underground Locating Service (JULS). No separate payment will be made for test pits or any other work related to locating existing utilities. During the progress of the work, the Contractor shall protect from damage any existing utilities or services within the work areas until, if required, they have been re-routed, disconnected or capped off.

7.07 PERMITS REQUIRED

The Contractor is advised that the Department of Design and Construction has filed a joint application for permit with the New York State Department of Environmental Conservation (NYSDEC), the United States Army Corps of Engineers (USACE), and the New York State Department of State (NYSDOS). No work shall commence until the above-mentioned permit has been obtained for this project. As the application is being processed, it shall be the Contractor's responsibility to obtain and update the said permit and all permits listed below:

- U.S. Army Corps of Engineers Section 404 and Nationwide Permits,
- DEC Tidal Wetlands Permit pursuant to 6NYCRR Parts 622 and 633, and water quality certification (Protection of Waters, Public Law 95-200) pursuant to the procedures of Section 401 of the Clean Water Act., and
- New York City Planning Commission Waterfront Revitalization (Coastal Zone) Consistency Determination.
- New York City Department of Parks and Recreation for work in City parkland.

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The Contractor shall obtain all necessary permits as outlined in NYCDOT Standard Specifications, Section 1.06.23.

The Contractor is responsible for performing all work in compliance with all permit requirements, including the monitoring required by the NYSDEC/USACE/DPR permits. No separate or additional payment shall be made to the Contractor for complying with the above requirements, and obtaining and updating of said permits. The cost of such work shall be deemed included in the prices bid for all contract items of work.

7.08 LAND FOR CONTRACTOR'S USE

It is the responsibility of the Contractor to acquire land for staging area and/or use as a construction equipment and material storage yard. Staging area, stock pile sites, and other storage locations shall be protected from erosion and stormwater runoff.

7.09 LICENSED SURVEYOR FOR ENGINEER'S USE

A. Work Included

The Contractor shall engage the services of a New York State licensed surveyor as approved by the Engineer and reporting directly to the Engineer to make such surveys, as-builts, soundings, cross sections or other measurements as may be required by the Engineer for restoration. Surveying services included in the item are for the sole use of the Engineer. The surveyor may be used by the Engineer to verify grades, but surveying services needed for other construction activities is the responsibility of the Contractor and is not provided under this item.

The Contractor for this Contract shall include in his total bid a per diem cost for the services performed by the Licensed Surveyor. This cost shall be shown on the Bid Schedule of Prices as Item No. BMP 7.09.

The cost proposals shall include unit prices on a per diem basis and shall include all necessary equipment, including vehicles for the Surveyors.

The cost proposals shall be submitted to the Engineer for evaluation and selection.

B. Measurement and Payment

Measurement for payment shall be on a per diem basis. One day shall consist of any eight (8) hour time period from 7:00 AM to 6:00 PM Monday through Friday plus travel time, not including holidays. The per

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diem rate shall include the services of a three man surveying crew. The Engineer shall be present during the progress of Work and the Engineer shall deem as to whether a full eight hour period had been employed in completing the Work, and as to whether the Contractor has utilized his crew at the productivity output required to complete the Work as anticipated. The surveyor will submit invoices to the Engineer, which will be forwarded to the Contractor for prompt payment. Payments shall be made for invoiced costs only, with no payment for overhead and profit.

7.10 CONSTRUCTION - SPECIAL REQUIREMENTS

A. Field Measurements

The Contractor shall take all necessary measurements in the field to determine the exact dimensions for all work and verify all pertinent data and dimensions shown on the Contract Drawings.

B. Excavated Material

Unsuitable excavated material shall be removed from the site together with all debris encountered in the excavations and disposed of at an approved facility. The costs of such removal and disposal shall be included in the unit price bid for the applicable items in this Contract.

C. Access Requirements

The Contractor is advised that he shall provide access to the sites of the work for all other Contractors and that access to the sites of the work performed under all contracts shall be closely coordinated and scheduled with all other Contractors at the various sites during the life of this Contract.

D. Noise Control

The Contractor shall implement noise control measures during construction including limits on the hours of operation and compliance with sound level standards. Those measures will comply with NYC and Federal noise requirements. The Contractor shall comply with the NYC Noise Code. No separate payment shall be made for this work; the cost thereof shall be included in the bid price for other items.

E. Dust Control

During construction, all appropriate fugitive dust control, including watering of exposed areas and using dust covers for trucks shall be

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employed. These measures include satisfying Section 1402.2-9.11 of the New York City Air Pollution Code. To prevent fugitive dust from construction activities from becoming airborne, the following measures are proposed:

- Use of water or surfactant to control dust in the construction operations and during the clearing and grading of land;
- Application of water to dirt paths, materials, stockpiles, and other surfaces that can generate airborne dust over extended periods. Construction of accessways would be built with properly sized stone or concrete equivalent over filtering material;
- Covering open-body trucks transporting materials likely to generate airborne dust at all times when in motion; and
- Prompt removal of earth or other material from paved streets where earth or other material has been deposited by trucking or earth-moving equipment, erosion by water, or other means.

No separate payment shall be made for this work; the cost thereof shall be included in the bid price for other items.

F. Erosion and Sediment Control Sequence of Construction for West 12th Street Outfall

All work shall be completed in accordance with the Contract Drawings, and upon approval of the Engineer and Restoration Specialist. All work shall be done in a manner to minimize disturbance to the natural area and existing vegetation. Stake out and receive approval from the Restoration Specialist for the limits of work before beginning any clearing.

1. Install perimeter erosion control measures including construction limit fence around the work area. If clearing is required for installation of a particular measure, all measures not requiring clearing shall be installed first. Clearing of the necessary land for installation of the particular measure may then proceed.
2. Install stabilized construction entrance. The contractor shall maintain the stabilized construction entrance to prevent the deposition of materials onto the public roadway. All materials deposited onto the public roadway shall be removed immediately.
3. Perform site clearing, grubbing, and debris removal.
4. Install approved dewatering measures to discharge below the mean lower low water line. A portable sediment tank, or approved equal, shall be used to treat dewatering effluent prior to discharge.

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Discharge location shall be in a location that will not cause erosion and must be approved by the engineer. The engineer may direct the contractor to install an approved erosion control measure such as a riprap apron for dewatering effluent if necessary to prevent erosion. Installation of such a measure will be at no additional cost and included in the price bid for all work.

5. Install turbidity curtain as shown or as approved by the engineer. Install cofferdam, or other approved method, following turbidity curtain installation. Top of cofferdam shall be above the mean higher high water line to isolate the work area from tidal influence. The work area shall contain no standing water and all work below the mean higher high water line shall be conducted within the confines of a cofferdam or other approved method. Construction materials including but not limited to debris, sediment, and fresh concrete shall be prevented from entering the waterways.
6. Install the proposed splash pad, sewer pipe, and outfall structure. Perform site grading as necessary to establish final grades of the splash pad.
7. Perform site clearing and site restoration. All disturbed areas shall be restored to existing conditions unless otherwise shown on the Outfall Plan and Profile Dredging, and as directed by the restoration specialist.
8. Once all areas have been stabilized, remove temporary perimeter erosion and sediment control measures.

G. Erosion Control and Landscaping Sequence of Construction for Wetland Mitigation and Restoration Area

All work shall be completed in accordance with the Contract Drawings and upon approval of the Engineer and Restoration Specialist. All work shall be done in a manner to minimize disturbance to the existing wetland vegetation. Stake out and receive approval from the Engineer and Restoration Specialist for the limits of work before beginning any clearing.

The contractor must receive approval for all landscaping work from the Engineer and Restoration Specialist prior to construction.

1. Prior to any demolition or soil disturbance, a pre-construction meeting shall take place with the Engineer, qualified Inspector, Contractor, and Subcontractors to review the SWPPP and sign required SWPPP certification statements.
2. At least 3 days prior to starting any earth disturbance activities or expanding into an area previously unmarked, New York One Call

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- System Inc. shall be notified for the location of existing underground utilities.
3. Install and implement all erosion and sediment control practices, including stabilized construction accessway, silt fence, and turbidity curtain.
 4. Install silt fence, as per Contract Specifications, along upland limits of disturbance.
 5. Protect existing tree within limits of disturbance by installing protective tree barrier. No tree shall be removed without the approval of the Engineer.
 6. Grade temporary access ramp prior to beginning the remainder of the grading and site work.
 7. Remove existing post and rail fence within limits of disturbance and store on site.
 8. Perform site clearing, grubbing, and debris removal within areas designated on the drawings.
 9. Perform all rough and micro grading in conformance with the grading and site plan. All excavation activities shall be conducted during periods of low tide when water elevations are below the excavation depth, which will eliminate the need for dewatering. Excavation activities shall be conducted from upland portions of the project site using a long reach track excavator or equivalent to minimize ground disturbance.
 10. Backfill the project site with clean sand, as per Contract Specifications, to the final elevations shown on the Contract Drawings.
 11. Install the debris exclusion fence.
 12. Install erosion control matting on all slopes equal or steeper than 3:1 or as indicated on drawings.
 13. Allow 4 days of tidal flushing in the project area once all grading has been completed and prior to planting.
 14. Inspect the site for settling, performing hand grading and fill to the final grades shown on the Contract Drawings. All wetland surfaces shall be finished not more than 0.10 foot above or below the final grade shown on the Contract Drawings. Upland surfaces shall be not more than 1.0 foot above or below the final grade shown on the Contract Drawings.
 15. Install all landscaping in conformance with the landscaping plans and as directed by the Restoration Specialist. Goose exclusion fence shall be installed as landscaping occurs, such that all new

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plantings are protected by goose exclusion fence at the end of each planting day.

16. Replace existing post and rail fence in-kind.
17. Excavate, haul and dispose off site all material used to construct temporary access ramp. Restore area to pre-construction grades after construction is completed. Upon removal of the temporary access ramp, excavate 0.5 feet below existing grade within the temporary access ramp footprint. Backfill the temporary access ramp footprint with clean sand to existing grade and seed with permanent seed mix as specified in the contract drawings.
18. Install permanent seed mix on all disturbed areas or as indicated on the landscaping plan.
19. Prior to final stabilization the Contractor and qualified Inspector shall complete the construction inspection for each mitigation site.
20. Once the site is completely stabilized, and only as directed by the qualified Inspector, the Contractor shall removal all erosion and sediment controls. Upon removal of the stabilized construction accessway, excavate 0.5 feet below existing grade within the stabilized construction accessway footprint. Backfill the stabilized construction accessway footprint with clean sand to existing grade and seed as specified in the Contract Drawings.

7.11 TRANSPORTATION AND HANDLING OF MATERIALS AND EQUIPMENT

A. General

1. Contractor shall make all arrangements for transportation, delivery, handling and rigging of equipment and materials required for prosecution and completion of the work.
2. Working space on the site is limited. Equipment shall not be delivered to the site until it can be moved directly to the area where it will be utilized.
3. If necessary to move stored materials and equipment during construction, the Contractor shall move or cause to be moved materials and equipment without any additional compensation.
4. The Contractor shall take all necessary provisions to prevent inadvertent deposition and spillage of excavated soils or other materials that are being transported from the project site. The Contractor must employ the use of the truck tracking pad, wheel

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washing stations or other equipment deemed necessary to prevent spillage and deposition from vehicles from other construction equipment.

B. Delivery

1. The Contractor shall arrange deliveries of products in accordance with construction schedules and in ample time to facilitate inspection prior to installation.
2. Coordinate deliveries to avoid conflict with work and conditions at the site and to accommodate the following:
 - a. Work of other Contractors.
 - b. Limitations of storage space.
 - c. Availability of equipment and personnel for handling products.
3. Do not have products delivered to project site until related Working Drawings have been approved by the Engineer.
4. Do not have products delivered to site until required storage facilities have been provided.
5. Do not have products delivered to site until the manufacturer's recommended storage instructions have been submitted and approved.
6. Have products delivered to site in manufacturer's original, unopened, labeled containers. Keep Engineer informed of delivery of all equipment to be incorporated in the work.
7. Partial deliveries of component parts of equipment shall be clearly marked to identify the equipment, to permit easy accumulation of parts and to facilitate assembly.
8. Immediately upon delivery, inspect shipments to assure:
 - a. Product complies with requirements of Contract Documents and approved submittals.
 - b. Quantities are correct.

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- c. Containers and packages are intact, labels are legible.
- d. Products are properly protected and undamaged.

C. Product Handling

- 1. The Contractor shall provide equipment and personnel necessary to handle products by methods to prevent soiling or damage to products or packaging.
- 2. Provide additional protection during handling as necessary to prevent scraping, marring or otherwise damaging products or surrounding surfaces.
- 3. Handle products by methods to prevent bending or overstressing.
- 4. Lift heavy components only at designated lifting points.
- 5. Materials and equipment shall at all times be handled in a safe manner and as recommended by manufacturer or supplier so that no damage will occur to them. Do not drop, roll or skid products off delivery vehicles. Hand carry or use suitable materials handling equipment.

D. Removing and Hauling Equipment and Materials

- 1. The Contractor shall inspect all items including all boxes, crates and packages containing equipment and materials for damage that may have occurred during shipment prior to its removal from the truck or other conveyance. Any damage shall be reported immediately to the Engineer.
- 2. The Contractor shall then carefully remove the equipment and materials from the truck or trucks on which it is shipped. The equipment and materials shall then be transported to the place of installation at the job site. The Contractor shall be liable for loss or damage to the equipment and materials that may occur while being unloaded, transported, stored or installed.
- 3. All equipment that arrives at the job site during normal working hours shall be unloaded as soon as practicable.

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7.12 PROTECTION OF MATERIALS AND EQUIPMENT AT THE SITE

The Contractor shall make every effort to minimize extended storage periods of materials and equipment at the Site by judiciously scheduling deliveries to coincide with construction needs.

Storage of any mechanical or electrical equipment out of doors at any time is absolutely prohibited regardless of the protection furnished. Storage of mechanical and electrical equipment within structures at the Site will not be permitted unless the structures are enclosed.

All mechanical equipment shall be coated, wrapped and otherwise protected from snow, rain, drippings of any sort, dust, mud, condensed water vapor, etc. during shipment, storage, and installation and until placed in service.

Should storage of mechanical equipment become necessary before it can be stored at the Site, the Contractor shall provide storage in a weatherproof warehouse.

Materials may be stored out of doors if supported above ground surface on wood runners and protected with approved, effective and durable covers.

All storage and protection of materials and equipment at the Site shall be subjected to the approval of the Engineer.

All costs for equipment protection including warehousing or other work to meet the scheduled completion date shall be deemed to be included under the Contract and no additional payment will be made.

7.13 FINAL CLEANING

A. Final Cleaning Under This Contract

1. At the completion of the work, the Contractor for this Contract shall remove all rubbish from and about the site of the work, and all temporary structures, construction signs, tools, scaffolding, materials, supplies and equipment which he or any of his subcontractors may have used in the performance of the work. The Contractor shall broom clean paved surfaces and rake clean other surfaces of grounds.
2. The Contractor shall thoroughly clean all materials, equipment and structures installed under this Contract; all marred surfaces shall be touched up to match adjacent surfaces.

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3. The Contractor shall clean all landscaped areas of all debris and any objectionable material, as determined by the Engineer, and shall remove all such debris off-site.
4. The Contractor shall remove all temporary erosion control measures and replace with final features as shown on the plans and other Contract Documents contained herein, as directed by the Engineer.

B. Cleaning Materials and Methods

The Contractor shall:

1. Use only cleaning materials recommended by manufacturer of surface to be cleaned.
2. Use each type of cleaning material on only those surfaces recommended by the cleaning material manufacturer.
3. Use only materials which will not create hazards to health or property.
4. The Contractor shall only use cleaning methods approved by the Engineer.

C. Payment for Final Cleaning

No separate payment will be made for the aforementioned work, the cost thereof shall be included in the price bid for other items of this Contract.

7.14 OSHA REQUIREMENTS

The Contractor shall comply with all applicable OSHA rules and regulations regarding hazardous materials. The Contractor's specific attention is called to OSHA Regulation 29 CFR, Part 1920.120.

7.15 NO SEPARATE PAYMENT

No separate payment shall be made for the work specified in the Specific Provisions. All costs shall be included in the various Contract items unless otherwise specified.

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7.16 BID BREAKDOWN

The Contractor shall submit a breakdown of the bid prices of this Contract within 15 days after the commencement date specified in the Notice to Proceed. The bid breakdown shall be by reference to every detailed specification section listed for the Contract Item, including physical quantities, material costs, unit costs, and installation costs, where applicable. In addition, separate amounts for the following shall be included in the bid breakdown:

Bond, Insurance and Mobilization
Final Working Drawings, Record Drawings

7.17 DETAILED WORK DESCRIPTION

Storm Sewer Outfall and Splash Pad

This shall entail the construction of a new stormwater outfall with a splash pad at the end of West 12th Street, north of Neptune Avenue in Brooklyn, New York. The new outfall and splash pad would improve water quality, provide flow velocity attenuation and erosion control prior to the release of stormwater to the Coney Island Creek.

Wetland Mitigation

The site is located in Calvert Vaux Park, just south of the Calvert Vaux Park Greenway. This wetland restoration project shall include debris removal, invasive plant removal, excavation and grading, and creation of new high marsh and low marsh habitat along the shore of Coney Island Creek.

Specification Section

Specific Provisions

7.09 Licensed Surveyor

Structures and Misc. Equipment

7.101 Work Included
7.102 Dewatering
7.107-B Rip Rap Stone/Angular Natural Field Stone

Earthwork and Grading

7.300 Work Included
7.304 Excavation

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7.307-A Grading
7.308 Fill On-Site

Landscaping and Restoration

7.400 Work Included
7.401 Landscaping for Terrestrial Zone and Wetland Zone
7.404-A Restoration Specialist (Construction Monitor)
7.404-B Erosion and Sediment Control Licensed/Certified
Professional
7.407-A Erosion Control Mat - Straw
7.411 Watering and Weeding During the Guarantee Period
7.413 Temporary Goose Exclusion Fence
7.417 Debris Exclusion Fence
7.418 Clean Sand For Restored Area
7.421 Root Barrier

Erosion and Sedimentation Control Measures

7.500 Soil Erosion and Sedimentation Control Measures
7.501 Maintenance of Erosion Control Measures
7.502 Construction Limit Fence
7.504A Silt Fence
7.509-A Stabilized Construction Entrance
7.510 Portable Sediment Tanks
7.516 Turbidity Curtain

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STRUCTURES AND EQUIPMENT

7.101 WORK INCLUDED

Under structures and equipment work, Contractor shall furnish all labor, materials and equipment and shall do all work as specified herein and as shown on the Contract Drawings, including all incidental and appurtenant work required for a complete job.

The work shall include items of work specified under the following sections:

| <u>Section No.</u> | <u>Title</u> |
|--------------------|---|
| 7.102 | Dewatering |
| 7.107-B | Rip Rap Stone/Angular Natural Field Stone |

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7.102

DEWATERING

A.

Description of Work

The Contractor shall furnish, install, operate and maintain dewatering equipment as required, for construction work as specified herein. The dewatering equipment shall include, but not be limited to, the following equipment items:

1. Pumps
2. Piping
3. Accessories
4. Wells.

B.

General Requirements

1. General Specifications - Work performed under this Section shall be in conformance with the Standard Sewer Specifications.
2. Examination of the Sites - The Contractor shall take all steps that he considers necessary to familiarize himself with the surface and subsurface conditions at the site, and shall obtain the data that is required to analyze the water and soil conditions at the site.
3. Shop Drawings - The Contractor shall submit to the Engineer for approval shop drawings and any other material required to substantiate conformance with the requirements set forth in the specifications. Shop drawings shall include a detailed plan of operations.

C.

Dewatering

1. General Information - The Contractor shall perform dewatering activities to insure that all construction is performed under dry conditions. If a well point system is proposed, the Contractor shall utilize a licensed well driller. The Contractor shall always drill down to sand or gravel layer when available and when it is below the lowest excavated invert.

The Contractor shall operate the dewatering pumps continuously, a day before and during construction until all associated work within the influence zone of the well point have been completed.

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2. Care and Disposal of Water - Care of water shall be in accordance with Section 15 - 15.25 of the Environmental Conservation Law.

Water from open cut and/or sheeted excavations, manholes, structures, trenches, or from whatever source, shall be disposed of strictly in accordance with methods approved by the Engineer.

The Contractor shall submit proposed dewatering methods to the New York State Department of Environmental Conservation for the required permits. If a well point dewatering system is proposed, the Contractor shall utilize a licensed well driller. Contractor shall contact NYSDEC a minimum of two (2) weeks in advance of dewatering system startup.

When required by the Engineer, such water shall be passed through a settling basin and tank of acceptable size and shape and equipped with an overflow. Each settling basin shall be cleaned as required and as ordered by the Engineer.

Sufficient water to flush all sewers and drains shall be provided by the Contractor when necessary. If any sewer, drain, catch basin, inlet or gutter, that receives dirty water attributable to the Site, should become filled or partially filled with sediment or debris, the Contractor shall promptly and satisfactorily remove such deposits.

D. Design Criteria

1. Provide dewatering system which will effectively reduce hydrostatic pressure and lower groundwater levels below excavation levels as necessary for safe and proper prosecution of the work and which will result in obtaining stable, substantially dry subgrade for prosecution of subsequent operations.
2. Design dewatering methods so that the effluent discharge from the sediment control measures (sump pit, sediment tank) does not impact surface water using the following protocol which was developed to monitor dewatering effluent discharge:
 - a. Monitoring of Dewatering Operations

Prior to the start of dewatering operations, a visual inspection of the installation of the sediment control measure(s) such as a dewatering sump pit and/or a portable sediment tank shall be made by the Engineer. Upon

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commencement of dewatering effluent discharge from the sediment control measures, at least three turbidity measurements of the effluent shall be conducted over a 15 minute-period using the following methodology. If the arithmetic mean of these three turbidity measurements is greater than the ambient turbidity level, all dewatering operations shall be discontinued until the Engineer is consulted regarding additional control measures.

b. Determination of Ambient Turbidity

Ambient turbidity levels of surface waters shall be determined using a Hanna Instruments HI 93703 Portable Microprocessor Turbidity Meter available from Hanna Instruments, Inc., Woonsocket, RI or Orbeco Hellige Portable Turbidity or LaMotte Portable Turbidimeter or equivalent approved by the Engineer. Ambient turbidity measurements shall be collected under dry weather conditions. Dry weather conditions are defined as no precipitation in the preceding 48 hours. A minimum of three turbidity measurements shall be collected using as follows:

- Water samples shall be collected a minimum of 20 feet upstream of the work area prior to commencement of any construction activity.
- Water samples shall be collected without disturbing stream bank or stream bed sediments.
- The turbidity measurements shall be conducted according to the instructions provided in the unit's Operational Guide which are summarized below.
- After the meter has been turned on, fill a clean cuvet up to one quarter inch from its rim with thoroughly agitated sample.
- Allow sufficient time for bubbles to escape before securing the cap.
- Wipe the outside of the cuvet thoroughly with a lint-free tissue.
- Place the cuvet into the cell of the meter.

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- Press the Read key and the LCD will display a blinking "SIP" (Sampling in Process). The turbidity value will appear after approximately 25 second.

The arithmetic means of the three dry weather upstream turbidity measurements shall be the ambient turbidity level. Turbidity shall be measured in Nephelometric Turbidity Units (NTUs).

E. Submittals

Submit the following for approval:

1. Working Drawings
 - a. Type of dewatering system proposed, showing arrangement, location and depths of proposed system, complete description of equipment and materials to be used, procedure to be followed, standby equipment, standby power supply and proposed location(s) of points of discharge of water.
 - b. Obtain approval from the Engineer and appropriate regulatory agencies prior to installation of system.

F. Job Conditions

1. Subsurface Conditions
 - a. Subsurface investigations and groundwater level determinations shall be conducted by the Contractor prior to implementation as specified herein.
2. Responsibilities
 - a. Select and install dewatering system to accomplish groundwater control as specified.
 - b. Monitor quality of discharge from dewatering system to determine if soil particles are being removed by system.
 - c. Measure to ascertain if movement is caused in adjacent areas by dewatering operations; take approved measures to minimize such movement.

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- d. Take measures to prevent damage to property.
- e. Repair as approved damage, disruption or interference resulting directly or indirectly from dewatering operations.
- f. Remove sediments from all intercepted groundwater or surface water as specified herein and approved by the Engineer and the jurisdictional agency concerned. Under no circumstances shall the Contractor directly discharge, without treatment, into the drainage channel or creek.

G. Sump Pit

The Contractor, at the direction of the Engineer shall provide a stone filled pit with perforated standpipe/nozzle wrapped with filter fabric in which intercepted groundwater is pumped to an approved location.

The size and shape of the sump pit will vary due to site conditions. The size of pump should be determined from manufacturer's specifications.

1. The standpipe shall be a perforated 12"-24" diameter corrugated metal or PVC pipe.
2. A base of 2" aggregate shall be placed in the pit to a depth of 12". After installing the standpipe, the pit surrounding the standpipe shall then be backfilled with 2" clean aggregate.
3. The standpipe shall extend 12"-18" above the lip of the pit.
4. The standpipe shall be wrapped with filter cloth before installation. If desired, 1/2" x 1/2" hardware cloth may be placed around the standpipe, prior to attaching the filter fabric. This will increase the rate of water seepage into the pipe.

H. Surface Drainage

1. Intercept and divert surface drainage away from the splash pad or other excavations, wells by use of dikes, ditches, swales, open stone lined channel, temporary diversion pipes which could be either on the surface or buried, sumps or other means. To properly

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install buried diversion pipe the contractor may be required to excavate.

2. Design surface drainage systems to prevent erosion on or off the site or unwanted water flow.
3. Remove surface drainage system when no longer required.
4. Remove debris and restore site(s) to original conditions.

I. Drainage Of Excavated Areas

1. Provide and maintain ditches of adequate size to collect surface and subsurface water and seepage which may enter excavations and divert water into sump so that it can be drained or pumped into drainage channels as approved by the Engineer and the jurisdictional agency concerned.
2. Install settling basins or other approved apparatus as necessary to reduce amount of fine particles carried by water diverted away from excavation.
3. When no longer necessary, backfill and seal drainage ditches, sumps and settling basins with approved material.

J. Execution

1. Install dewatering system as specified and with the approval of the Engineer.
2. Demonstrate by approved methods that no soil particles are present in water after 12 hours of initial pumping or draining and additionally as directed.
3. Dispose of precipitation and subsurface water away and clear of the work area. Keep excavation dry.
4. Maintain continuous and complete effectiveness of the installation.
5. Maintain water level at such elevation that no damage to structure or plant material can occur because of excessive hydrostatic pressure. In any event, maintain water level two feet minimum below bottom of subgrade until sufficient concentrate work or backfilling or both has been completed to adequately offset uplift pressures.

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K. Dewatering System Removal

1. Remove and dispose of all stone, filter fabric and piping that comprise curtain drains and/or sump pits used in dewatering in accordance with Federal, State and local regulations at a permitted site.
2. Backfill remaining space as necessary to restore surface and subsurface to its original or proposed condition in accordance with the Engineer's approval.

L. No Separate Payment

Dewatering work shall be performed by the Contractor only as directed by the Engineer. The cost for all labor, materials and equipment required for the Dewatering shall be deemed included in the bid price for other Contract Items. No separate payment shall be made for Dewatering.

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7.103 CONCRETE

(NO TEXT ON THIS PAGE)

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7.104 STEEL REINFORCEMENT

(NO TEXT ON THIS PAGE)

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7.105 WELDING

(NO TEXT ON THIS PAGE)

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7.107-B RIP-RAP STONE /ANGULAR NATURAL FIELD STONE

A. Description of Work

Under this item, the Contractor shall perform all work necessary to install rip-rap stone where directed by the Engineer, to install splash pad, and to protect the soil surface from erosive forces and/or improve the stability of soil slopes as well as water feature bottoms that are subject to seepage or have poor soil structure.

In general, rip-rap stone shall be utilized for both temporary and permanent constructed features such as erosion control features, channel side slopes and bottoms, grade sills, slope drains, grade stabilization structures, storm drains, and cut and fill slopes subject to seepage, erosion or weathering, particularly where conditions prohibit the establishment of vegetation.

Angular natural field stone shall be utilized to stabilize, reinforce or restore naturally occurring features as well as features that are intended to appear natural, such as stream side slopes, banks and bottoms, wetlands, shorelines subject to erosion, culvert inlets and outlets, outlet stilling basins and natural upland side slopes.

Rip-rap stone may be substituted with angular natural field stone as directed by the Engineer. The Contractor may use field stones excavated in the project site, contingent upon the approval of the Engineer.

B. Materials Used

Rip-Rap Stones/Angular Natural Field Stones

Stones shall be a well-graded mixture with 50% by weight larger than the specified design size. The diameter of the largest stone size in such a mixture shall be 1.5 times the d50 size with smaller sizes grading down to 1 inch. The stone size installed shall be as directed by the Engineer and as shown on the Contract Drawings.

The minimum layer thickness shall be 1.5 times the maximum stone diameter, but in no case less than 6 inches or as specified on the Contract Drawings.

Stones for rip-rap shall be hard, durable quarry materials. Stones used for natural field stones shall be hard, durable field materials and shall be dark in coloration. They shall be angular and not subject to breaking down

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when exposed to water or weathering. The specific gravity shall be at least 2.5.

Stones shall be free of decomposed stone, clay rock dust and other objectionable material. Existing stone walls and broken concrete or recycled stone shall not be used as stones. Broken concrete is not acceptable.

C. Construction Methods

Subgrade Preparation

Prepare the subgrade for stones to the required lines and grades shown on the plans. Compact any fill required in the subgrade to a density approximating that of the undisturbed material or overfill depressions with stones. Remove brush, trees, stumps and other objectionable material. Cut the subgrade sufficiently deep so that the finished grade of the stones will be at the elevation of the surrounding area. Channels shall be excavated sufficiently to allow placement of the stones in a manner such that the finished inside dimensions and grade of the stones meet design specifications.

Rip-Rap/Angular Natural Field Stone Placement

Placement of the stones shall follow immediately after placement of the filter. Place stones so that it forms a dense, well-graded mass of stone with a minimum of voids. The desired distribution of stones throughout the mass shall be obtained by selective loading at the quarry and controlled dumping during final placement. Place stones to its full thickness in one operation. Do not place stones by dumping through chutes or other methods that cause segregation of stone sizes. Be careful not to dislodge the underlying base or filter when placing the stones.

The toe of the stones shall be keyed into a stable foundation at its base as shown on the Contract Drawings. The toe shall be excavated to a depth of 2.0 feet. The design thickness of the stones shall extend a minimum of 3 feet horizontally from the slope. The finished slope shall be free of pockets of some stone or clusters of large stones. Hand placing will be required to achieve proper distribution of stone sizes to produce a relatively smooth, uniform surface. The finished grade of the stones shall blend with the surrounding area.

D. Measurement and Payment

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The quantity to be measured for payment under this Section shall be the total number of cubic yards of approved stones, measured in stockpiles, containers and/or vehicles and placed as directed by the Engineer.

The contract price per cubic yard of approved stone material placed shall be as indicated on the BID SCHEDULE OF PRICES Item No. BMP-7.107-B. The bid price shall constitute full compensation for all labor, materials, equipment and work incidental thereto, necessary to furnish, place and incorporate and all other work incidental thereto, in accordance with the plans and specifications to the satisfaction of the Engineer.

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EARTHWORK AND GRADING

7.300 Work Included

Under earthwork and grading, the Contractor shall provide all labor, material, tools and equipment necessary to complete the execution of the work in complete accordance with the Specifications and all Contract Drawings. The work shall include items of work specified under the following sections.

| <u>Section Number</u> | <u>Title</u> |
|-----------------------|--------------|
| 7.304 | Excavation |
| 7.307-A | Grading |
| 7.308 | Fill On-Site |

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7.301 DEBRIS REMOVAL AND DISPOSAL

(NO TEXT ON THIS PAGE)

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7.302

CLEARING GRUBBING AND REMOVAL

(NO TEXT ON THIS PAGE)

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7.303

TEMPORARY WOODEN TREE GUARDS

(NO TEXT ON THIS PAGE)

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7.304 EXCAVATIONA. Description of Work

The Contractor shall furnish all labor, materials, equipment and services necessary to perform all excavation as indicated on the Contract Drawings and as specified herein. Under this item, the Contractor shall also remove all plant material, including root mass and rhizomes, from Common Reed (*Phragmites australis*) and Giant Reed (*Phragmites communis*) throughout the project area and as directed by the Engineer.

B. General Requirements

1. General Specifications - Except as modified and supplemented hereinafter in the Detailed Specifications, work performed under this Section shall conform to the NYCDDC Sewer Construction General Specifications.
2. Shop Drawings - The Contractor shall submit to the Engineer for approval shop drawings and other documentation required to show conformance with the requirements set forth on the Contract Drawings and these Specifications. Shop drawings shall include, but not be limited to, the requirements for shop drawings as specified in General Specification.

C. Excavation

1. General Information –The Contractor shall excavate all materials to the established lines and grades for the construction of all facilities included in this Contract, or as shown and specified, in accordance with the requirements of NYCDDC Sewer Construction General Specification, except as otherwise specified herein. Excavation shall include removing boulders of size less than one-half cubic yard. Excavation shall also include the removal of existing buried pipelines, the plugging of those remaining sections of the pipelines and the plugging of all existing buried pipelines to be abandoned but not removed. The Contractor shall also excavate the site to such a depth as to remove all *Phragmites* plant material, including all rhizomes and root mass, as directed by the Engineer.

The limits of excavation shown on the drawings are the payline and indicate the extent of work to be performed by the Contractor. The Contractor shall furnish and install any temporary side slope

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supports, bracing, and sheet piling required to perform the excavation to the levels and surfaces indicated.

2. Excavated Materials - The Contractor shall dispose off site all excess and unsuitable materials. Boulders and stones deemed suitable for reuse shall be stockpiled on-site at a location determined by the Engineer. Excavated material containing rhizomes and root mass from Phragmites and other plants shall be removed from the site and disposed of at an approved disposal site by the Contractor.
3. Hazardous and Non-Hazardous Waste - If deemed necessary by the Engineer, soil sampling shall be performed as directed by the Engineer. Contractor shall refer to Addendum 5 of the Contract Specifications for more information related to the handling and disposal of any anticipated or unforeseen contaminated or hazardous materials.
4. Care of Water - Prior to starting the work, the Contractor shall submit to the Engineer for approval, a detailed description of the method he proposes to use to care for water during construction, including a coordinated sequence of operation for the entire project. Approval by the Engineer will not relieve the Contractor of his responsibility for the safety of the work, existing structures and adjacent property. Excavation activities below the mean high/high water line shall be conducted during periods of low tide when water elevations are below the excavation depth. Wetland excavation activities shall be conducted from upland portions of the project site using a long reach track excavator or equivalent to minimize ground disturbance.
5. Stockpiling - Sand that has been excavated may be stockpiled on site within the limits of silt fencing. Under no circumstances shall stockpiling occur in wetland areas outside the limits of silt fencing. Location of stockpiling shall be approved by the site Engineer.

D. Measurement and Payment

The quantity to be measured for payment under the pay item Excavation shall be the total number of cubic yards, measured in containers and vehicles, and the quantity to be paid for will be 75% of the yardage determined by such measurements.

The contract price per cubic yard of material excavated and disposed of off-site shall be indicated on the BID SCHEDULE OF PRICES Items No.

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BMP-7.304-A. The bid price shall constitute full compensation for all labor, materials, equipment and work incidental thereto, necessary to complete the work in accordance with the plans and specifications to the satisfaction of the Engineer.

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7.305

CRUSHED STONE

(NO TEXT ON THIS PAGE)

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7.306 TREE REMOVAL AND DISPOSAL

(NO TEXT ON THIS PAGE)

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7.307-A GRADINGA. Description of Work

The Contractor shall furnish all labor, materials, equipment and services necessary to perform all grading as indicated on the Contract Drawings and as specified herein.

B. General Requirements

1. General Specifications - Except as modified and supplemented hereinafter in the Detailed Specifications, work performed under this Section shall conform to the NYCDDC Sewer Construction General Specifications.
2. Shop Drawings - The Contractor shall submit to the Engineer for approval shop drawings and other documentation required to show conformance with the requirements set forth on the Contract Drawings and these Specifications. Shop drawings shall include, but not be limited to, the requirements for shop drawings as specified in the General Specifications.

C. Grading – The Contractor shall perform filling, compacting, and grading of the indicated areas of site, including minor cutting and filling high and low areas, and leveling such areas to elevations and within limits shown on the Contract Drawings. All work shall be performed in accordance with the applicable requirements of the NYCDDC Sewer Construction General Specifications.

Any grading below the mean higher high water (MHHW) line should be done in the dry during periods of low tide.

D. Compaction

1. Wetland Areas – Compaction shall not be done in wetland and landscaped areas.
2. Other Areas – Compaction shall only occur under the direction of the Engineer. Each layer of fill or backfill shall be compacted by a minimum of four complete passes with an approved tamping roller, pneumatic-tired roller, three-wheel power roller, or other approved compaction requirement. Compaction shall not be less than 95 percent of the maximum density modified proctor as determined by ASTM D1557, Method D.

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3. Field Control – Sufficient in place density tests shall be performed by the Contractor in order to satisfy the Engineer that the specified density is being obtained. These tests shall be made at no cost to the City and shall be made using the calibrated sand cone method (ASTM D1556) or other method as determined by the Engineer.
- E. Finished Excavation, Fills, and Embankments – All areas covered by the project, including excavated and filled sections and adjacent transition areas, shall be uniformly graded. The finished surface shall be reasonably smooth, compacted, and free from irregular surface changes. The degree of finish shall be that ordinarily obtainable from blade-grader operations. All wetland surfaces shall be finished not more than 0.10 foot above or below the final grade shown on the Contract Drawings. Surfaces upland from wetland areas shall be not more than 6 inches above or below the final grade shown on the Contract Drawings.
- F. Protection – Newly graded areas shall be protected from traffic and erosion, and any settlement or washing away that may occur from any cause, prior to acceptance, shall be repaired and grades re-established to the required elevations and slopes, at no additional expense to the City.

The Contractor shall provide temporary ground cover sufficient to restrain erosion on all disturbed areas upon which further active construction is not taking place.

- G. Measurement and Payment

The quantity to be measured for payment under the pay item Grading shall be the total number of square feet of work area graded. The contract price per square foot for grading shall be as indicated on the BID SCHEDULE OF PRICES Item No. BMP-7.307-A. The bid price shall constitute full compensation for labor, materials, equipment and work incidental thereto, necessary to complete the work in accordance with the plans and specifications to the satisfaction of the Engineer.

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7.308

FILL ON-SITE

A.

Description of Work

This work shall consist of providing and placing approved fill material where required throughout the project area only. The Contractor may use approved fill material excavated from sewer and foundation trenches and stockpiled excavated soils within project limits as long as it meets the approved definition. Reuse of onsite excavated material requires that the material be screened prior to placement as fill. The approved fill material shall be provided, placed, spread, compacted and fine graded to the elevations, lines, grades and cross-sections indicated on the drawings as directed by the Engineer.

B.

Definition

Approved fill is hereby defined as clean earth, consisting of a mixture of silt and clay. Fill material shall have a liquid limit less than or equal to 40 and a plasticity index less than or equal to 20, as determined by ASTM D4318. This mixture must be free of any roots, trees, tree stumps, leaves or other organic matter. Furthermore, this material must also be free of any metal, bricks, debris, masonry (i.e. construction debris), stones over one and one-half (1-1/2) inches in diameter and deleterious material. In addition, the fill shall have a gradation such that 100% (by weight) passes a 3" sieve, 50-100% passes a #10 sieve, 20-90% passes a #60 sieve, and 0-20% passes a #200 sieve.

Fill used in planted areas shall be clean earth, consisting of a mixture of silt, clay, and sand. No custom ("select fill") fill shall be used in area which are to be planted.

C.

Measurement and Payment

There will be no separate or additional payment made for the aforementioned work. The cost for this work shall be deemed included in the price bid for all items of work.

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LANDSCAPING AND RESTORATION WORK

7.400 Work Included

Under landscaping and restoration work, the Contractor shall provide labor, materials, tools and equipment necessary to complete the execution of the work in complete accordance with the Specifications and all Contract Drawings. The work shall include items of work specified under the following sections.

| <u>Section Number</u> | <u>Title</u> |
|-----------------------|--|
| 7.401 | Landscaping for Terrestrial Zone and Wetland Zone |
| 7.404-A | Restoration Specialist (Construction Monitor) |
| 7.404-B | Erosion and Sediment Control Licensed/Certified Professional |
| 7.407-A | Erosion Control Mat – Straw |
| 7.411 | Watering and Weeding During the Guarantee Period |
| 7.413 | Temporary Goose Exclusion Fence |
| 7.417 | Debris Exclusion Fence |
| 7.418 | Clean Sand For Restoration Area |
| 7.421 | Root Barrier |

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7.401 LANDSCAPING FOR TERRESTRIAL ZONE AND WETLAND ZONE

A. Work Included

Under these items, the Contractor shall furnish all labor, materials, equipment and services necessary for the proper execution of all landscaping work, as specified herein and as shown on the Contract Drawings, including all incidental and appurtenant work required for a complete job. In addition, the contractor will also furnish and deliver Permanent Seed Mix as directed by the Engineer.

B. General Requirements

1. Reference Standards

- a. American Association of Nurserymen, Inc., (American National Standards Institute) Nursery Stock (Z60.1)
- b. American Joint Committee on Horticultural Nomenclature Standardized Plant Names.
- c. A Checklist of New York State Plants, Contributions to a Flora of New York State, Checklist III, Bulletin #458, Richard S. Mitchell, State Botanist, New York State Museum, 1986.
- d. Gleason, The Late Henry A. and Arthur Cronquist. 1991. Manual of the Vascular Plants of Northeastern United States and Adjacent Canada, 2nd ed, New York Botanical Garden.
- e. Mitchell, Richard S. and Gordon C. Tucker. 1997. A Revised Checklist of New York State Plants, Bull. #490, New York State Museum.

C. Quality Assurance

1. Source Quality Control

- a. The preferred source for plant material is the Greenbelt Native Plant Center, a facility of the New York City Department of Parks and Recreation. If private nursery sources are used, they must be within a 250-mile radius of the planting site. All specified plants shall have also been

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grown in the same USDA climatic zone as that of the planting site.

All seed and original stock material for herbaceous plants shall have been collected from locally adapted ecotypes within a one-hundred mile radius of the project site. Plant material may have to be contract grown in order to meet this requirement.

No substitutions of specified plants will be accepted without prior approval of the Engineer or his/her duly authorized representative.

- b. General. Ship landscape material with certificates of inspection when required by governmental authorities. Comply with governing regulations applicable to landscape material.
 - c. Packaged Material. Package standard products with manufacturer's certified analysis. For other material, such as topsoil, provide analysis by recognized laboratory made in accordance with methods established by the Association of Official Agricultural Chemists, wherever applicable, or as further specified.
 - d. All seed shall be interagency certified under the auspices of a State Seed Improvement Cooperative and must bear their seals of certification on bag. Permanent seed shall be 75% Pure Live Seed minimum. Weed content of seed lots shall not exceed 0.25 percent. All seed shall be free of noxious weeds. Provide fresh, clean, new-crop seed complying with the tolerance for purity and germination established by the Official Seed Analysts of North America. Provide seed of the species, proportions and minimum percentages of purity, germination, and maximum percentage of weed seed.
 - e. Comply with governing regulations applicable to wetland and landscape materials including certification that tidal wetland plants have been acclimated to 15 to 25 parts per thousand salinity for a period of not less than two (2) weeks prior to installation.
2. Trees and plants shall be specified as in the Contract Documents. Nurseries which collect plants from the wild shall be rejected. No substitutions shall be permitted, except as authorized in writing by

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Engineer. If specified landscape material is not obtainable, submit proof of non-availability to Engineer, together with proposal for use of equivalent material. All plants specified within this Contract are native to the State of New York. Species native to this region, but not listed as native within *A Checklist of New York State Plants*, may be accepted on a case-by-case basis.

3. The Contractor shall provide trees and plants of quantity, size, genus, species and variety shown and scheduled in the Contract Documents for landscape work and complying with recommendations and requirements of ANSI Z60.1 "American Standard for Nursery Stock" and the Manual of Vascular Plants of the Northeastern United States and Adjacent Canada. The Contractor shall provide healthy, vigorous stock, grown in a recognized nursery in accordance with good horticultural practice and free of disease, insects, eggs, larvae and defects such as knots, sun-scald, injuries abrasions, or disfigurement. Contractor shall submit certification that wetland plants are procured at least six months prior to scheduled planting.
4. All plants furnished under this Item shall be true to name. Plant names shall agree with the nomenclature of Standardized Plant Names as adopted by the American Joint Committee on Horticultural Nomenclature, 1942 Edition. Size and grading shall conform to those of the American Association of Nurserymen. All wetland plants shall come from Jamaica Bay stock or within a 250-mile radius of Coney Island, Brooklyn.
5. Certified analyses by a recognized laboratory shall be submitted by the Contractor for approval by the Engineer for topsoil before delivery to the site. Analyses must include mechanical analysis, magnesium, nitrogen, potassium, and phosphorus levels, soluble salts, pH and organic matter. Standards and formatting for clean sand analyses shall be as specified under DETAILED SPECIFICATIONS FOR CLEAN SAND FOR RESTORED AREA.
6. Inspection:
 - a. Plant materials shall be inspected by the Engineer upon arrival at the job site and prior to planting. Any materials not in compliance with specifications shall not be accepted and shall be removed from the job site immediately.

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- c. The Engineer retains the right to further inspect all plant material, and to reject unsatisfactory or defective material at any time during progress of work. The Contractor shall remove rejected plant material immediately from project site.
- d. Tagged samples of plant materials shall be delivered to the site and planted in locations approved by the Engineer. These tagged samples shall be maintained, protected and used as standards for comparison with the plants furnished for the work.
- e. The Contractor shall be responsible for all certificates of inspection of plant material that may be required by Federal, State or other authorities to accompany each shipment of plants. On arrival, the certificates shall be filed with the Engineer. The Engineer shall receive a copy of each shipping invoice immediately after the delivery has arrived at the job site.

D. Submittals

The General Contractor shall submit the following information (as listed in 1. through 4.) for approval within ten working days following the date in the Notice to Commence Work:

- 1. Subcontractors. Subcontractors proposed for landscaping and associated restoration and site work must be approved by the Engineer prior to start of work. The Contractor shall submit at least three (3) alternative Subcontractors to the Engineer for review and approval. The Subcontractors proposed shall be evaluated on the following criteria, prioritized in descending order:
 - a. The Contractor shall submit a minimum of three (3) projects similar in scope and type within the last five years whereby the Contractor was directly responsible for the installation, restoration and maintenance of native habitats and wetlands. References and xerographic reproductions of photographs of the projects shall be submitted. Projects shall not be more than five years old. Provide client contact person's name and telephone number. Describe any problems encountered during construction and corrective action taken to remedy the problem. Describe any violations issued by NYSDEC or any other regulatory agency. How were the violations resolved. Enclose copies

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of applicable wetland permits. Provide chronological photos recording the progress of the restoration and/or creation efforts, including preconstruction through completion. Include any required sign-offs from client and provide a list of all plants replaced on site.

- b. Demonstrated capacity to accomplish the work in the required time including qualification of experienced foreman and key personnel.
 - c. Experience in digging and transplanting field stock.
 - d. Experience with agencies, such as the Department of Parks and Recreation, Central Park Conservancy, the Botanic Gardens, HPD and/or Port Authority.
 - e. Experience with State or Federal Agencies, particularly with experience in conducting mitigation pursuant to USACE or NYSDEC requirements.
 - f. Wetland/landscape contractor shall have performed at least three (3) contracts that involved the installation and maintenance of soil erosion and sediment control devices during construction of the project. The projects shall be at least three (3) years old and successful.
 - g. Other references or experience deemed appropriate to obtaining approval.
2. List of growers/nurseries.
 3. Certified arborist or nurseryman.
 4. List of all materials and certificates specified within this Item.

The General Contractor shall submit the following information (as listed in 5 through 8) prior to construction:

5. Certificates:
 - a. All necessary State, Federal and other inspection certificates as may be required by law.

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- b. Two (2) copies to the Engineer of manufacturers' or vendors' certified analysis for soil treatments and fertilizer materials shall be submitted with samples.
 - c. Certification and guarantee that all plant material is true to name and in conformance with these specifications.
 - d. The invoice or a written statement showing the size and grade of materials received or shipped, together with the source and health of the plant material and verification that balled and burlapped plants were sprayed with an anti-desiccant within 48 hours prior to digging. No plants shall be accepted that have been collected from property other than that owned or leased by a nursery.
 - e. Certification that all herbaceous plant material was grown from seed or stock collected from locally adapted ecotypes within a one-hundred mile radius of the project site.
 - f. Certificates from seed vendors: certified statement for each seed mixture required, stating botanical and common name, percentage by weight and percentages of purity, germination, and weed seed for each species.
6. Planting Schedule. Submit proposed planting schedule within one month of official Notice to Commence Work, indicating dates for each type of landscape work during normal seasons and as specified in the Contract for such work in area of site. Included shall be a schedule of nursery visits for the Restoration Specialist to tag plant material. Correlate from date of substantial completion. Once accepted, revise dates only as approved in writing by the Engineer, after documentation of reasons for delays.
7. List of equipment, methods of operation, and maintenance plan, including methods for protection of existing vegetation.
8. Manufacturer's Literature. Manufacturer's literature for all materials furnished shall be submitted with samples of same.
9. The Contractor is required to perform a separate germination test on the seed mixes to be used on this project prior to submitting the seed mix and supplier. The results of the germination test shall be included in with the information submitted to the Engineer for review and acceptance. The Contractor is advised that these tests can run two-months or more and should be prepared to have these

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tests completed in sufficient time for the next seeding season. Seed shall conform to all applicable state and federal regulations and to test provisions of the Association of Official Seed Analysts. There shall be no exceptions.

10. The Landscape Subcontractor shall submit a watering and weeding plan and maintenance schedule prior to the installation of plant material, to be approved by the Engineer with consultation from the Restoration Specialist. The plan shall include proposed methods of watering and weeding, including but not limited to tree gators (bags), sprinklers, drip hoses, irrigation, tanker vehicles and hand watering, etc., as well as manual weeding and weeding tools. No additional payment will be made for watering and weeding during installation and during the Maintenance Guarantee Period for a period of three (3) years or as required by the permits.

The approved plan and schedule do not relieve the Contractor in any way from any aspect of the replacement of dead plant material. The Landscape Subcontractor may alter the maintenance schedule based on weather and field conditions.

E. Product Delivery, Storage and Handling

1. Delivery of Materials:
 - a. Packaged Materials. Deliver packaged materials in unopened bags or containers, each bearing the name, warranty, and trademark of the producer and the composition, analysis and the weight of the material. Contractor shall notify the Engineer 48 hours in advance of delivery of all plant material.
 - b. Plants. The Contractor shall provide plants of the stock type and quantities shown on the Contract Drawings. Do not prune prior to delivery unless otherwise approved by the Engineer. Do not bend or bind-tie plants in such a manner as to damage, break, or destroy natural shape. Provide protective covering during delivery, and insure that all plant material is handled properly and is not dropped.
 - c. All plant materials shall be protected from drying out and from wind damage during delivery.
 - d. The Contractor shall deliver plants after preparations for planting have been completed and plant immediately. If

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planting is delayed more than 6 hours after delivery, set plants in shade, protect from wind, weather and mechanical damage, and keep roots moist by covering with mulch, burlap or other acceptable means of retaining moisture. Water as necessary.

- e. The Contractor shall not remove container grown stock from container until planting time.
- f. Material should be planted in the ground immediately after delivery to site. Plants should be covered with damp-not wet-leaf compost while awaiting ground installation. Do not allow the plants to dry out or freeze.
- g. All materials shall be stored in upland areas that are protected from weather.
- i. Seeding:
 - 1. Seed shall be clean and fresh and delivered to the site in the original, unopened bags showing the net weight, composition of mix, suppliers name and guarantee of analysis. Seed shall be delivered and stored in original unopened packages, kept dry, and not opened until needed for use. Damaged or faulty packages shall not be used and will be rejected. Seed shall have been harvested for planting in the current growing season, and shall have been packed within the last 9 months.
 - 2. All seed shall be interagency certified under the auspices of a State Seed Improvement Cooperative and shall bear their seals of certification on each 50 pound bag. Permanent seed shall be 75% pure live seed minimum.
 - 3. Seed materials will be inspected by the Engineer upon arrival at the job site and prior to planting. Any materials not in compliance with specifications will not be accepted and shall be removed from the job site immediately.
 - 4. All seed materials shall be protected from drying out and from wind damage during delivery.

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5. Furnish seed in sealed, standard containers with germination and purity percentages clearly labeled.
 - j. Plant Material: Provide healthy, vigorous growing specimens exhibiting uniform growth and form characteristic of their species that satisfy the project specifications. Plants shall be free of chlorosis, yellowing, blemished or damaged parts.
 - k. Label all flats of plants and all separate plants with a securely attached waterproof tag, bearing legible designation of botanical and common name, written with waterproof ink.
2. Storage of Materials
 - a. Store and cover materials to prevent deterioration. Remove packaged materials which have become wet or show deterioration or water marks from the site and replace at no additional cost to the City.
 - b. Seed that is wet or moldy or that has been otherwise damaged in transit or storage shall be replaced at no additional cost to the City.

F. Job Conditions

Terrestrial and Wetland Buffer Zone Plantings: Unless otherwise directed by the Engineer, evergreen material shall be planted and transplanted from April 1st to May 15th and from September 1st to October 15th. Deciduous material shall be planted and transplanted from March 1st to May 30th and from October 15th to December 1st. Container-grown herbaceous material shall be planted and transplanted from March 1st to May 30th and from August 15th to September 15th (SEE PLANTING SCHEDULE). Perform actual planting when conditions are suitable. No plant material shall be planted when the ground is frozen or in excessively moist condition. All material labeled as fall planting hazard shall be installed during the spring only. Notify the Engineer before proceeding with any planting operations.

Wetland Plantings:

1. Time of Planting and Transplanting. All wetland plantings shall be installed in time frames indicated under the above Terrestrial and Wetland Buffer Zone Planting section. Perform actual planting

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when conditions are suitable. No plant material shall be planted when the ground is frozen or in excessively moist condition. Notify the Engineer before proceeding with any planting operations.

2. The Contractor shall proceed with and complete landscape work as rapidly as portions of site become available, working within seasonal limitations for each kind of landscape work required.
3. Utilities. The Contractor shall determine location of underground utilities and perform work in a manner which will avoid possible damage. Hand excavate, as required. Maintain grade stakes set by others until removal is approved by the Engineer.
4. Excavation. When conditions detrimental to plant growth are encountered, such as rubble fill, adverse draining conditions, or obstructions, notify the Engineer.
5. Preservation and Restoration of Existing Trees and Shrubs.
 - a. In order to avoid surface and subsurface root damage and soil compaction, the Contractor shall not be permitted to stockpile materials of any nature under the drip line of existing trees and shrubs. This directive shall apply to all areas within or outside the Contract limit line.
 - b. The Contractor shall assume the responsibility for any remedial work such as root and top pruning required and/or necessary to prevent loss of plant material when this article is violated or when trees or shrubs are injured by construction equipment.
 - c. Compensatory pruning and fertilizing of existing trees and shrubs shall be performed to compensate for damage of roots incurred. Fertilize in areas around undamaged roots only and not adjacent to the trunk or main stem. Fertilizer shall be applied in the fall unless otherwise approved by Engineer.
 - d. Tree pruning shall be performed in accordance with NYCDOT Standard Highway Specification Section 4.18.
 - e. No separate payment will be made for fertilizing and pruning of trees and shrubs in stockpile areas or when trees or shrubs are injured by construction equipment, but the

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cost thereof will be deemed to be included in the various prices bid for the items for which such pruning and fertilizing are necessary.

- f. No existing trees, shrubs or herbaceous plants shall be removed, except as specifically required by this Contract or as specified on Contract Documents, or as specifically approved in writing by the Engineer.
- g. Any areas or items of existing landscape which are removed or damaged shall be replaced by the Contractor at no additional cost to the City. The Contractor shall match the existing condition prior to damage or as directed by the Engineer.
- h. All existing landscape features including trees, shrubs, perennial, meadows, lawns, wetlands, paving, walls, stairs, etc. shall be protected by the Contractor, utilizing methods approved by the Engineer prior to start of work.

G. Guarantee

- 1. Landscape Guarantee and Replacements
 - a. Guarantee. All landscaping work shall have a replacement guarantee for a period of three (3) years or as required by the permits beginning at the date of acceptance of the Landscaping work or the date of substantial completion, whichever is later, and shall be considered as included under monies shown within the guarantee provisions.
 - b. Operations. The Contractor shall, for a period of three (3) years or as required by the permits, cultivate, weed, prune, and water all herbaceous plants and permanent seeded areas under this Contract, to the satisfaction of the Engineer. The Contractor shall replace, according to the original specifications, any plant material which is dead or in a dying condition at the request of the Engineer. The Engineer shall be the sole judge as to the condition of the plants. The guarantee and maintenance applies to all planted and grassed areas, meadows, paved and other landscaped areas. All weeding, done manually or with herbicide, shall be performed under the supervision and with the approval of the Restoration Specialist. All

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herbicide material and application methods used shall be approved by the Engineer prior to application.

- c. Replacement. Any plant material that is dead or not showing satisfactory growth, as determined by the Engineer, shall be promptly removed and replaced by the Contractor during normal planting season specified in Section 7.401.F. Initial replacement of dead material and the repair of bare areas will take place one year following the acceptance of plant material. The replacement shall be of the same variety, size and character as specified for the original planting. Unless a written waiver of this clause is issued, under the terms of the guarantee, replacement plants shall be chosen only by the Engineer.

At the end of the guarantee period, and upon written request, an inspection will be made by the Engineer. If mortality exceeds ten percent or if bare areas occur, the Contractor shall replace plant material as necessary.

H. Materials

1. Clean Sand

- a. Sand from site stripping shall be used if the material meets specifications listed in 7.418. A material test(s) shall be made at Contractor's expense to determine if the specifications for all the tests listed in (7.418) have been met. A material test shall be required and shall serve as a representative analysis for every 200 cubic yards of material utilized.
- b. Additional clean sand shall be furnished from sources off the Contract site. Material shall comply with the requirements of Specification section 7.418.

2. Fertilizer

Fertilizer shall be provided as indicated on the Contract Drawings: Osmocote, granular, slow-release in the specified time frame releases and analyses. Fertilizer shall be furnished in standard containers, with name, weight and guarantee analysis of contents clearly marked thereon. Appropriate containers to disperse specified amounts of fertilizer into planting holes shall be supplied and used by the Contractor.

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3. Mycorrhizal Inoculants
 - a. Mycorrhizal inoculants shall not be used.

4. Plant Material
 - a. The Contractor shall furnish all plant material shown. Plant material must be true to name and size and conform with the following standards:
 - i. American Joint Committee on Horticultural Nomenclature, Standardized Plant Names (Published by Mount Pleasant Press J. Horace McFarland Company, Harrisburg, PA.).
 - ii. American Association of Nurseryman, "Horticultural Standards" (Published by American Association of Nurserymen, Inc., 635-636 Southern Building, Washington, D.C.).
 - b. Nursery-grown plants shall mean plants propagated by seed, division, tissue culture or cloned from existing stock at a nursery, which are healthy, vigorous plants, cultivated in accordance with sound horticultural practice. All plants shall be nursery grown unless collected from natural areas owned or leased for that purpose by the nursery. All plants shall have been grown under the same climatic conditions as those of the planting site. All herbaceous plants shall come from seeds or stock collected within a one-hundred mile radius of the project site. Only those nurseries within a 250-mile radius of the planting site will be accepted as plant sources. In some cases plant material may be obtained outside the 250-mile radius on a case-by-case basis.
 - c. All plants shall be freshly dug; neither heeled-in nor plants from cold storage will be accepted. All plants shall have been transplanted or root pruned at least once in the past three years.
 - d. All plants shall conform to the measurements specified in the plant list on the Contract Drawings. All plants shall be typical of their species and shall have a normal, healthy habit of growth and be of first quality, sound, vigorous, well-branched and densely foliated. Plants that meet the requirements specified in the plant list, but that do not

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possess a normal balance between height and spread will not be accepted. No damaged or diseased plants will be accepted.

5. Mulch

a. Mulch shall not be used.

6. Compost

a. Compost shall not be used.

7. Topsoil Mix

a. Topsoil shall not be used.

8. Temporary Seed Mixtures

Soil stockpiles and cleared and graded areas shall receive oat seed (*avena sativa*) for temporary stabilization as required during the spring and summer months.

Temporary seeding shall be oat seed (*Avena sativa*) at a rate of 30 lbs per acre or 0.7 lbs per 1,000 sq. ft. If area is seeded during months of September through November, certified "Aroostook" winter rye (cereal rye) shall be used at a rate of 50 lbs per acre or 1.25 lbs per 1,000 sq. ft.

9. Permanent Seed Mixture

a. Seed mixture shall be as specified in the Contract Drawings unless otherwise directed by the Engineer.

Nurse/Cover seed for the permanent seed mixture shall consist of oats (*Avena sativa*) during spring seeding season and certified "Aroostook" winter rye (cereal rye) during fall seeding season. Nurse/cover seed shall be added to the permanent seed mix at a rate of 15 lbs per acre or 0.35 lbs per 1,000 sq. ft..

Lawn Seed Mix

| Common Name | Scientific Name | Percentage |
|---------------------------|-------------------------------------|------------|
| Predator Hard Fescue | <i>Festuca rubra ssp. commutata</i> | 33.3 |
| Shadow II Chewings Fescue | <i>Fistula rubra commutate</i> | 33.3 |
| Blacksheep Sheep's Fescue | <i>Festuca ovina</i> | 33.3 |

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10. Mulch Binder

Mulch binder shall be a cellulose or non-asphaltic emulsion, natural gum binder blended with gelling or hardening agents with wood fiber mulch added for improved stability. Terra-tack, as manufactured by Reinco, Inc., Hydrobond by JRM Chemical, Inc, Dustout by DustoutUS, or equivalent as approved by the engineer, shall be used.

11. Erosion Control Mat (Blanket)

The erosion control fabric used in planted areas shown on the Contract Drawings shall conform to Detailed Specification 7.407-a- Erosion Control Mat - Straw.

I. Execution

Installation/Application/Performance For Terrestrial and Wetland Buffer Zone Plants

1. Workmanship. The Contractor shall complete all work in the best manner, so that the work as a whole is of uniform quality and appearance. The Contractor shall conform to the requirements specified hereafter.
2. Preparation.
 - a. Areas described and shown on plans shall be rough graded with clean sand to (maximum) four (4) inches below the finished surface, fine graded with clean sand, prepared for planting and landscaped.
 - b. Subgrade shall be kept free of masonry, concrete, metal waste materials, and debris.
 - c. Remove stones over 1-1/2 inches in any dimension, as well as sticks, rubbish and other extraneous matter.
 - c. The planting beds and pits shall be worked up well, and shall be free of other vegetation and large clods of soil.
 - e. Apply fertilizer at a rate of 30 grams per hole during planting operations. "Pre-fertilized" plant stock shall not be considered sufficiently fertilized. Granular fertilizer must be placed in each hole.

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3. Delivery: Plants shall be packed, transported, and handled with utmost care to insure adequate protection against injury. When transported in closed vehicles, plants shall receive adequate ventilation to prevent sweating. When transported in open vehicles, plants shall be protected by tarpaulins or other suitable cover material. All bare root plants shall be adequately protected from drying out and immediately after inspection shall be heeled in moist soil. Until planted, all material shall be properly maintained and kept adequately moist, to the satisfaction of the Engineer.
4. Inspection: Inspection may be made before digging if the Engineer directs, but no plant material shall be planted by the Contractor until inspected by the Engineer at the site of the work. Plant material will be rejected if delivered with broken or damaged roots, or if damaged on site by rough handling. All rejected material shall be immediately removed from the site and replaced with acceptable material at no additional cost to the City. Final inspection shall be made upon completion of the Contract.
5. Installation.
 - a. Planting Operations.
 1. Layout: All plants shall be laid out in random and naturalistic arrangements, as specified in the Contract Drawings unless otherwise directed by the Engineer or Restoration Specialist. All plant and planting area locations shall be staked prior to planting by the Engineer. Place no plantings within two (2) feet of pavements or structures, unless otherwise indicated.
 2. Loosen sand to a depth of six (6) inches. Loosen sand with rototiller, backhoe or discer. The sand-loosening operation shall be conducted in such a way as to back its way out of the site. After this, no more heavy machinery shall be allowed on the planting beds.
 3. Rototill/cultivate soils to a depth equal to the depth of the root ball and two times the diameter of the root ball. Set the plants on the undisturbed solid ground in the center of the area.

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4. Obstructions Below Ground: Remove any rock, rubble, masonry, concrete, metal, stones over one inch or other underground obstructions to the depth necessary to permit proper planting.
5. Disposal: Remove and dispose of all excess excavations and unsuitable materials. Dispose in accordance with all local laws and regulations at Contractor's cost.
6. Plant Beds: All plant material shall be planted in clean sand.
7. Bare root material shall be adequately protected from drying out and immediately heeled in after inspection. The bundles of heeled-in plants shall be set upright on the ground, covered with mulch, and kept adequately moist until the time of installation. Until the time of planting, all plant material shall be stored in an approved location, securely fenced and maintained, to the satisfaction of the Engineer, at no additional cost to the City. All plants not planted immediately shall be watered as necessary to maintain optimal health until planting.
8. Setting Plants: Plant all plants to the same depth as their place of growth, unless otherwise directed. Center the plants in their planting pits. Set in the natural upright position at such a level that, after settlement, a normal or natural relationship of the crown of the plant with the ground surface shall be established. Be careful not to exert any pressure that will damage any portion of the plant.
9. Avoid compacting the sand. Do not leave plants exposed to sun or wind prior to planting. Take special care to avoid desiccation of fibrous-rooted plants.
10. The Contractor shall be liable for any damage to property caused by planting operations and the Contractor shall, without any additional cost, restore to original condition or replace all trees, plant beds, lawns, meadows and all construction disturbed or damaged in performing the work of this Contract.

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6. Method of Work. Submit a list of proposed methods of execution of work under this section for review by the Engineer when proposed methods are different from, or supplementary to, those specified herein.

J. Temporary Seed

1. Soil stockpiles shall be seeded with a temporary seed mixture if they will be in place for greater than 30 days. Cleared and graded areas shall also be seeded with a temporary seed mixture to temporarily stabilize them, if they will not be landscaped or planted (final) for more than 30 days. A temporary seed mixture shall be used to stabilize stockpiles and portions of the site where construction activities have temporarily or permanently ceased no more than 7 days after the construction activity in that portion of the site has temporarily or permanently ceased. This requirement does not apply if earth-disturbing activities will be resumed within fourteen (14) days.
2. Seed mixture – Temporary seeding shall be oat seed (*Avena sativa*) at a rate of 30 lbs per acre or 0.7 lbs per 1,000 sq. ft. If area is seeded during months of September through November, certified "Aroostook" winter rye (cereal rye) shall be used at a rate of 50 lbs per acre or 1.25 lbs per 1,000 sq. ft.
3. If temporary seeding is not made within 24 hours of construction/disturbance, the soil must be scarified prior to seeding.
4. Method of seeding – seed shall be evenly applied with broadcast seeder, drill or cultipack seeder.
5. If temporary seeding is made under favorable soil and site conditions during the optimum seeding dates (April 1 – June 1 or September 1 – October 15) mulch is not required. Any temporary seeding outside of those dates shall be hydroseeded with a mulch binder. Binder shall be a cellulose or non-asphaltic emulsion, natural gum binder blended with gelling or hardening agents. A wood fiber mulch shall also be added to the binder for improved stability. Terra-tack, as manufactured by Reinco, Inc., Hydrobond by JRM Chemical, Inc, Dustout by DustoutUS, or equivalent as approved by the engineer, shall be used. Alternatively, the temporarily seeded area can be mulched with a straw of oat or wheat stalks (not hay) applied at a rate of 2 tons per acre (100 -

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200 bales / acre) uniformly distributed over the sown seeds and held in place through the use of a straw crimper.

6. Any area with fail to establish vegetative cover adequate to prevent rill erosion will be reseeded as soon as such areas are identified.

K.

Permanent Seed

1. Seed materials shall be inspected by the Engineer upon arrival at the job site and prior to planting. Any materials not in compliance with specifications shall not be accepted and shall be removed from the job site immediately.
2. All seed materials shall be protected from drying out and from wind damage during delivery.
3. All areas shown to receive seed on Contract Drawings and all areas which are disturbed and not indicated to be planted or paved shall be seeded.
4. Seedbed Preparation – Scarify all compacted areas and remove all debris and obstacles such as rocks and stumps.
5. Do not broadcast seed by mechanical application when the wind velocity is such as to prevent uniform seed distribution.
6. Time of Seeding – Permanent seeding shall be done within 15 days of final construction activities. Optimum seeding times are in the spring from April 1 – June 1 and in fall from September 1 – October 15. If construction is completed during mid-summer, permanent seeding may be done if watering will be provided.
7. Method of Seeding – Seed shall be broadcast by hand or mechanically using a drop-hopper. Seeds shall be blended thoroughly with a sand filler and uniformly broadcast over the entire area then gently hand raked 1/8 to 1/4 inch into the soil.
8. Following the seeding operation, 10-10-10 fast release fertilizer shall be broadcast at a rate of 400 lbs/acre throughout the seeded area by hand or mechanically using a cyclone broadcaster. Seed shall be watered as recommended by the seed manufacturer to achieve specified growth coverage.
9. Seeded areas shall be covered with ECS-1B single net straw biodegradable rolled erosion control product furnished by East Coast Erosion Blankets, 443 Bricker Road, Berryville, PA 19056,

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(800) 582-4005 or approved equal mat. Alternatively mulching straw of oat or wheat stalks (not hay) shall be applied at a rate of 2 tons per acre (100 - 200 bales / acre) uniformly distributed over the sown seeds and held in place through the use of a straw crimper.

10. Seeding shall be deemed acceptable when 85% coverage of the seeded area with the seeded species has been achieved. Any area not meeting this requirement shall be reseeded with the original seed mix.
11. Areas seeded with temporary cover grass shall be rototilled and/or harrowed prior to seeding with permanent seed mix during the allowed time period.

L. Final Acceptance

Plants must be thriving. Planting beds must be free of invasive nonnative plant species. Paving/landscape interface must be a smooth, crafted transition free from defects such as gaps, sharp edges or sudden level changes.

M. Final Cleanup

At time of final inspection of work, and before final acceptance, clean any paved areas that are dirty or stained due to work of this Section by sweeping or washing, and remove any defacements or stains. Remove construction equipment, excess materials and tools. Remove from site any debris and dispose of off-site, in accordance with all local laws, and at the Contractor's expense. The Contractor shall also cut all perimeter grass and weeds before final acceptance.

N. Wetland Plantings:

1. Installation

The Contractor shall complete all work in the best manner, so that the work as a whole is of uniform quality and appearance. The Contractor shall conform to the requirements specified hereafter.

- a. Wetland areas to be planted shall be allowed to flush with incoming tidal waters for a minimum period of 4 days to allow clean sand fill to equilibriate.

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- b. At the elevations described and shown on the plans, the areas shall be fine graded, prepared for planting and landscaped.
 - c. Subgrade shall be kept free of waste material and debris. Subgrade shall be compacted prior to topsoil application at the Engineer's direction.
 - d. Remove stones over 1-1/2 inches in any dimension, as well as sticks, rubbish and other extraneous matter.
 - e. The planting areas shall be worked up well, and shall be free of other vegetation and large clods of soil.
 - f. Install erosion control mat where specified on the Contract Drawings.
 - g. Apply fertilizer at rate specified in Contract Drawings during planting and seeding operations.
2. Erosion Control Mat
- a. Center mat in the bottom of the wetland area and anchor the erosion control mat in a minimum 8" x 8" slot using five evenly spaced staples. Unroll matting carefully in the direction of water flow, being careful to place matting loosely and in full contact with the soil.
 - b. Overlap matting edges approximately 4" with downstream edges over upstream edges.
 - c. Staple matting using approximately 3 staples per square yard.
 - d. Overlap matting ends 6" in a minimum 8" x 8" check slot, upper matting over lower matting and staple using five evenly spaced staples.
 - e. Cut excess matting with scissors and anchor in a minimum 8" x 8" check slot with five evenly spaced staples.
 - f. Mat shall not float or bubble anywhere after wetland is inundated with water.
3. Planting Operations

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- a. Layout: All plants shall be laid out in random and naturalistic arrangements, as specified in the Contract Drawings unless otherwise directed by the Engineer or Restoration Specialist. All plant and planting area locations shall be staked prior to planting by the Engineer. Place no plantings within two (2) feet of pavements or structures, unless otherwise indicated.
- b. When planting containerized wetland plants, care shall be taken so as not to set the plants in water where there is in excess of 3" - 4" of water between the top of plant and the water surface. When planting dormant wetland plants, care shall be taken so as not to set the plants in water where there is in excess of 12" - 14" of water between the top of plant and the water surface.
- c. When planting containerized or tube wetland plants, care shall be taken so to set the plants in the water regime noted on the Contract Drawings plant schedule.
- d. Rototill/cultivate soils to a depth equal to the depth of the root ball and two times the diameter of the root ball. Set the plant on the solid ground in the center of the area.
- e. Obstructions Below Ground: remove any rock, rubble, masonry, concrete, metal, stones over one inch in diameter or other underground obstructions to the depth necessary to permit proper planting.
- f. Disposal: Remove and dispose of all excess excavations and unsuitable materials. Dispose in accordance with all local laws and regulations at Contractor's cost.

O. Measurement and Payment

The quantity to be measured for payment under this section shall be the total amount of herbaceous plants and seeded areas furnished, planted and maintained.

The contract price per unit for Landscaping Work shall be as indicated on the BID SCHEDULE OF PRICES Item Nos. BMP-7.401-I, BMP-7.401-J, and BMP-7.401-K. The price bid shall be a separate unit price per herbaceous plant specified within the Contract Drawings, and shall include the costs of all excavating and preparing planting pits and beds, adding soil amendments, furnishing plants, digging, inspecting, planting, pruning,

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staking, guying, anchoring, wrapping, mulching, fertilizing, liming, discing, raking, tilling harrowing, mowing, material, and maintaining all plant material areas. The price bid shall also include the costs of all rough and fine grading, all specified soils necessary and required for the satisfactory completion of all landscaping work and all other work incidental thereto in accordance with the plans and specifications to the satisfaction of the Engineer.

The contract price per square foot of seeding shall be as indicated on the BID SCHEDULE OF PRICES Item No. 7.401-I.

PLANT MATERIAL SUMMARY FOR LANDSCAPING WORK

| <u>Item</u> | <u>Description</u> |
|-------------|----------------------------|
| 7.401-I | Seeding |
| 7.401-J | Herbaceous Plants – Plugs |
| 7.401-K | Herbaceous Plants – Quarts |

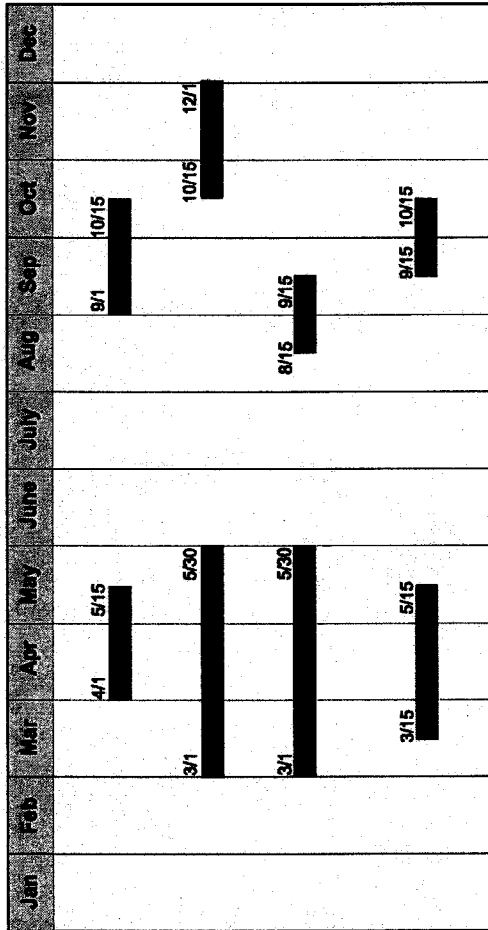
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H&B File: 63000Contract 7/15/01-PlantingSchedule.caf 8-11-08

Division VII - Detailed Specifications - Contract
Landscaping and Restoration Work

**Terrestrial and Wetland Zone
Planting, Transplanting and Seeding Schedule**



Evergreen Material

Deciduous Material

Container-Grown Herbaceous
Material

Permanent Seeding

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7.402

SOD

(NO TEXT ON THIS PAGE)

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7.403

TOPSOIL FOR RESTORED AREA

(NO TEXT ON THIS PAGE)

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7.404-A RESTORATION SPECIALIST (CONSTRUCTION MONITOR)

A. Description of Work

The Contractor is advised that the portions of work within this Contract pertaining to the construction of the outfall, wetland restoration and all other work in the project area shall require the supervisory expertise of a Restoration Specialist. The Restoration Specialist shall supervise all restoration work performed by the Contractor and his/her Subcontractors for the duration of the project, in accordance with the plans, specifications and directions of the Engineer, ensuring that existing vegetation outside the limits of construction and trees within the limits of construction are not impacted.

The Restoration Specialist shall also be responsible for overseeing the implementation of the project's soil erosion control plan. In addition, the Restoration Specialist shall be cognizant of all conditions of the NYSDEC coastal wetlands permit for the project, as they relate to work in the wetlands. Furthermore, the Restoration Specialist shall be responsible for overseeing all installation of plant material. The Restoration Specialist shall be responsible for preparing a restoration plan. The Restoration Specialist shall report to the NYCDDC, as represented on-site by the Engineer. The qualifications of the Restoration Specialist shall be approved by the NYCDDC and on-site prior to the start of any work.

B. Qualifications

The Restoration Specialist utilized to perform the work required must have performed at least three (3) projects similar in scope and type to the required work in the previous five (5) years. The Restoration Specialist shall be a Registered Landscape Architect or have equivalent professional experience. Prior to the start of work, the Contractor shall be required to submit the names and resumes of at least three prospective candidates to the NYCDDC. The NYCDDC shall approve the qualifications of the prospective candidates or alternatively ask for more choices, if the NYCDDC deems the candidates to be not qualified.

C. Site Monitoring

The Restoration Specialist shall monitor the Contractor's in-place erosion and sediment control devices, including, but not limited to, silt fence, turbidity curtain, etc., and shall notify the Contractor when maintenance or repair of these devices is necessary. The Restoration Specialist shall monitor related/adjacent construction to insure that these activities do not

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adversely impact restoration activities or the success of the restoration work.

D. Restoration Supervision

The Restoration Specialist shall supervise all aspects of the restoration including installation of the debris exclusion fence, goose exclusion fence, and all perimeter restoration work. The Restoration Specialist shall oversee all landscaping activities including installation of plant material and slope stabilization.

E. Design and Design Review

The Restoration Specialist shall prepare, design and review design work as needed during construction. This work shall include but not be limited to the following:

- a. research and prepare design revision/modification drawings,
- b. research and prepare revisions/modifications to detailed specifications,
- c. prepare supplemental field sketches,
- d. review and critique design modification drawings and supplemental drawings.

The Restoration Specialist shall undertake this work when directed by the NYCDDC as represented on-site by the Engineer.

F. Photo Documentation

The Restoration Specialist shall keep a digital photograph log of the project. The photo log will follow the progress of the project, in a clear and understandable progression, and shall incorporate before, in progress, and completed photographs of restorations within the project. Fixed photopoints shall be used at each site to ensure that before and after photographs are taken from the same location and angle. The photo log will be utilized by NYCDDC for required reports, etc.

The Restoration Specialist shall use a digital camera with a minimum resolution of 4.1 megapixels for use during all phases of the project for photo-documentation purposes. The Restoration Specialist shall assemble the completed photo log onto CD's and transmit the complete photo log to the Engineer.

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G. Monitoring Reports

The Restoration Specialist shall prepare and submit a Monitoring Report to the NYCDDC representative, its agent, or the Engineer following the completion of all planting and associated restoration activities. The Restoration Specialist shall continue to submit an annual Monitoring Report until the guarantee period(s) for the plant material has expired and until the DEC/ACOE permit requirements are satisfied. Six (6) copies of each report submittal shall be required.

The Restoration Specialist shall examine, monitor and report on the various components of the restoration and shall incorporate color photographs, color photocopies, graphs, etc., as appropriate. All information shall be reported in a concise format. The Monitoring Report shall:

- report on all construction activities related to restoration and inlet stabilization,
- report the conditions of the vegetation planted within this Contract,
- quantify survival and cover rates and compare to permit requirements,
- recommend replacement species,
- report observed impacts to existing vegetation,
- report success rates in controlling erosion and sedimentation,
- report voluntary recruitment,
- present recommendations,
- give general commentary for increasing the success of future restoration projects.

H. As-Built Plans and Information

No as-builts are required for the work under these specifications.

I. Measurement and Payment

The quantity to be measured for payment under this section shall be the total number of hours necessary for the supervision of all restoration work

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within this Contract, site monitoring, design and diagram review, photo documentation, and preparation of monitoring reports in accordance with the plans, specifications and direction of the Engineer, performed prior to the date of Substantial Completion.

For supplying all labor, materials and equipment necessary for Restoration Specialist, the Contractor shall receive a unit price bid.

The contract price per unit for Restoration Specialist shall be as indicated on the BID SCHEDULE OF PRICES Item No. BMP-7.404-A. The unit price bid shall include the costs for all labor, materials, equipment and incidental expenses necessary or required to complete the work in accordance with the plans and specifications to the satisfaction of the NYCDDC representative, its agent, or Engineer.

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7.404-B EROSION AND SEDIMENT CONTROL LICENSED/CERTIFIED PROFESSIONAL

A. Description of Work

The Contractor is advised to retain the services of an independent Licensed/Certified professional with practical experience in the principles and practices of erosion and sediment control and Stormwater Management to prepare and certify a site specific Stormwater Pollution Prevention Plan (SWPPP) in compliance with the New York State Department of Environmental Conservation (NYSDEC) Pollutants Discharge Elimination System (SPDES) General Permit for Stormwater water Runoff from construction activities GP-0-15 -002, issued pursuant to Article 17, Titles 7, 8, and Article 70 of the Environmental Conservation Law (ECL). The Certified Professional shall be approved by NYCDDC and be present on-site prior to the start of any work.

Within thirty (30) days after the contract is registered, the Contractor shall submit a complete SWPPP and Notice Of Intent (NOI) to NYCDDC's Infrastructure – Engineering Support Unit for review and comments. The Contractor through his Licensed/Certified Professional shall make all necessary revisions required and resubmit the SWPPP and the NOI for acceptance and signature. Work shall not begin until a permit identification number is issued by the NYSDEC, and an initial inspection is conducted by the Licensed/Certified Professional certifying that the appropriate control measures specified in the SWPPP have been adequately implemented to the satisfaction of the Resident Engineer and the Project Manager of the Engineering Support Unit.

B. Qualifications

The Licensed/Certified Professional employed to perform the required work must have previous experience in work of this nature and in completing the necessary submittals required under this Contract. The Certified Professional shall be a Professional Engineer or a Landscape Architect licensed to practice in New York State, or a Soil and Water Conservation Society Certified Professional in Erosion and Sediment Control (CPESC). Prior to the start of work, the Contractor is required to submit the names and resumes of at least three (3) prospective candidates to the NYCDDC for approval. The NYCDDC shall make a selection or alternatively ask for more choices, if they deem the candidates to be unqualified.

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C. Site Monitoring, Inspection and Reports

The Certified Professional shall monitor disturbed areas and the Contractor's in-place erosion and sediment control devices, including Turbidity Curtain, Construction Limit Fence, Silt Fence, Debris Exclusion fence, Goose Exclusion Fence, Stabilized Construction Entrance, Portable Sediment Tanks, and site dewatering measures, and shall notify the Contractor when maintenance or repair of these devices is necessary.

Following the start of construction activities, site inspections shall be conducted by a Certified Professional at least once a week and within 24 hours of rainfall events of 0.5 inches or greater. For construction sites where soils disturbance is greater than five (5) acres at one time, the Certified Professional shall conduct at least two (2) site inspections every seven (7) calendar days and within twenty-four (24) hours of the end of each rainfall event of 0.5 inches or greater. The two inspections shall be separated by a minimum of two (2) full calendar days. Subsequent to each inspection, a Certified Professional shall prepare an inspection report and submit the original to the Resident Engineer and one copy to the Infrastructure-Engineering Support Unit. At a minimum, the inspection report shall include, but is not limited to, the following information:

1. Date and Time of inspection;
2. Name and Title of person performing the inspection;
3. A description of the weather and soil conditions (e.g. dry, wet, saturated) at the time of the inspection;
4. A description of the condition runoff at all points of discharged from the construction site. This shall include identification of any discharges of sediment from the construction site. Include discharges from conveyance systems (i.e. pipes, culverts, ditches, etc.) and overland flow;
5. A description of the condition of all natural surface waterbodies located within or immediately adjacent to the properties boundaries of the construction site which receive runoff from disturbed areas. This shall include identification of any discharges of sediment to the surface waterbody;
6. Record of any evidence of soil erosion on the site, potential for pollutants entering the drainage systems, problems at discharge points (such as turbidity in receiving water) and signs of soil and mud transport from the site to the public road at the limits of the project;
7. Identification of all erosion and sediment control practices that need repair or maintenance;

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8. Identification of all erosion and sediment practices that were not installed properly or are not functioning as designed and need to be reinstalled or replaced;
9. Description and sketch of areas with active soil disturbance activity, areas that have been disturbed but are inactive at the time of the inspection, and areas that have been stabilized (temporary and/or final) since the last inspection;
10. Current phase of construction of all post-construction stormwater management practices and identification of all construction that is not in conformance with the SWPPP and technical standards;
11. Corrective actions that must be taken to install, repair, replace or maintain erosion and sediment control practices; and to correct deficiencies identified with the construction of post-construction stormwater management practices;
12. Identification and status of all corrective actions that were required by previous inspection;
13. Digital photographs, with date stamp, that clearly show the condition of all practices that have been identified as needing corrective actions. The Qualified Inspector shall attach paper color copies of the digital photographs to the inspection report being maintained onsite within seven (7) calendar days of the date of the inspection. The qualified inspector shall also take digital photographs with date stamp, that clearly show the condition of the practice(s) after the corrective actions has been completed. The qualified inspector shall attach paper color copies of the digital photographs to the inspection report that documents the completion of the corrective action work within seven (7) calendar days of that inspection.
14. Within one business day of the completion of an inspection, the Qualified Inspector shall notify the Contractor and the Resident Engineer of any corrective actions that need to be taken. The Contractor shall begin implementing the corrective actions within one business day of this notification; and
15. All the inspection reports shall be signed by the Licensed Professional.

The Contractor shall retain a signed copy of the General Permit GP-0-15-002, NOI, SWPPP, signed MS4 SWPPP Acceptance form, NOI Acknowledgment Letter, and all original inspection reports required by this general permit at the construction site in a prominent place for public viewing from the date of initiation of construction activities to the date of final stabilization and the Notice of Termination (NOT) has been submitted to the NYSDEC. These documents must be made available to the permitting authority upon request. Prior to starting construction, the Contractor shall certify that the SWPPP was prepared in accordance with

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the requirements of the permit and it meets all federal, state and local erosion and sediment control requirements.

In addition, the Contractor and Subcontractors shall identify at least one Trained Contractor who is an employee of the company that will be responsible for a day to day implementation of the SWPPP. The name and telephone number of this person should be listed in the SWPPP. The Trained Contractor shall be a Professional Engineer, Registered Landscape Architect, or have received a DEC-endorsed four (4) hours of Erosion and Sediment Control training. After receiving the initial training, the Trained Contractor shall attend a four (4) hours training every three (3) years. The Contractor shall ensure that at least one Trained Contractor is on site on a daily basis when soil disturbance activities are being performed.

Performing implementation of a SWPPP on a permitted construction project without a Trained Contractor on site daily is a violation of Part III.A.6 of the SPDES General Permit GP-0-15-002. Stormwater controls must be maintained in good operating condition until all disturbed soils are permanently stabilized. Control devices in need of repair should be repaired promptly after identification.

Prior to filing of the Notice of Termination (NOT), or at the end of the permit term, the Contractor shall have the Licensed Professional perform a final site inspection. The Licensed Professional shall certify that the site has undergone final stabilization using either vegetative or structural stabilization methods and that all temporary erosion and sediment controls (such as silt fence, construction limit fence, turbidity curtain, stabilized construction entrance) not needed for long term erosion control have been removed. Subsequently, the Contractor shall submit a complete NOT to the Engineering Support Unit to terminate the permit coverage.

Additionally, the Licensed Professional must identify all permanent Stormwater management structures that have been constructed, and provide the owner(s) of such structures with a manual describing the operation and maintenance practices that will be necessary in order for the structures to function as designed after the site has been stabilized.

The Licensed Professional must also certify that the permanent structures have been constructed as described in the SWPPP.

D. Contractor's Liability.

The Contractor shall be liable for any discharge that either causes or contributes to a violation of water quality standards as contained in Parts

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700 through 705 of Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York. Should any stormwater runoff from the site violate the water quality standards, the Contractor will be directed to take immediate steps, at his own expense, to rectify the situation and prevent any further sediment from entering storm sewer system.

In the event that pollutants are discharged to the storm water system due to the Contractor's negligence, the Resident Engineer will direct the Contractor to cease any or all construction activities contributing to the release of these pollutants. The Contractor shall be held responsible, at his own cost, for any and all necessary actions to remedy the damage.

Furthermore, failure of the Contractor and Subcontractor(s) to strictly adhere to any permit requirements shall constitute a permit violation that could result in substantial criminal, civil, and administrative penalties.

It is the Contractor's responsibility to pay all the SPDES permit fees which shall consist of the yearly regulatory fee, the initial authorization fee per acre of land disturbed and per acre of future impervious area. The Contractor shall be liable for all penalties incurred due to his failure to pay these fees on time.

E. Measurement and Payment

The quantity to be measured for payment under this section shall be the total number of days necessary to prepare the required reports to secure the permits; conduct the inspection and supervision of all erosion and sediment control works within this Contract, site monitoring, photo documentation, and preparation of monitoring reports in accordance with the plans, specifications and direction of the resident engineer, performed prior to the date of substantial completion.

The Contractor shall receive a unit price bid for supplying all labor, materials and equipment required by the Certified Professional.

The contract price per unit for the Licensed/Certified Professional shall be as indicated on the Bid Schedule of Price for Item No. BMP-7.404-B. The unit price bid shall include, but not be limited to, the cost of furnishing all the labor, materials, fees, permits and testing required to prepare the SWPPP, provide and construct all erosion and sediment control devices in accordance with the approved SWPPP; inspect and monitor the work; comply with NYSDEC permitting requirements and all necessary incidentals to complete the work all in accordance with the specifications and the directions of the Engineer.

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7.405

VECTOR, PEST AND WILDLIFE CONTROL

(NO TEXT ON THIS PAGE)

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7.406

WOOD CHIPS

(NO TEXT ON THIS PAGE)

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7.407

JUTE MESH

(NO TEXT ON THIS PAGE)

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7.407-A EROSION CONTROL MAT - STRAW

A. Description of Work

Under this item, the Contractor shall furnish and place erosion control mat for slope protection within areas designated on the plans or where directed by the Engineer.

B. Material

The Erosion Control Mat shall be 100% biodegradable and meet the following requirements:

| | |
|---------|---|
| Netting | One Side Only, Organic Leno Weave Jute, 100% Biodegradable 0.5" x 1.0" opening |
| Matrix | 100% Agriculture Straw 0.55 lbs/yd ² 298.4 g/m ² |
| Thread | 1.5" stitch space, Completely biodegradable |

Index Value Properties

| <u>Property</u> | <u>Test Method</u> | <u>Typical</u> |
|--------------------------|--------------------|--------------------------|
| Mass/Unit Area | ASTM D6475 | 10.00 oz/yd ² |
| Thickness | ASTM D6525 | 0.40 in |
| Tensile Strength-MD | ASTM D6818 | 106 lb/ft |
| Elongation-MD | ASTM D6818 | 16.7% |
| Tensile Strength-TD | ASTM D6818 | 118 lb/ft |
| Elongation-TD | ASTM D6818 | 26.8% |
| Light Penetration | ASTM D6567 | 6% |
| Water Absorption | ASTM D1117 | 322% |
| Unvegetated Shear Stress | ASTM D6460 | 1.55 lbs/ft ² |
| Slope | | 3:1 or flatter |

The Erosion Control Mat shall be ECS-1B manufactured by East Coast Erosion Blankets, Bernville, PA; Bionet S75BN manufactured by Tensar North American Green, Poseyville, IN; S1000BD manufactured by Enviroscope Erosion Control Materials, Deshler, OH; or approved equal.

Wire Staples shall consist of 12-inch lengths of No. 11 gauge wire bent to form a "U" or other wire staples as approved.

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C. Method

Erosion control mat shall be placed on surface of sand perpendicular to slope contours where directed by the Engineer. Erosion control mat shall be laid without stretching so that it lies loosely on the sand and in contact with the sand at all points and shall be pressed firmly into the sand surface by rolling or tamping. If seeding is required, it shall be done prior to the installation of the erosion control mat.

The upper end of each roll of erosion control mat shall be turned and buried to a depth of six (6) inches, with the sand firmly tamped against it. Erosion control matting shall have a minimum lap of six (6) inches on all sides. Ends of rolls shall also have a minimum lap of six (6) inches with the upgrade section on top.

Check slots shall be constructed at intervals of 50 feet, unless otherwise directed by placing a fold of erosion control mat six (6) inches vertically into the ground with replaced sand tamped firmly against it.

Erosion control mat shall be held tightly to the sand by staples driven firmly into the ground. Staples shall be spaced no more than three (3) feet apart, along the sides and center of the erosion control mat and no more than one (1) foot apart at roll ends, check slots and at other critical areas as determined by the Engineer.

D. Maintenance

The Contractor shall maintain the areas of erosion control mat installation until final acceptance of the contract. Maintenance shall consist of providing protection for erosion control mat and repair of areas damaged by equipment, erosion, fire, or other causes, as well as re-establishment of the grade and conditions of the area as specified.

E. Measurement and Payment

The quantity to be measured for payment under this Section shall be the number of square feet of surface area on which erosion control mat has been installed in accordance with the plans and specifications and directions of the Engineer.

The Contract price per square feet of Erosion Control Mat - Straw shall be as indicated on the BID SCHEDULE OF PRICES Item No. BMP-7.407-A. The bid price shall include the costs for all labor, material, equipment and incidental in accordance with the plans and specifications to the satisfaction of the Engineer.

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7.407-B EROSION CONTROL MAT – CURLED WOOD OR COCONUT FIBER

(NO TEXT ON THIS PAGE)

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7.408-B HERBICIDE APPLICATION

(NO TEXT ON THIS PAGE)

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7.409

MYCORRHIZAL INOCULANTS

(NO TEXT ON THIS PAGE)

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7.410 PLANT PROTECTION FENCE

(NO TEXT ON THIS PAGE)

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7.411 WATERING AND WEEDING DURING GUARANTEE PERIODA. Description of Work1. Planting Period:

The Contractor shall provide all labor, material, tools and equipment necessary to maintain and cultivate the healthy growth of all plantings in the planted area after installation, in accordance with the specifications and contract drawings, during the planting period of the project. For the purposes of this item, the planting period shall begin at the onset of planting, and be continuous until planting is accepted. Plant material will not be accepted unless the plants exhibit healthy growth and satisfactory foliage conditions. For watering and weeding during the planting period, the Contractor shall utilize this item for payment.

2. Guarantee Period:

Upon acceptance by the City and during the guarantee period, the Contractor shall assume the work outlined within this item at no additional payment. No separate payment will be made for watering and weeding during the guarantee period, and such work will be deemed included in the prior bid for plant material.

B. Requirements

The Contractor's responsibilities under this item consists of watering and weeding after installation as required to maintain installed plant material in a healthy and vigorous condition and to provide an acceptable growth medium, in accordance with the specifications and contract drawings.

The Landscape Subcontractor shall submit a watering and weeding plan and maintenance schedule prior to the installation of plant material, to be approved by the Engineer or Restoration Specialist. The plan shall include proposed methods of watering and weeding, including tree gators (bags), sprinklers, drip hoses, irrigation, tanker vehicles and hand watering, etc., as well as manual weeding and weeding tools.

The approved plan and schedule do not relieve the Contractor in any way from any aspect of the replacement of dead plant material. The Landscape Subcontractor may alter the maintenance schedule based on weather and field conditions.

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C. No Separate Payment

No separate payment shall be made for this work of the specification. All costs shall be included in the various Contract Items of this Contract.

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7.412 SLOPE STABILIZATION

(NO TEXT ON THIS PAGE)

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7.413 TEMPORARY GOOSE EXCLUSION FENCEA. Description

Under this Item, the Contractor shall furnish, install, maintain and remove a temporary Goose Fence as a protective measure against plant herbivory, according to the Plans and Specifications and the direction of the Engineer.

The fence shall be a minimum of five (5) feet high above existing grade and the posts shall be a non-tropical hardwood. The fence shall completely enclose all planted areas so as to prevent geese from entering any newly planted site.

The Contractor shall repair the fence as often as is necessary throughout the guarantee and maintenance period. The Contractor shall remove the entire fence at the end of the maintenance period, or as directed by the Engineer. Removal of fence is included under this Item; no additional payment will be made for this work.

B. Submittals and Materials

The Contractor must submit the following samples or the manufacturer's catalog cuts for approval ten (10) days before beginning work:

1. Non-tropical hardwood stakes (untreated).
2. Black Bi-oriented Utility Fence (TENAXUS, Goose D-Fence, Memphis Net & Twine Co., Inc., Industrial Netting or approved equal). The fencing shall meet the following specifications:
 - a. Material: High density UV stabilized polyethylene plastic resin
 - b. Height/length: 48" x 50"
 - c. Weight per roll: 20 lbs
 - d. Nominal mesh opening: 1"
 - e. Tensile strength (range): 2000 - 2310psi
 - f. Elongation at Break (%): 660%
 - g. 1/4" twine or string

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- h. 1" metallic mylar
- i. 1-1/2" galvanized roofing nails.
- j. 2" galvanized staples.
- k. 14" Nylon cable ties.

C. Execution

The goose fence shall be installed by skilled laborers with proper tools and equipment for an aquatic environment within 1 day of completing each 50' section of planting. Layout location of stakes according to the Contract Drawings. The Contractor shall drive stakes so that they are level and 1' (min.) from the edge of proposed coir logs or wetland plugs. All broken or splintered stakes shall be removed and replaced with new ones.

Install black bi-oriented utility fencing making sure that there is no space between the existing grade and the bottom of the fence. Fasten safety fence to stake by using 1-1/2" roofing nails. Close all gaps so that adjacent pieces of fence abut tightly together.

Attach twine to stakes as shown on the Contract Drawings. String shall be pulled taught to reduce sagging. The string must alternate in and out of fence netting for increased stability of fence. Tie 10" strip of metallic (mylar) flagging along string every four feet. Work in one direction only. The Contractor shall be responsible for removing the fence at the end of the guarantee period for the wetland plants, or at the direction of the Engineer.

D. Measurement and Payment

The quantity to be measured for payment under this Section shall be the total number of linear feet of fence furnished, installed, maintained and accepted in accordance with the Plans and Specifications and the directions of the Engineer.

The contract price per linear foot for Goose Exclusion Fence shall be as indicated on the BID SCHEDULE OF PRICES, Item No. BMP-7.413. The unit price per linear foot shall include all labor, materials, equipment and work incidental expenses necessary or required to complete the work in accordance with the plans and specifications and to the satisfaction of the Engineer.

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7.414

AS-BUILT PLANS

(NO TEXT ON THIS PAGE)

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7.415

VINE AND INVASIVE PLANT REMOVAL

(NO TEXT ON THIS PAGE)

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7.415A WILDLIFE STRUCTURES

(NO TEXT ON THIS PAGE)

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7.416

GALVINIZED CHICKEN WIRE

(NO TEXT ON THIS PAGE)

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7.417 DEBRIS EXCLUSION FENCEA. Description of Work

The Contractor shall furnish all materials, labor, and equipment necessary to install the debris exclusion fence specified herein and as shown on the Contract Drawings, including all incidental and appurtenant work required for a complete job.

The debris exclusion fence shall protect recently installed plant material from water borne debris and wrack. The contractor shall maintain the debris exclusion fence in good condition and repaired as necessary by the Contractor during the landscaping and plant guarantee period as directed by the Engineer.

B. Materials and Methods

The debris exclusion fence shall be constructed with the following materials:

A. Furnish saltwater wire netting as follows:

1. 16 gauge galvanized wire
2. 1.5 inch mesh opening
3. Galvanized after weaving

B. Posts: Furnish posts of the minimum sizes and weights as follows, 8-foot long, 2-inch square, sharpened oak posts. Space posts 5 feet on center maximum, unless otherwise shown.

C. Contractor shall use minimum 16 gage high tensile wire to connect oak posts. The ties shall be rust resistant.

D. Ties: For attaching netting to oak posts, use 16 inch high tensile polyethylene cable tie strips. For attaching netting to wire grid, use 1/8 inch high tensile polyethylene cable tie strips. All ties shall be ultraviolet light resistant. The Contractor shall secure two layers of netting to the poles, one on the front side of the poles and one on the back, so a double layer is created.

E. Line posts shall be spaced 5-feet on center maximum, unless otherwise shown.

The fence shall conform to the detail for Debris Exclusion Fence on the Contract drawings.

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The debris exclusion fence shall be located where indicated on the Contract Drawings.

C. Maintenance

The debris exclusion fence shall be inspected periodically (at least once per week), or as directed by the Engineer through the plant guarantee period. Any required repairs shall be made immediately.

D. Measurement and Payment

The quantity to be measured for payment under this Section shall be the total number of linear feet of debris exclusion fence furnished, installed and maintained in accordance with the Plans and Specifications and the directions of the Engineer.

The contract price per linear foot for Debris Exclusion Fence shall be as indicated on the BID SCHEDULE OF PRICES Item No. BMP-7.417. The unit price per linear foot shall include all labor, materials, equipment and work incidental expenses necessary or required to complete the work in accordance with the plans and specifications and to the satisfaction of the Engineer. The cost of removal and disposal of the debris exclusion fence shall be included in the unit price.

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7.418 CLEAN SAND FOR RESTORED AREA

A. Description of Work

Under this item, the Contractor shall provide clean sand for fill in accordance with the plans and as directed by the Engineer.

The Contractor shall be liable for any damage to property caused by fill operations and all areas of construction disturbed shall be restored to their original condition to the satisfaction of the Engineer.

The Contractor shall supply information detailing source location of clean sand from off-site and provide a sample of sand to be used for inspection by the Engineer and Restoration Specialist prior to delivery of sand stockpile to site.

B. Material

Material shall consist of sand, free of organic material, loam, debris, frozen soil or other deleterious material which may be compressible. The sand shall be of uniform quality, friable, free from hard clods, stiff clay, hard pan, partially disintegrated stone, stones, lime, cement, ashes, slag, concrete, tar residues, tarred paper, gasoline, motor oil, or other petroleum hydrocarbons, boards, brush, weeds, stalks, roots, sods, chips, sticks or any other undesirable material. Invasive, nonnative seed shall not be allowed in the clean sand material.

Clean sand should conform to the following gradation requirements:

| U.S. Standard Sieve Size | Percent Passing by Weight |
|--------------------------|---------------------------|
| No. 8 | 100 |
| No. 10 | 15-100 |
| No. 40 | 0-70 |
| No. 60 | 0-12 |

Uniformly graded sands, defined as having a uniformity coefficient ($C_u = D_{60}/D_{10}$) less than 6, are unacceptable.

Tests shall be required and shall serve as a representative analysis for every 200 cubic yards of material utilized.

Clean sand shall comply with the following requirements: No sand shall be delivered in a frozen or muddy condition.

1. Invasive, Nonnative Plant Species: Clean sand shall be free of

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invasive nonnative plant propagules.

C. Measurement and Payment

The quantity of clean sand to be paid for under this item shall be the number of cubic yards of clean sand furnished from off-contract site sources (i.e. suppliers approved by the engineer), mixed, placed and incorporated in the completed work in accordance with the plans and specifications to the satisfaction of the Engineer, measured in trucks used for delivery, at the site of the work. The quantity of clean sand to be paid for under this item shall be measured in cubic yards in trucks used for delivery. No clean sand shall be furnished until ordered by the Engineer. Delivery ticket with name and address of vendor, date and estimated volume must be supplied to the Engineer prior to truck measurement.

The contract price per unit for Clean Sand shall be as indicated on the BID SCHEDULE OF PRICES Item No. BMP-7.418. The bid price shall be a unit price per cubic yard of Clean Sand, and shall include the cost of all labor, materials and equipment necessary to perform work incidental thereto, in accordance with the plans and specifications to the satisfaction of the Engineer.

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7.419

TREE AND ROOT PRUNING

(NO TEXT ON THIS PAGE)

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7.420

TYPICAL GUTTER AND CHUTE RESTORATION

(NO TEXT ON THIS PAGE)

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7.421 ROOT BARRIER

A. Description of Work

The Contractor shall furnish all materials, labor, and equipment necessary to install root barrier specified herein and as shown on the Contract Drawings, including all incidental and appurtenant work required for a complete job.

The installation of the root barrier shall be maintained in good condition and repaired as necessary by the Contractor during the construction and post-construction/site stabilization phases as directed by Engineer.

B. Materials and Methods

The root barrier shall be an injection molded or extruded modular component made of high density polypropethylene or polyethylene plastic. Panels shall measure 48" in depth with a mean thickness of 0.08". The root barrier shall have raised ribs, or root guide, protruding 1/2" from the face of the panel running from top to bottom. The distance between ribs shall not exceed 6".

C. Installation

Top of root barrier shall be set one-inch above finished grade of soil. The raised root guiding ribs must face away from the newly landscaped area. This shall prevent roots from any surrounding Phragmites or invasive plants from entering the newly landscaped area. The root barrier shall be installed in accordance with manufacturer's instruction.

D. Measurement and Payment

The quantity to be measured for payment under this Section shall be the total square feet of root barrier furnished and installed in accordance with the Contract Drawings, specifications and directed by the Engineer.

The contract price per square foot of root barrier shall be as indicated on the BID SCHEDULE OF PRICES, Item No. BMP-7.421. The bid price shall constitute full compensation for all labor, materials, equipment and incidental expenses necessary to complete and maintain the work in accordance with the plans and specifications to the satisfaction of the Engineer.

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7.500

SOIL EROSION AND SEDIMENTATION CONTROL MEASURES

Under soil erosion and sedimentation control work, the Contractor shall provide all labor, materials, tools and equipment necessary to complete the execution of the work in complete accordance with the Specifications and all Contract Drawings. All Soil Erosion and Sedimentation Control work shall be done in conformance with and subject to the renewed State Pollutant Discharge Elimination System (SPDES) General Permits for Discharges Stormwater from Construction Activity, GP-0-015-002, the latest edition of the "New York Guidelines for Urban Erosion and Sediment Control" published by the Empire State Chapter of the Soil and Water Conservation Society, and the New York State Department of Transportation Standard Specification Part 107-12 -Soil, Erosion and Air Pollution Statement, including, but not limited to, the following methods of erosion and sedimentation control.

1. Slopes left exposed will, within 30 working days of completion of any phase of grading, be planted or otherwise provided with ground cover device, or structures sufficient to restrain erosion.
2. A ground cover sufficient to restrain erosion must be planted or otherwise provided within 15 working days on that portion of the tract (disturbed area) upon which further active construction is not being undertaken.

The Contractor shall submit for approval by the Engineer, NYCDDC and NYSDEC, a written Erosion and Sedimentation Control Plan, prepared by a Certified Professional in Erosion and Sediment Control (CPESC), who is a Professional Engineer (P.E.) or under the supervision of a P.E. The Erosion and Sediment Control Plan must be signed and sealed by that CPESC and/or the supervising P.E. The Plan shall comply with all conditions of the applicable wetland permit issued by NYSDEC.

The Erosion and Sedimentation Control Plan shall conform to the guidelines as set forth in the latest edition of the "New York Guidelines for Urban Erosion and Sediment Control" published by the Empire State Chapter of the Soil and Water Conservation Society and he/she shall implement the following:

- No stockpiling of excavated material would be allowed in a manner or location that would permit erosion and its subsequent sedimentation in wetlands or other natural areas.
- No storage of soil shall be permitted within the Contract limits. Soil is deemed to be for this requirement any sediment including

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material such as topsoil fill, sand, any excavated material, boulders, stones, cold patch, etc.

- Storm sewers will be installed in a sequence and manner that reduces the time during which the tops of excavated areas would be exposed and vulnerable to erosion.
- At the end of each day's work, the street where sewers are being installed will be cleaned and swept to reduce the amount of soil that could potentially impact downstream areas as sediment. The Contractor shall be required to have a street sweeper on the site.
- Use truck tracking pads at the construction access locations to remove sediment from the tires of the trucks and other construction equipment prior to driving on the adjacent streets.
- Utilize sediment basins, sediment traps and/or sediment filters in the erosion control plan to capture sediment from run-off and from water produced by dewatering operations.
- Use portable sediment tanks to remove sediment from water generated by dewatering operations. All water from dewatering shall be treated before discharge into any surface water bodies, unless the turbidity of the effluent is less than the ambient level of the receiving water body as measured by the turbidity meter in standard units (i.e. NTU's).
- The Contractor shall supply all portable equipment.
- Use construction limit fence and silt fence as shown on Contract Drawings, unless otherwise directed by the Engineer.
- Schedule work in wet areas during relatively dry summer months and during low tide.
- Employ water diversions to direct the stream away from the area being worked on, so as to create drier conditions for in-stream work.
- Use temporary pumping sump to control water level at site.
- Prior to the start of construction activities inspect all erosion control measures and continually monitor them, especially after each storm event.

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- If the Contractor uses dewatering methods which produce effluent discharges, the Contractor shall monitor each discharge effluent and receiving water body. Discharges shall not cause substantial visible contrast to the natural condition in any receiving water body. A meter which records turbidity in standard units (i.e. NTUs) shall be utilized to establish ambient conditions in each water prior to discharge. If any monitored turbidity level exceeds the ambient level of the receiving water body, the Contractor shall insure (e.g., by reducing the flow rate or otherwise adjusting the dewatering system) that no substantial visible contrast to the natural condition in the receiving water body occurs. The action(s) taken, or the decision not to take any action, shall be recorded in the monitors log.

The Contractor shall not receive any payment for the preparation of the Erosion and Sedimentation Control Plan. Installation of the Erosion and Sedimentation features and maintenance of them will result in payment for their respective items as described in Section 7.501 through 7.516.

The work shall include items of work specified under the following sections:

| <u>Section Number</u> | <u>Title</u> |
|-----------------------|---|
| 7.501 | Maintenance of Erosion Control Measures |
| 7.502 | Construction Limit Fence |
| 7.504A | Silt Fence |
| 7.509-A | Stabilized Construction Entrance |
| 7.510 | Portable Sediment Tank |
| 7.516 | Turbidity Curtain |

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7.501

MAINTENANCE OF EROSION CONTROL MEASURES

Maintenance/repair of the erosion and sediment control measures shall be performed by the Contractor only as directed by the Engineer.

When, in the judgment of the Engineer, Restoration Specialist, and NYCDDC Construction Monitor, the soil erosion control measures have deteriorated to a point of not functioning adequately because of storm events, the Contractor shall be notified to make the necessary repairs.

If the Engineer deems that the erosion control device was not adequately installed in the first place, repair of such a device shall be the sole responsibility of the Contractor.

Damage to the erosion control measures caused by the construction activity of the Contractor is the responsibility of the Contractor. If the Engineer determines that the damage is the result of the Contractor's construction activity, then the Engineer shall order that the devices are repaired. The Contractor shall make the repairs at his/her own expense.

In the event that the erosion control measures are damaged as a result of vandalism by the general public, the Contractor shall notify his insurance company and put forth his claim for remuneration to the said damage.

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7.502 CONSTRUCTION LIMIT FENCEA. Description of Work

The Contractor shall furnish all materials, labor, and equipment necessary to install the construction limit fence specified herein and as shown on the Contract Drawings, including all incidental and appurtenant work required for a complete job. The construction limit fence is used to mark the limit of the construction activity and to protect the adjacent areas.

Upon furnishing and installing the above sedimentation and erosion control device but prior to commencing any other work on-site, the Contractor shall notify the Engineer and arrange for an on-site inspection.

The construction limit fence shall be maintained in good condition and repaired as necessary by the Contractor during the construction and post-construction/site stabilization phases as directed by the Engineer.

B. Materials and Methods

Construction Limit Fence: The construction limit fence shall be high visibility orange construction fence with a minimum height of four (4) feet. The fence shall be constructed of polyethylene fabric fastened to vertical line posts.

Fabric shall be a high density polyethylene grid tightly secured to wood posts. The fabric shall be securely fastened to vertical line posts by means of ties and spaced not more than 12 inches apart on rails and not more than 14 inches apart on line posts.

The construction limit fence shall be located where indicated on the Contract Drawings. The fence shall be adjusted to avoid interference with trees and to maintain access to houses.

Line posts shall be conventional metal "T" or "U" post and shall be spaced not more than 6 feet on centers. Posts shall be securely set in the ground. Line posts shall extend at least 2 feet below finished grade. Post locations shall be adjusted to avoid tree roots as appropriate.

C. Maintenance

The construction limit fences shall be inspected periodically (at least once per week), or as directed by the Engineer. Any required repairs shall be made immediately.

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D. Measurement and Payment

The quantity to be measured for payment under this Section shall be the total number of linear feet of construction limit fence furnished, installed and maintained in accordance with the Plans and Specifications and the directions of the Engineer.

The contract price per linear foot for Construction Limit Fence shall be as indicated on the BID SCHEDULE OF PRICES, Item No. BMP-7.502. The unit price per linear foot shall include all labor, materials, equipment and work incidental expenses necessary or required to complete the work in accordance with the plans and specifications and to the satisfaction of the Engineer.

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7.503

STAKED STRAW BALES

(NO TEXT ON THIS PAGE)

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7.504A SILT FENCEA. Description of Work

The Contractor shall furnish all materials, labor, and equipment necessary to construct silt fence specified herein and as shown on the Contract Drawings, including all incidental and appurtenant work required for a complete job.

Upon furnishing and installing the approved silt fence but prior to commencing any other work on-site, the Contractor shall notify the Engineer and arrange for an on-site inspection.

The silt fence shall be maintained in good condition and repaired as necessary by the Contractor during the construction and post-construction/site stabilization phases as directed by the Engineer.

B. Materials and Methods

1. Welded Wire Fence: The welded wire fence shall be a welded wire fence with a minimum height of 20 inches. The fence shall be constructed of wire fabric fastened to the middle rails and to vertical line posts.

Wire fabric shall be of No. 6 gauge wire with a mesh of approximately 4 inches. The upper edge of the fabric shall be twisted and barbed. The fabric shall be securely fastened to vertical line posts by means of ties spaced not more than 12 inches apart on rails and not more than 14 inches apart on line posts.

The silt fence shall be located where indicated on the Contract Drawings. The fence shall be adjusted to avoid interference with trees and to maintain access to houses.

Line posts shall be spaced no more than 6 feet on centers. Posts shall be securely set in the ground. Line posts shall extend at least 16 inches below finished grade. Post locations shall be adjusted to avoid tree roots as appropriate.

2. Filter Fabric: Filter fabric shall be securely attached to the vertical line posts and wire fabric.

The filter fabric shall be purchased and delivered in a continuous roll and cut on-site to the length of the barrier(s) to avoid the use of joints. Dimensions of the roll shall be thirty-six (36) inches by one

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hundred (100) feet in length. When joints are necessary, filter cloth shall be spliced together only at a line post, with a minimum 6-inch overlap, and securely sealed. The filter fabric shall be Fabric MUTUAL MISF 1776 as manufactured by Mutual Industries Inc., Fabric #GTF190SF as manufactured by Thrace Linq, Fabric Geotex2130 as manufactured by Propex, or approved equal.

A trench shall be excavated approximately 6 inches wide and 6 inches deep along the line of posts and upslope from the barrier. The filter fabric shall be extended into the trench, the trench backfilled, and the soil compacted over the filter fabric.

Silt fences shall be removed when they have served their useful purpose, but not before the upslope area has been permanently stabilized.

C. Maintenance

The silt fences shall be inspected periodically (at least once per week), or as directed by the Engineer. Any required repairs shall be made immediately.

Filter fabric shall be inspected at least once per week and immediately after each rainfall and at least daily during prolonged rainfall. Any required repairs shall be made immediately. Should the fabric decompose or become ineffective prior to the end of the expected usable life while the barrier is still necessary, the fabric shall be replaced promptly.

D. Measurement and Payment

The quantity to be measured for payment under this section shall be the total number of linear feet of silt fence, installed and maintained in accordance with the plans, specifications and directions of the Engineer. The construction (limiting) fence and filter fabric which together make up the silt fence shall be measured as one erosion and sediment control feature.

The bid price shall constitute full compensation for all labor, materials and equipment and incidental expenses necessary to complete the work in accordance with the plans and specifications and to the satisfaction of the Engineer.

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Payment will be made under:

| Item No. | Item | Pay Unit |
|------------|------------|----------|
| BMP-7.504A | Silt Fence | LF |

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7.505

SAND BAGS

(NO TEXT ON THIS PAGE)

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7.506

SEDIMENT TRAP WITH FILTER

(NO TEXT ON THIS PAGE)

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7.507

SEDIMENT FILTER

(NO TEXT ON THIS PAGE)

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7.508

SEDIMENT BASIN

(NO TEXT ON THIS PAGE)

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7.509-A STABILIZED CONSTRUCTION ENTRANCE

A. Description of Work

The Contractor shall furnish all materials, labor, and equipment necessary to construct the stabilized construction entrance specified herein and within the limits as shown on the Contract Drawings, including all incidental and appurtenant work required for a complete job.

Upon furnishing and installing the stabilized construction entrance but prior to commencing any other work on-site, the Contractor shall notify the Engineer and arrange for an on-site inspection.

The entrance shall be maintained in good condition and repaired as necessary by the Contractor during the construction phases as directed by the Engineer.

B. Materials and Methods

1. The entrance areas shall be cleared and stripped of all vegetation, roots and other objectionable material prior to installation of the access way as specified.
2. Provide surface drainage and divert excess runoff to stabilized areas as required and as directed by the Engineer.
3. Aggregate - use NYSDOT No. 3 Coarse Aggregate.
4. Thickness - not less than six (6) inches for aggregate.
5. Width shall be fifteen (15) foot minimum.
6. Filter cloth shall be placed over the entire area prior to placing of stone. Filter cloth shall be as specified below.

Filter cloth underliner shall be suitable for heavy duty construction traffic and have the following minimum properties:

| | |
|-------------------------|----------|
| Grab tensile strength | 220 lbs. |
| Elongation at failure | 220% |
| Mullen Burst Strength | 430% |
| Puncture Strength | 120 lbs. |
| Equivalent opening size | 40-80 mm |

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Filter cloth shall be TenCate Mirafi 600X, US Fabrics 315, Beltech 315, TerraTexHD or approved equal.

7. Surface water - All surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a mountable berm with 5:1 slopes will be permitted.
8. Maintenance - the entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto public rights-of-way. All sediment spilled, dropped, washed or tracked onto public rights-of-way must be removed immediately.
9. When truck washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
10. Periodic inspection and needed maintenance shall be provided after each rain.
11. After completion of the project, the stabilized construction entrance shall be removed and regraded to its original condition. Prior to grading and planting, the area shall be tilled to lessen the compaction of the soils.

C. Maintenance

1. Maintenance of the stabilized construction entrance will include periodic inspection of the surface condition. Top dress with new aggregate as needed. Any areas producing sediment should be treated immediately.
2. After completion of the project, the stabilized construction entrance shall be removed and the areas regraded to their original elevations. Prior to seeding and planting, the areas shall be tilled to lessen the compaction of the soils.
3. For those stabilized construction entrances that are in the beds of accessways, the rock can stay in place for use in accessways.

D. No Separate Payment

The contract price per unit for the Stabilized Construction Entrance shall be as indicated on the BID SCHEDULE OF PRICES, Item No. BMP-7.509-A. The bid price shall constitute full compensation for all labor, materials and equipment and incidental expenses necessary to complete

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the work in accordance with the plans and specifications and to the satisfaction of the Engineer.

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7.510 PORTABLE SEDIMENT TANKA. Description of Work

The Contractor shall furnish all materials, labor and equipment necessary to install the portable sediment tank specified herein and as shown on the Contract Drawings. A sediment tank is a compartmented tank container through which sediment laden water is pumped to trap and retain the sediment.

The purpose of the portable sediment tank is to trap and retain sediment prior to discharging the water to wetlands, adjoining properties and rights-of-way below the sediment tank site. The sediment tank shall be located for ease of cleanout and disposal of the trapped sediment and to minimize the interference with construction activities and pedestrian traffic. The temporary relocation of the tank(s) during clean-out shall be included in the cost of this item. Relocating the tank(s) from one work area to another before, during and after construction shall be included in the cost of this item.

B. Design Criteria

The following formula should be used in determining the storage volume of the sediment tank: pump discharge (gpm) x 16 = cubic foot storage.

Certified pump curves are to be provided to ensure that the pump provided can meet the hydraulic requirements.

C. Tank Specifications

The portable sediment tank shall be an above ground horizontal single-wall UL-142 manufactured by Highland Tank or weir box manufactured by Rain for Rent or equivalent as approved by the Engineer.

The Contractor shall submit proposed sediment tanks for approval.

D. Maintenance

Portable sediment tanks shall be installed and maintained in accordance with Section 5A.47 of the New York Standards and Specifications for Erosion and Sediment Controls to the satisfaction of the Engineer.

The Contractor shall be responsible for cleaning out the sediment tank when silt reaches a depth of 6 inches. All sediment collected in the tank

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shall be disposed of in an approved location in which further sediment transport will not occur or as approved by the Inspector.

E. Measurement and Payment

The quantity to be paid for under this item shall be the number of portable sediment tanks placed in accordance with the plans and specifications to the satisfaction of the Engineer, measured in number of above items at the site of the work.

The Contract price per unit for portable sediment tanks shall be as indicated on the BID SCHEDULE OF PRICES, Item No. BMP-7.510. The bid price shall be a unit price per portable sediment tank and shall include the cost of all labor, materials and equipment necessary to furnish, place and incorporate and all other work incidental thereto, in accordance with the plans and specifications to the satisfaction of the Engineer.

* * * * *

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7.511

STORM DRAIN - INLET PROTECTION MEASURES

(NO TEXT ON THIS PAGE)

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7.512

DIRTBAG

(NO TEXT ON THIS PAGE)

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7.513

SURFACE WATER COLLECTOR

(NO TEXT ON THIS PAGE)

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7.514 TEMPORARY WATER BARRIER

(NO TEXT ON THIS PAGE)

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7.515

JERSEY BARRIER

(NO TEXT ON THIS PAGE)

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7.516 TURBIDITY CURTAINA. Description of Work

1. The Contractor shall furnish, deliver and install a turbidity curtain in the water body adjacent to the work area to trap sediment and prevent migration of silt from the work site into the water body. The turbidity curtain is an impenetrable barrier supported at the top through a flotation system and weighted at the bottom to achieve closure.
2. The turbidity curtain shall be used when construction activity occurs along the water body shoreline. The turbidity curtain shall be in place prior to any work starting in the work area before any land disturbance activities are initiated. The turbidity curtain shall be removed within a week of completing the work.
3. The Turbidity Curtain shall be located beyond the lateral limits of the work area and firmly anchored in place. The alignment shall be set as close to the work area as possible but not so close as to be disturbed by construction equipment. The height of the curtain shall be 20% greater than the depth of the water at Mean Higher High Water, to account for water level fluctuations and tidal range.
4. End anchors shall be provided, with intermediate anchor points (for stakes or anchors) such that unanchored spans do not exceed 100 feet, sufficient to maintain the turbidity curtain in place

B. Materials

1. Turbidity Curtain shall be per NYSDOT Sheet 209-06.
2. Turbidity Curtain shall be made from monofilament woven polypropylene with the following properties, or approved equal:

| | |
|--------------------|------------------------------|
| Composition: | 5.8 oz/sq. yd. (ASTM D-4632) |
| Grab Strength | 120 lbs (ASTM D-4533) |
| Trap Tear Strength | 600 psi (ASTM 3786) |
| Burst Strength | 150 psi (ASTM D-3787) |
| Elongation | 70%, 500 hrs (ASTM D-4632) |
| UV Resistance | 40 (ASTM D-4335) |
3. Turbidity Curtain floats shall be 6 inch diameter expanded polystyrene logs providing a minimum of 9 lbs/ft buoyancy.

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CONTRACT CONISPH2B

4. Curtain shall have 5/16 inch galvanized steel tension cable and 5/16 inch galvanized ballast chain, or approved equal.
5. Seams shall be double sewn with grommets.
6. Barrier connection shall be using marine grade quick connects.

C. Method

1. The area of proposed installation of the curtain shall be inspected for obstacles and impediments that could damage the curtain or impair its effectiveness to retain sediment.
2. All materials shall be removed at the end of construction so they do not enter the water body.
3. Shallow installations can be made by securing the curtain by staking rather than using a flotation system. Supplemental anchors of the turbidity curtain toe shall be used, as needed, depending on water surface disturbances such as boats and wave action by winds.

D. Maintenance

1. The turbidity curtain shall be inspected daily and repaired or replaced immediately.
2. When necessary, or as directed by the Engineer, sediment removal shall be done by hand prior to removal of the barrier.
3. All removed silt shall be stabilized away from the water body.
4. The barrier shall be removed by carefully pulling it toward the construction site to minimize the release of attached sediment. Any floating construction or natural debris shall be immediately removed to prevent damage to the curtain.
5. If the curtain is oriented in a manner that faces the prevailing winds, frequent checks of the anchorage shall be made.

E. Measurement and Payment

The quantity to be measured for payment under this Section shall be the total number of linear feet, provided and placed, and removed upon the

DIVISION VII - DETAILED SPECIFICATIONS -
CONTRACT CONISPH2B

completion of work, as indicated on the Contract Drawings and as directed by the Engineer.

The contract price per linear foot of turbidity curtain shall be as indicated on the BID SCHEDULE OF PRICES Item No. BMP-7.516. The bid price shall constitute full compensation for all labor, materials, equipment and work incidental thereto, necessary to complete the work in accordance with the plans and specifications to the satisfaction of the Engineer.

End of Addendum No. 6
This Addendum consists of one hundred forty (140) pages.

ATTACH TO CONTRACT DOCUMENTS

THE CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
INFRASTRUCTURE DIVISION
BUREAU OF DESIGN

PROJECT ID: CONISPH2B

FOR THE CONSTRUCTION OF STORM AND SANITARY SEWERS AND TRUNK WATER MAINS
AND APPURTENANCES IN CONEY ISLAND AREA PHASE 2B

INCLUDING WATER MAIN WORK

Together With All Work Incidental Thereto

BOROUGH OF BROOKLYN

ADDENDUM NO. 7

DATED: November 12, 2015

This Addendum is issued for the purpose of amending the requirements of the contract documents and is hereby made part of said contract documents to the same extent as if it was originally included therein.

- (1) Refer to the Bid and Contract Documents, VOLUME 1 OF 3, BID SCHEDULE, pages B-3 to B-49;
Delete all pages in their entirety;
Substitute attached revised pages B-3 (REVISION #1) to B-49 (REVISION #1).
- (2) Refer to the Contract Drawings, Sheet No. 12 of 39;
Delete Sheet No. 12 of 39 in its entirety;
Substitute with attached revised Sheet No. 12R of 39.
- (3) Add Attachment "A" as provided in this Addendum for reference for payment limits for outfall.
- (4) See attached list of QUESTIONS SUBMITTED BY BIDDERS AND RESPONSES PROVIDED BY DDC for additional information. Add reference as provided in this Addendum.

By signing in the space provided below, the bidder acknowledges receipt of the one (1) page of this Addendum plus forty-nine (49) pages of attachments and one (1) sheet of contract drawing.

THIS ADDENDUM MUST BE SIGNED BY ALL BIDDERS
AND ATTACHED TO THEIR BIDS.

Bedford Corp Construction Inc.
Name of Bidder

By: M. P. Saini

G. Saini

GURDIP SAINI, P.E.
Associate Commissioner/Design I

QUESTIONS SUBMITTED BY BIDDERS AND RESPONSES PROVIDED BY DDC

QUESTION NO. 1: How is the concrete and steel paid for in regards to the pile caps and under the water main chambers/structures?

ANSWER NO. 1: With regards to the pile caps and under the water main chambers/structures, the concrete and steel shall be paid under Item Nos. 73.21AC – ADDITIONAL CONCRETE and 73.51AS – ADDITIONAL STEEL REINFORCING BARS respectively.

QUESTION NO. 2: There were no work hours given for the intersection of Stillwell Avenue and Shore Parkway. Please advise.

ANSWER NO. 2: For the intersection of Stillwell Avenue and Shore Parkway, the stipulations shall be the same as the stipulations for Stillwell Avenue between Coney Island Creek and Surf Avenue.

QUESTION NO. 3: On Sheet 27/39, there is a detail for Steel Straps and a concrete thrust block at the 30" steel water main tie in. How is payment made for this work?

ANSWER NO. 3: Payment for steel straps and concrete thrust block shall be made under Item Nos. 65.61SS - FURNISHING, DELIVERING AND PLACING STRUCTURAL, REINFORCING AND MISCELLANEOUS STEEL and 65.51PC - FURNISHING AND PLACING CAST-IN-PLACE CONCRETE CLASS 40 AND PRECAST CONCRETE CLASS 50 respectively.

QUESTION NO.4: On sheet 12/39, the notes at the top of the page describe 3 – 20" DIP from the 48" Steel Header for the manifold. Section D-D shows 2 – 24" DIP. Please clarify.

QUESTION NO. 5: On sheet 12/39, Section D-D shows 24" DIP as the piers. The scale and writing show 1' Diameter. Please clarify.

ANSWER NOS. 4 AND 5: Refer to Article (2) of this Addendum.

QUESTION NO. 6: In Sheet 3 of 39 and Sheet 12 of 39, there is a discrepancy regarding the position of the western aircock on the 36" Steel Water Main along Neptune Avenue. The location of this aircock conflicts when the plan and profile are compared. Please clarify.

ANSWER NO. 6: For the location of the aircock, use the attached revised Sheet 12R of 39.

QUESTION NO. 7: Please clarify as to what the payment limits are for the outfall.

ANSWER NO. 7: Refer to Attachment "A" as provided in this Addendum.

QUESTION NO. 8: On Sheet 10 of 39, approximately 23 ft of new 30" Ductile Iron Pipe was shown on the plans. However, there are no items in the bid item list for furnishing or laying 30" Ductile Iron Pipe. Please clarify.

ANSWER NO. 8: Refer to Item Nos. 60.11R530 and 60.12D30 as shown in the attached revised bid sheets.

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THE CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
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PROJECT ID: CONISPH2B

FOR THE CONSTRUCTION OF STORM AND SANITARY SEWERS AND TRUNK WATER MAINS
AND APPURTENANCES IN CONEY ISLAND AREA PHASE 2B

INCLUDING WATER MAIN WORK

Together With All Work Incidental Thereto

BOROUGH OF BROOKLYN

ADDENDUM NO. 8

DATED: November 13, 2015

This Addendum is issued for the purpose of amending the requirements of the contract documents and is hereby made part of said contract documents to the same extent as if it was originally included therein.

- (1) Refer to the Bid and Contract Documents, VOLUME 1 OF 3, Page A-1, Attachment 1 - Bid Information;
Change the dates shown for Submission of Bids To: and for Bid Opening: from "November 17, 2015" to read "November 20, 2015."
- (2) Refer to the Bid and Contract Documents, VOLUME 1 OF 3, Page 13, Schedule B - MWBE;
Change the dates shown for Bid/Proposal Response Date: from "November 17, 2015" to read "November 20, 2015."

By signing in the space provided below, the bidder acknowledges receipt of the one (1) page of this Addendum.

THIS ADDENDUM MUST BE SIGNED BY ALL BIDDERS
AND ATTACHED TO THEIR BIDS.

Bedford Corp Construction Inc
Name of Bidder

By: M. K. [Signature]

G. Saini

GURDIP SAINI, P.E.
Associate Commissioner/Design I



ATTACH TO CONTRACT DOCUMENTS

THE CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
INFRASTRUCTURE DIVISION
BUREAU OF DESIGN

PROJECT ID: CONISPH2B

FOR THE CONSTRUCTION OF STORM AND SANITARY SEWERS AND TRUNK WATER MAINS
AND APPURTENANCES IN CONEY ISLAND AREA PHASE 2B

INCLUDING WATER MAIN WORK

Together With All Work Incidental Thereto

BOROUGH OF BROOKLYN

ADDENDUM NO. 9

DATED: November 17, 2015

This Addendum is issued for the purpose of amending the requirements of the contract documents and is hereby made part of said contract documents to the same extent as if it was originally included therein.

- (1) **Refer** to the Bid and Contract Documents, VOLUME 1 OF 3;
Add the attached "NOTICE TO BIDDERS" consisting of one (1) page after the cover page of the Volume 1 of 3 Bid Booklet.
- (2) **Refer** to the Bid and Contract Documents, VOLUME 2 OF 3, Standard Construction Contract;
Add the attached "PAID SICK LEAVE LAW CONTRACT RIDER" consisting of four (4) pages and the attached "HIRING AND REPORTING RIDER" consisting of three (3) pages, after the cover page of the Volume 2 of 3 Bid Booklet.
- (3) See attached list of QUESTIONS SUBMITTED BY BIDDERS AND RESPONSES PROVIDED BY DDC for additional information. Add reference as provided in this Addendum.

By signing in the space provided below, the bidder acknowledges receipt of the one (1) page of this Addendum plus nine (9) pages of attachments.

THIS ADDENDUM MUST BE SIGNED BY ALL BIDDERS
AND ATTACHED TO THEIR BIDS.

Bedford Corp Construction Inc
Name of Bidder

By: [Signature]

for Purnima Dharee
GURDIP SAINI, P.E.
Associate Commissioner/Design I





Department of
Design and
Construction

INFRASTRUCTURE DIVISION
BUREAU OF DESIGN

VOLUME 3 OF 3

PROJECT ID: CONISPH2B

FOR THE CONSTRUCTION OF STORM AND SANITARY SEWERS AND TRUNK WATER
MAINS AND APPURTENANCES IN CONEY ISLAND AREA PHASE 2B

INCLUDING WATER MAIN WORK

Together With All Work Incidental Thereto
BOROUGH OF BROOKLYN
CITY OF NEW YORK

Contractor

Dated _____, 20____
