

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: SE803

FOR THE CONSTRUCTION OF SANITARY AND STORM SEWERS AND APPURTENANCES IN RAMBLE ROAD, ETC

INCLUDING WATER MAIN WORK

Together With All Work Incidental Thereto
BOROUGH OF STATEN ISLAND
CITY OF NEW YORK

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

DECEMBER 23, 2015



Bid Tab

REVISED Description Bid Date Estimated Cost Bid Security Time Allowed		244 2460			
		CONSTRUCTION OF SANITARY AND STORM SEWERS AND APPURTENANCES IN RAMBLE ROAD, ETC- BOROUGH OF STATEN ISLAND			
		4/19/2016	FMS ID	SE-803 DEP NO	
		**\$37,014,419.00	Client Agency		
		Not less than 2% of Total Bid Price	PLA		
		910 CCD	CCD Contract Manager		
Adde	ndum	5	Project Manager	Goldenberg, Izya	
PIN		8502016SE0020C	E-PIN	85016B0108	
Selective Bidding		□Yes ⊠No	Consultant	In-House	
Bid Rank		Vendor	Bid Amount	Security Type	
1	DIFAZIO IN	ND., LLC.	\$35,292,777.7	77 Bond	
2					
4	PERFETTO INC.	CONTRACTING CO	O. \$44,430,000.0	0 Bond	
3		T REMSCO	944,430,000.0 \$45,977,145.0	- 3 - 4	
	INC. NORTHEAS	T REMSCO TION, INC	\$44,430,000.0	0 Bond	
3	INC. NORTHEAS CONSTRUCT BEDFORD/O	T REMSCO TION, INC CARP TION INC.	\$44,430,000.0 \$45,977,145.0	0 Bond 0 Bond	
3	INC. NORTHEAS CONSTRUCT BEDFORD/C CONSTRUCT JR CRUZ CO	T REMSCO TION, INC CARP TION INC.	\$44,430,000.0 \$45,977,145.0 \$47,447,447.0	0 Bond 0 Bond 7 Bond	

Recorder: Brenda Barreiro Ext. 1041 Approver Journ Holley

Bid Tab

Pin: 8502016SE0020C

Page 1 of 1



Dr. Feniosky Peña-Mora Commissioner

Charlette Hamamgian, Esq. Agency Chief Contracting Officer Lorraine Holley
Deputy ACCO
Competitive Sealed
Bid Contracts

November 18, 2016

CERTIFIED MAIL - RETURN RECEIPT REQUEST DIFAZIO IND., LLC.
38 Kinsey Place, 2nd Floor Staten Island, NY 10303

RE: FM

FMS ID: SE-803

E-PIN: 85016B0108001 DDC PIN: 8502016SE0020C

CONSTRUCTION OF SANITARY AND

STORM SEWERS AND

APPURTENANCES IN RAMBLE ROAD, ETC-BOROUGH OF STATEN ISLAND

NOTICE OF AWARD

Dear Contractor

You are hereby awarded the above referenced contract based upon your bid in the amount of \$35,292,777.77 submitted at the bid opening on April 19, 2016. 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.

Sincere

Michael Shipman **Director of Contracts**

Notice to Bidders

Compliance with HireNYC and Reporting Requirements

The Hiring and Employment Rider shall apply to contracts valued at \$1 million or more for all goods, services and construction except human services contracts that are subject to the Public Assistance Hiring Commitment Rider. The Rider describes the Hire NYC process and obligations, including reporting requirements throughout the life of the contract. The Hire NYC process requires contractors to enroll with the Hire NYC system within thirty days after the registration of the contract subject to this solicitation, to provide information regarding all entry to mid-level job opportunities arising from this contract and located in New York City, and to agree to interview qualified candidates from HireNYC for those opportunities. The Rider also includes reporting requirements unrelated to HireNYC.

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.

PRE BID QUESTIONS (PBQs)

Please be advised that PBQs should be submitted to the Agency Contact Person at least five (5) business days (by 5:00 P.M. EST) prior to the bid opening date as indicated in ATTACHMENT 1 – BID INFORMATION, page A-1 and SCHEDULE B, page 13, VOLUME 1 OF 3 of this BID BOOKLET.

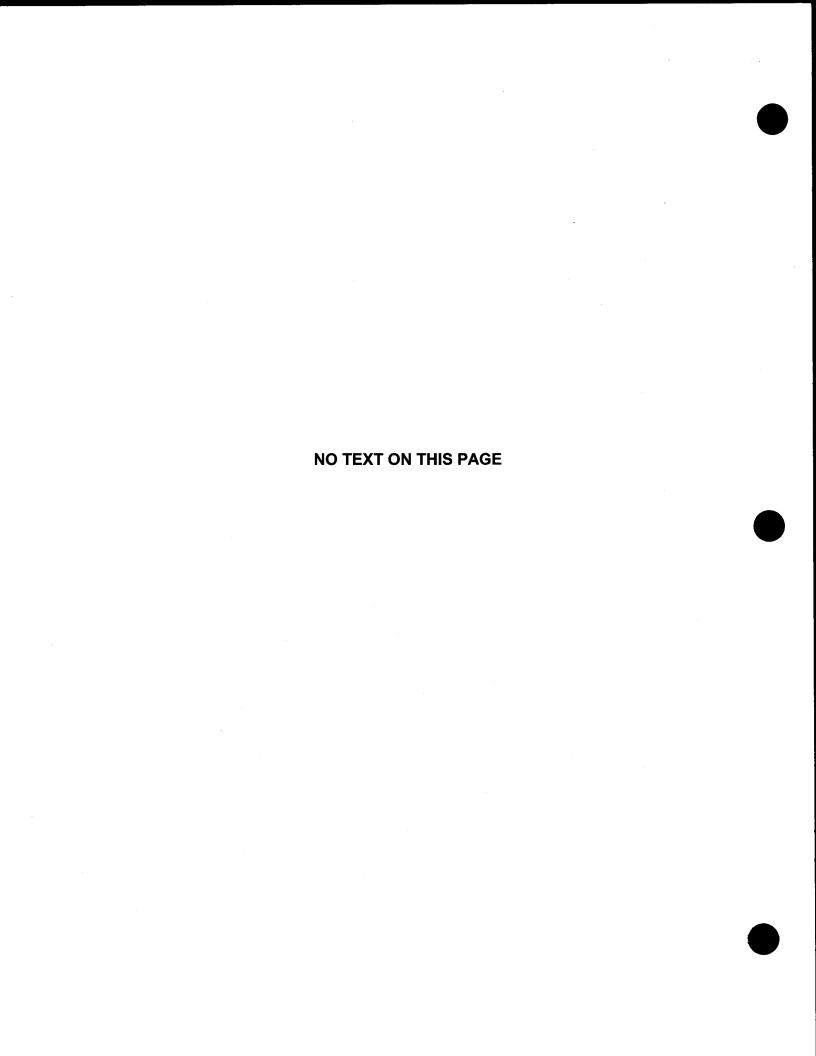
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Locations Of Work

For the Construction of Storm Sewers and Appurtenances in:
Ramble Road between Adrienne Place and Rustic Place
Hillside Terrace between Amboy Road and Rustic Place
Cleveland Avenue between Locust Place and Grandview Terrace
Brown Avenue between Amboy Road and Locust Place
Nelson Avenue between Amboy Road and Rustic Place
Amboy Road between Adrienne Place and Nelson Avenue
Adrienne Place between Ramble Road and Hillside Terrace
Locust Place between Hillside Terrace and Nelson Avenue
Rustic Place between Hillside Terrace and Nelson Avenue
Grandview Terrace between Hillside Terrace and Dead End
Monticello Terrace between Cleveland Avenue and Nelson Avenue

For the Construction of Sanitary Sewers and Appurtenances in:
Ramble Road between Adrienne Place and Dent Road
Hillside Terrace between Amboy Road and Rustic Place
Cleveland Avenue between Locust Place and Grandview Terrace
Brown Avenue between Amboy Road and Locust Place
Nelson Avenue between Amboy Road and Rustic Place
Amboy Road between Adrienne Place and Seely Lane
Adrienne Place between Ramble Road and Hillside Terrace
Locust Place between Hillside Terrace and Nelson Avenue
Rustic Place between Hillside Terrace and Nelson Avenue
Grandview Terrace between Hillside Terrace and Dead End
Monticello Terrace between Cleveland Avenue and Nelson Avenue

For the Installation Of Distribution Water Mains in:
Amboy Road between Seely Lane and Brown Avenue
Nelson Avenue between Amboy Road and Monticello Terrace
Cleveland Avenue between Locust Place and Monticello Terrace
Brown Avenue between Amboy Road and Locust Place
Hillside Terrace between Amboy Road and Rustic Place
Locust Place between Nelson Avenue and Hillside Terrace
Grandview Terrace between Nelson Avenue and Hillside Terrace
Monticello Terrace between Nelson Avenue and Hillside Terrace
Dent Road between Hillside Terrace and Ramble Road



CITY OF NEW YORK

DEPARTMENT OF DESIGN AND CONSTRUCTION DIVISION OF INFRASTRUCTURE

BID BOOKLET

FOR FURNISHING ALL LABOR AND MATERIALS NECESSARY AND REQUIRED FOR:

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INCLUDING WATER MAIN WORK

Together With All Work Incidental Thereto BOROUGH OF STATEN ISLAND

PROJECT ID: SE803

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

BID BOOKLET

TABLE OF CONTENTS

SECT	TION	
PART	A	
1.	Table of Contents	1
2.	Special Notice to Bidders	2
3.	Attachment 1 – Bid Information	A- 1
4.	Bid Schedule	B- 1
5.	Bid Form	C-1
6.	Affirmation	C-6
7.	Bid Bond	C-7
8.	M/WBE Program: M/WBE Utilization Plan	5
9.	Apprenticeship Program Requirements	19
PART	В	
10.	Safety Questionnaire	21
11.	Pre-award Process.	24
12.	Project Reference Form	26
13.	Contract Certificate	29
14.	Vendex Compliance	30
15.	Iran Divestment Act Compliance Rider	31
16.	Construction Employment Report	33

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) <u>VENDEX QUESTIONNAIRES</u>: The Bidder is advised that Vendex Questionnaires and procedures have been changed. Vendex Questionnaires, as well as detailed instructions, may be obtained at <u>www.nyc.gov/vendex</u>. The bidder may also obtain Vendex forms and instructions by contacting the Agency Chief Contracting Officer or the contact person for this contract.
- (4) <u>SPECIAL EXPERIENCE REQUIREMENTS</u>: 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 (11).

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

3

work must, within the last five (5) consecutive years prior to the bid opening, have successfully

(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 (11).

The Special Experience Requirements set forth below apply to the contractor, subcontractor or subsubcontractor 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 subsubcontractor.

- 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 corriges in connection with Departing and Manifesting West, (1) d al

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 Professiona
Engineer licensed by the state of New York. Such individual must also comply with the above requirements for prior projects.
OTHER:

- (C) <u>SPECIFICATIONS</u>: 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) <u>SUBMISSION REQUIREMENTS</u>: 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) <u>CONDITIONS</u>: 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) <u>JOINT VENTURES</u>: 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:

ATTACHMENT 1 - BID INFORMATION

PROJECT ID: SE803 PIN: 8502016SE0020C

Description and Location of	Work: For The Construction Of Sanitary And Sto Appurtenances In Ramble Road, Etc. Including Wa Together With All Work Incidental Thereto, Borough O	iter Main Work
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 March 29, 2016	
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 March 29, 2016	
Pre-Bid Conference:	Yes NoX	_
	If Yes, Mandatory: Optional: Time and Date: Location:	
securit	curity is required in the amount set forth below; provided, y is not required if the TOTAL BID PRICE set forth on the an \$1,000,000.00.	however, bid e Bid Form is
(1)	Bond in an amount not less than 10% of the TOTAL BID	PRICE set
(2)	forth on the Bid Form, OR Certified Check in an amount not less than 2% of the TO PRICE set forth on the Bid Form.	TAL BID
Performance and Payment Security and Payment Price.	rity: Required for contracts in the amount of \$1,000,000 conent Security shall each be in an amount equal to 100% of	or more. the Contract
Agency Contact Person:	Lorraine Holley Phone: 718-391-2601 FAX: 718-391-2615	
CITY OF NEW YORK DEPARTMENT OF DESIGN AND CONS	A-1 TRUCTION	BID BOOKLET DECEMBER 2013

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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 Revisions To The New York City Department Of Transportation Standard Highway Specifications and Sewer And Water Main Revisions To Specifications, 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 Specifications For Handling, Transportation And Disposal Of Nonhazardous And Potentially Hazardous Contaminated Materials, 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 Sewer And Water Main Revisions To Specifications, 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 Sewer And Water Main Revisions To Specifications, 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 Sewer And Water Main Revisions To Specifications, 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 Gas Cost Sharing (EP-7) Standard Specifications, 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 Specifications For Construction Of Best Management Practice (Bmp) And Mitigation Area, herein Volume 3 of 3.

Project ID: SE803

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: SE803

FOR THE CONSTRUCTION OF SANITARY AND STORM SEWERS AND APPURTENANCES IN RAMBLE ROAD, ETC

INCLUDING WATER MAIN WORK

Together With All Work Incidental Thereto BOROUGH OF STATENUS AND

BOROUGH OF STATENYSLAND	
Name of Bidder: Difazio Industries	
Date of Bid Opening: 4-19-2016.	
Bidder is: (Check one, whichever applies) Individual () Partnership ()	Companie
Place of Business of Bidder: 38 Kinsey Dace	Corporation (K) ten tslend My
Bidder's Telephone Number: 718-720-6966 Fax Number: 718-8	716-568-9
Bidder's E-Mail Address: juhn de diferzioind	net.
Residence of Bidder (If Individual):	4
If Bidder is a Partnership, fill in the following blanks:	
Names of Partners Residence of I	Partners
If Bidder is a Corporation, fill in the following blanks:	
Organized under the laws of the State of	
Name and Home Address of President:	
7 londerosa Prive Colts Nec	LNT
Name and Home Address of Secretary:	
- 415 Parlington Are Staten Este	nd NV
Name and Home Address of Treasurer: Joff Differed	
CITY OF MENU YOU	٠(
CITY OF NEW YORK C-1 DEPARTMENT OF DESIGN AND CONSTRUCTION	BID BOOKLET DECEMBER 2013

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: SE803

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:

(If none, the bidder shall insert the word "None" in the space provided above.)
provided above.
Full Name of Bidder: Difazio Ind. LLC Address: 38 Kinese Al
City Staten toland State Ny Zip Code 10303.
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
73 (70, 6369)
Ву:
Signature Title:

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.

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: Di Fazio Industries
Name of Project: Sheldon Are SERIA
Location of Project: Statism Island W.
Owner or Owner's representative (Architect or Engineer) who is familiar with the work performed:
Name: 1720m Alvess
Title: Borough Prector Phone Number: 718-3911-1110
Brief description of the Project completed or the Project in progress: Leconstruction 6 Sences & waterness, Loudens 3MD.
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: 2/15 - 6/2017

Name of Contractor: Different Industries
Name of Project: South fail road
Location of Project: States Island NY.
Owner or Owner's representative (Architect or Engineer) who is familiar with the work performed:
Name: Alweiss
Title: boreval fire du Phone Number: 18-391-1110
Brief description of the Project completed or the Project in 1
L'atemain E land all
) (111/1)
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: 2012 — 2014
CITY OF NEW YORK



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

CONTRACT PIN: 8502016SE0020C

PROJECT ID: SE803

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 # 2] Through B - 44 [REVISION # 2]

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.

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

PROJECT ID: SE803

CONTRACT PIN: 8502016SE0020C

COL. 1	COL. 2	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4	COL. 5 UNIT: PRICE (IN FIGURES) DOLLARS	стѕ	JAMES DOLD II TO THE PARTY OF T	CTS
Q. NO 001	4.01 RAG ASPHALT MACADAM PAVEMENT, 6" THICK	36,790.00	S.Y.	50	o 0	1,839,500	00
002	4.02 AB-R ASPHALTIC CONCRETE WEARING COURSE, 1-1/2" THICK	2,260.00	S.Y.	28	60	63,280	00
003	4.02 CA BINDER MIXTURE	580.00	TONS	350	00	203,000	00
004	4.04 H CONCRETE BASE FOR PAVEMENT, VARIABLE THICKNESS FOR TRENCH RESTORATION, (HIGH-EARLY STRENGTH)	305.00	C.Y.	360	00	109,800	00
005	4.05 AX HIGH-EARLY STRENGTH REINFORCED CONCRETE PAVEMENT (BUS STOPS)	120.00	C.Y.	450	60	54,000	6
006	4.08 AA CONCRETE CURB (18" DEEP)	17,525.00	L.F.	38	00	665,950	00



PROJECT ID: SE803

CONTRACT PIN: 8502016SE0020C

COL.1	COL.2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COLA	COL.5 UNIT PRICE (IN FIGURES)	COL 6 EXTENDED AMOUNT (INFIGURES)	
007	4.09 AD STRAIGHT STEEL FACED CONCRETE CURB (18" DEEP)	2,850.00	L.F.	DOLLARS 58	CTS OO	165,300	O C
008	4.09 AE STRAIGHT STEEL FACED CONCRETE CURB (21" DEEP)	150.00	L.F.	60	00	9,000	οĊ
009	A.09 CD CORNER STEEL FACED CONCRETE CURB (18" DEEP)	1,330.00	L.F.	125	00	166,250	00
010	4.09 CE CORNER STEEL FACED CONCRETE CURB (21" DEEP)	200.00	L.F.	127	5 0	25,400	00
011	4.13 AAS 4" CONCRETE SIDEWALK (UNPIGMENTED)	97,735.00	S.F.	9	00	879,615	60
012	4.13 BAS 7" CONCRETE SIDEWALK (UNPIGMENTED)	15,870.00	S.F.	10	00	158,700	00

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

PROJECT ID: SE803

CONTRACT PIN: 8502016SE0020C

COL. 1	COL 2	COL 3. ENGINEER'S ESTIMATE	COL-4	COL 5 UNIT PRICE (IN FIGURES)		COL.6 EXTENDED:AMOUNT. (IN FIGURES)
SEQ. NO	ITEM NUMBER and DESCRIPTION	OF QUANTITIY	UNIT	DOLLARS	CTS	DOLLARS CTS
013	4.13 DE EMBEDDED PREFORMED DETECTABLE WARNING UNITS	920.00	S.F.	24	GΟ	22,080 00
014	4.16 AA TREES REMOVED (4" TO UNDER 12" CALIPER)	6.00	EACH	365	00	2,190000
015	4.16 AB TREES REMOVED (12" TO UNDER 18" CALIPER)	4.00	EACH	610	00	2,440 00
016	4.16 AC TREES REMOVED (18" TO UNDER 24" CALIPER)	2.00	EACH	975	00	1,950 00
017	4.16 BA510 TREES PLANTED, 2-1/2" TO 3" CALIPER, ALL TYPES, IN 5' X 10' TREE PITS	120.00	EACH	1650	00	198,000 00
018	4.18 A MAINTENANCE TREE PRUNING (UNDER 12" CAL.)	165.00	EACH	lis	00	18,975 00
					:	



PROJECT ID: SE803

CONTRACT PIN: 8502016SE0020C

COL.1 SEQ. NO	COL 2 ITEM NUMBER and DESCRIPTION	COL.3 ENGINEERS ESTIMATE OF QUANTITY	COL 4	COL 5 UNIT PRICE (IN FIGURES)	COL 6 EXTENDED AMOUNT (IN FIGURES)	Sign
019	4.18 B MAINTENANCE TREE PRUNING (12" TO UNDER 18" CAL.)	70.00	EACH	DOLLARS 140		A STATE OF THE STA	် (TS
020	4.18 C MAINTENANCE TREE PRUNING (18" TO UNDER 24" CAL.)	6.00	EACH	١٦٤	00	1050	۵0
021	4.18 D MAINTENANCE TREE PRUNING (24" CAL. AND OVER)	32.00	EACH	215	00	6,880	00
022	4.19 SODDING	2,260.00	S.Y.	18	60	40,680	00
023	4.21 TREE CONSULTANT	4,000.00	P/HR	65	60	260,000	00
024	50.11MS040026 4'-0"W X 2'-6"H SINGLE BARREL FLAT TOP REINFORCED CONCRETE STORM SEWER	245.00	L.F.	3∞	oပ	73,500	00

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

PROJECT ID: SE803

CONTRACT PIN: 8502016SE0020C

COL. 1	COL 2	COL: 3 ENGINEERS ESTIMATE	COL-4	COL:5 UNIT PRICE (IN FIGURES)		COL. 8 EXTENDED AMOUNT (IN FIGURES)
SEQ. NO	ITEM NUMBER and DESCRIPTION	OF QUANTITIY	UNIT	DOLLARS	CTS:	DOLLARS CTS
025	50.21M3C024D 24" R.C.P. CLASS III STORM SEWER, ON CONCRETE CRADLE	580.00	L.F.	250	6 0	145,000 00
026	50.21M3C030D 30" R.C.P. CLASS III STORM SEWER, ON CONCRETE CRADLE	345.00	L.F.	290	00	100/050 00
027	50.21M3C045W 45"W X 29"H R.C.P. CLASS HE-III STORM SEWER, ON CONCRETE CRADLE	280.00	L.F.	390	00	109,200 00
028	50.21M3E024D 24" R.C.P. CLASS III STORM SEWER, ENCASED IN CONCRETE	340.00	L.F.	240	ල 0	81,600 00
029	50.21M3E030D 30" R.C.P. CLASS III STORM SEWER, ENCASED IN CONCRETE	840.00	L.F.	260.	OC	218,400 00
030	50.21M3E042D 42" R.C.P. CLASS III STORM SEWER, ENCASED IN CONCRETE	305.00	L.F.	335	00	102/175 00



PROJECT ID: SE803

CONTRACT PIN: 8502016SE0020C

COL.1 SEQ. NO	COL. 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEERS ESTIMATE OF QUANTITY	COL 4	COL. 5 UNIT PRICE (IN FIGURES) DOLLARS		COL.6 EXTENDED AMOUNT (IN FIGURES) DOLLARS CTS
031	50.31MC12 12" E.S.V.P. STORM SEWER, ON CONCRETE CRADLE	1,365.00	L.F.		පට	286,650 00
032	50.31MC15 15" E.S.V.P. STORM SEWER, ON CONCRETE CRADLE	1,070.00	L.F.	225	<i>6</i> 0	240,750 00
033	50.31MC18 18" E.S.V.P. STORM SEWER, ON CONCRETE CRADLE	2,000.00	L.F.	235	ಶಲ	470,000 00
034	50.31ME12 12" E.S.V.P. STORM SEWER, ENCASED IN CONCRETE	500.00	L.F.	190	OO	95,000 00
035	50.31ME15 15" E.S.V.P. STORM SEWER, ENCASED IN CONCRETE	340.00	L.F.	235	٥٥	79,900 03
036	50.31ME18 18" E.S.V.P. STORM SEWER, ENCASED IN CONCRETE	180.00	L.F.	700	60	126,00000

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

PROJECT ID: SE803

CONTRACT PIN: 8502016SE0020C

COL. 1	COL. 2	COL 3 ENGINEER'S ESTIMATE	COL/4	COL 5 UNIT PRICE (IN FIGURES)	COL 6 EXTENDED AMOUNT (IN FIGURES)
SEQ. NO	ITEM NUMBER and DESCRIPTION	OF QUANTITY	UNIT	DOLLARS CTS	DOLLARS CTS
037	50.31SC10 10" E.S.V.P. SANITARY SEWER, ON CONCRETE CRADLE	9,610.00	L.F.	278 00	2,671,58000
038	50.31SC12 12" E.S.V.P. SANITARY SEWER, ON CONCRETE CRADLE	480.00	L.F.	425 00	204,000 00
039	50.31SE10 10" E.S.V.P. SANITARY SEWER, ENCASED IN CONCRETE	135.00	L.F.	1/500 00	202/500 00
040	50.31SE12 12" E.S.V.P. SANITARY SEWER, ENCASED IN CONCRETE	405.00	L.F.	525 00	212/625 00
041	50.31SE15 15" E.S.V.P. SANITARY SEWER, ENCASED IN CONCRETE	1,390.00	L.F.	370 00	514,30000
042	50.41S6C10 10" D.I.P. CLASS 56 SANITARY SEWER, ON CONCRETE CRADLE	30.00	L.F.	70000	21,00000



200/00 00	60	100000	ЕУСН	2.00	S1.11R008 STANDARD 8'-0" DIAMETER PRECAST DROP-PIPE MANHOLE TYPE II	810
00 000 1001	00	100/001	EACH	00.1	OFOGFF.FG STANDARD 10:-0" DIAMETER PRECAST MANHOLE	41 0
24,00000	00	15,000	EACH	00.S	S111P005 STANDARD 5'-0" DIAMETER PRECAST MAUHOLE	91⁄0
00 000/001	೧೯	000 1001	EACH	00.1	СНАМВЕ В ИО: 5 21.11С005	9†0
00 000/051	00	000/051	EACH	00.1	сн у мве <i>в</i> ио з 21.11С001	044
CO OG STOS	0 0	SLS.	'-E'	240.00	50.4156516 16" D.I.P. CLASS 56 SAUITARY SEWER, ON CRUSHED STONE BEDDING	640
(,IN FIGNKES.) EXTENDED AMOUNT COL. 6		COL.5 WIT PRICE WIN FIGURES	ONIL COF V	OE GOVALILA ESTIMATE COL 3	LEM NUMBER BUG DESCRIPTION COL. 2	RECTION OF COPTION

BID SCHEDNTE LOBW

DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN

NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION

CONTRACT PIN: 8502016SE0020C

PROJECT ID: SE803

BID SCHEDNTE FORM

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

STANDARD MANHOLE TYPE C-1 ON 42" R.C.P. SEWER 00 000/52 00 000/52 190 51.21S0C1042R **EACH** 3.00 STANDARD MANHOLE TYPE B-2 eo 000/52L 00 000/50 51.21S0B2000V 023 **EACH** 29.00 STANDARD MANHOLE TYPE 8-1 00 000 524 00 000 52 025 51.21S0B1000V **EACH** 17.00 STANDARD SHALLOW MANHOLE TYPE A-3 00 000/SLE 00 000/SZ V0005A021S.13 LSO **EACH** 15.00 000/52 QQ 00 00057 STANDARD MANHOLE TYPE A-2 090 00.r V000SA021S.13 **EACH** 1-A 39YT 3JOHNAM QRADNATS 0000181 1,260/000000 640 **EACH** V000fA02f2.f3 70.00 SEO NO ILEM NUMBER and DESCRIPTION YTTITUAUD 70 LINN. DOLLARS DOLLARS STO: **ESTIMATE** (IN FIGURES) (IN FIGURES) JUNIT PRICE **ENGINEELS** EXTENDED AMOUNT COF 1 COF 1 COL 2 COF 3 COL. 6 COLS

CONTRACT PIN: 8502016SE0020C

PROJECT ID: SE803



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090	51.415001 STANDARD CATCH BASIN, TYPE 1	00.08	ЕРСН	005/7	00	369,000	00
690	F1.41D001 STANDARD DOUBLE CATCH BASIN, TYPE 1	2.00	EACH	50000	00	000,04	00
890	51.31500215. STANDARD DROP-PIPE MANHOLE TYPE II ON 15" E.S.V.P. SEWER	5.00	EACH	100 lo o' o	ဇ ဝ	200 1005	90
490	51.315002125 F1.315002125 STANDARD DROP-PIPE MANHOLE TYPE II ON 12" E.S.V.P. SEWER	00.1	EACH	0001001	00	0001001	င္ဝ
026	V00100212.12 I 39YT 3J0HNAM 3919-9080 08AQNAT2	2.00	EACH .	000,001	00	200 000	00
022	51.21S0E1045H STANDARD MANHOLE TYPE E-1 ON 45"W X 29"H H.E.R.C.P. SEWER	00.r	Е∀СН			000752	C O
SEO NO	NAME OF THE PARTY	ENGINEER'S ESTIMATE OF QUANTITY	TINU	DOFFARS (IN HIGHES ANIL SKICE COF 2		COL. 6.	<u> 317 "</u>

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CONTRACT PIN: 8502016SE0020C

PROJECT ID: SE803

DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN

DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN

[REVISION # 2]

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	000	8" E.S.V.P. RISER FOR HOUSE CONNECTION					- , l	
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1								
		8" DUCTILE IRON PIPE RISER FOR HOUSE CONNECTION						
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		15" DUCTILE IRON PIPE BASIN CONNECTION	·					
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		STANDARD CATCH BASIN, TYPE 2			•		• •	
)	190	51.415002	00.1	EACH	12000	100	1 - 0 1 - 1	
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<u> </u>	ા ગ	COL2	E 700	COFT	9 100		COF: 6	

BID SCHEDNCE FORM

DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN

NEW YORK CITY DEPARTMENT OF DESIGN

MA 00:ST 810S/4/\4

CONTRACT PIN: 8502016SE0020C

PROJECT ID: SE803

DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN

NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION

CONTRACT PIN: 8502016SE0020C

BID SCHEDNTE LOGW

		T	1				:
	NEW 6" E.S.V.P. HOUSE CONNECTION DRAIN ON CONCRETE Unit price bid shall not be greater than: \$ 75.00	00.010,1	.a.u	o /	04	00 1/07	00
270	52.41V06N						
1	6" D.I.P. HOUSE CONNECTION DRAIN ON CONCRETE CRADLE (RECONNECTION)	32.00	'E''	0 <u>5</u>	10	05L1	58
040	52.31V06515 6" E.S.V.P. SPUR FOR HOUSE CONNECTION ON 15" E.S.V.P. SANITARY SEWER	32.00	E∀CH	00 b	с <i>о</i>	005/15	0 8
020	27307(12.53						
690	52.31V06512 6" E.S.V.P. SPUR FOR HOUSE CONNECTION ON 12" E.S.V.P. SANITARY SEWER	13.00	EACH	SZS	00	52819	20
890	52.31V06510 6" E.S.V.P. SPUR FOR HOUSE CONNECTION ON 10" E.S.V.P. SANITARY SEWER	194.00	ЕАСН	o25	00	088/00/	00
۷90	52.31D06516 6" DUCTILE IRON PIPE SPUR FOR HOUSE CONNECTION ON 16" D.L.P. SANITARY SEWER	00.8	ЕУСН	005	୦କ	0021	o co
ON DE	TIEM NUMBER and DESCRIPTION	ESTIMATE OF QUANTITY	JNU	(IN EIGURES		DOFFARSON	od vervije. Sevili Livo
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[KEVISION # 2] B - 15

[REVISION # 2]

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נסר" ג		ENGINEER'S		UNIT PRICE		EXTENDED AMOUNT	ing specification of the speci
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BID SCHEDNCE FORM

DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN

DEVISION OF INFRASTRUCTURE - BUREAU OF DESIGN

MA 00:ST 8102\4/\4

CONTRACT PIN: 8502016SE0020C

PROJECT ID: SE803



PROJECT ID: SE803

CONTRACT PIN: 8502016SE0020C

COL 1 SEQ. NO	COL. 2 FTEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4	COL 5 UNIT PRICE (IN FIGURES)	12.7	COL: 6 EXTENDED/AMOUNT (IN FIGURES)
079	6.40 D ENGINEER'S FIELD OFFICE (TYPE D)	42.00	MONTH	15,000	CTS O O	630,000 00
080	6.44 THERMOPLASTIC REFLECTORIZED PAVEMENT MARKINGS (4" WIDE)	9,200.00	L.F.	l	0 0	9,20000
081	6.49 TEMPORARY PAVEMENT MARKINGS (4" WIDE)	13,500.00	L.F.	ĺ	oο	13,500 0
082	6.52 CG CROSSING GUARD	12,680.00	P/HR	20	οJ	253/600 00
083	6.53 REMOVE EXISTING LANE MARKINGS (4" WIDE)	8,400.00	L.F.	1	Ge	8,40000
	6.67 SUBBASE COURSE, SELECT GRANULAR MATERIAL	6,140.00	C.Y.	32	@O	196,480 00

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

PROJECT ID: SE803

CONTRACT PIN: 8502016SE0020C

COL. 1	COL: 2	COL.3 ENGINÉER'S ESTIMATE	GOL 4	COL 5 UNIT PRICE (IN FIGURES)	COL. 6 EXTENDED AMOUNT (IN FIGURES)
SEQ. NO	ITEM NUMBER and DESCRIPTION	OF QUANTITIY	UNIT	DOLLARS CTS	
085	6.68 PLASTIC FILTER FABRIC	78,760.00	S.Y.	0.4	31,504 00
086	6.87 PLASTIC BARRELS	17,700.00	EACH	1 25	22/125 00
087	60.11R520 FURNISHING AND DELIVERING 20-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 55)	1,160.00	L.F.	300 00	348/60000
088	60.11R606 FURNISHING AND DELIVERING 6-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 56)	430.00	L.F.	6500	27,95000
089	60.11R608 FURNISHING AND DELIVERING 8-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 56)	8,130.00	L.F.	150 0	1219/5000
090	60.11R612 FURNISHING AND DELIVERING 12-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 56)	2,100.00	L.F.	225 0	0 472,500 00



PROJECT ID: SE803

CONTRACT PIN: 8502016SE0020C

COL. 1 SEQ. NO	COL. 2 TTEM NUMBER and DESCRIPTION	COL.3 ENGINEER'S ESTIMATE OF QUANTITY	COL.4	COL. 5 UNIT PRICE (IN FIGURES)		COL: 6 EXTENDED AMOUNT (IN FIGURES)
091	60.12D06 LAYING 6-INCH DUCTILE IRON PIPE AND FITTINGS	485.00	L.F.		CIS COO	BOLLARS CT
092	60.12D08 LAYING 8-INCH DUCTILE IRON PIPE AND FITTINGS	8,730.00	L.F.	125.0	טו	1/091/25000
093	60.12D12 LAYING 12-INCH DUCTILE IRON PIPE AND FITTINGS	2,265.00	L.F.	250 0	00	566/250 00
094	60.12D20 LAYING 20-INCH DUCTILE IRON PIPE AND FITTINGS	1,250.00	L.F.	350 o	00	437,500 00
	60.13M0A24 FURNISHING AND DELIVERING DUCTILE IRON MECHANICAL JOINT 24 -INCH DIAMETER AND SMALLER FITTINGS, INCLUDING WEDGE TYPE RETAINER GLANDS	30.00	TONS	10,000 0	0	3001000 00

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

PROJECT ID: SE803

CONTRACT PIN: 8502016SE0020C

COL.1	COL. 2	COL 3 ENGINEER'S ESTIMATE	COL 4 UNIT	COL. 5 UNIT PRICE (IN FIGURES) DOLLARS CTS	COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS CTS
SEQ. NO:	61.11DMM06 FURNISHING AND DELIVERING 6-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	OF QUANTITY 48.00	EACH	1,065 00	
097	61.11DMM08 FURNISHING AND DELIVERING 8-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	35.00	EACH	1/655 00	57,925 00
098	61.11DMM12 FURNISHING AND DELIVERING 12-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	10.00	EACH	3,000 00	30,000 00
099	61.11DMM20 FURNISHING AND DELIVERING 20-INCH MECHANICAL JOINT DUCTILIIRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	5.00	EACH	20,00000	100,000 00
100	61.11TWC04 FURNISHING AND DELIVERING 4-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	8.00	EACH	42000	9,600 00



PROJECT ID: SE803

CONTRACT PIN: 8502016SE0020C

COL.1	COL. 2 ITEM NUMBER and DESCRIPTION	COL. 3 ENGINEER'S ESTIMATE OF QUANTITY	COL.4	COL. 5 UNIT PRICE ('IN FIGURES)	EXTENDED AMOUNT (IN FIGURES)	(SC)* PSP (SC)
101	61.11TWC06 FURNISHING AND DELIVERING 6-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	10.00	EACH	1350 HVS	100	DOLLARS 13, 500	©TS
102	61.11TWC08 FURNISHING AND DELIVERING 8-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	10.00	EACH	1	00	10	00
103	61.11TWC10 FURNISHING AND DELIVERING 10-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	10.00	EACH	\	00	10	00
104	61.11TWC12 FURNISHING AND DELIVERING 12-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	10.00	EACH		00	10	00
I	61.12DMM06 SETTING 6-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	48.00	EACH	1	00	48	00
l	61.12DMM08 SETTING 8-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	35.00	EACH	\	00	35	00

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

PROJECT ID: SE803

CONTRACT PIN: 8502016SE0020C

COL.1	COL. 2	COL:3 ENGINEER'S ESTIMATE	COL∙4	COL 5 UNIT PRICE (IN FIGURES)		COL. 6 EXTENDED AMOUNT. (IN FIGURES.)		
SEQ. NO	ITEM NUMBER and DESCRIPTION	OF QUANTITIY	UNIT	DOLLARS	CTS	DOLLARS	стѕ	
107	61.12DMM12 SETTING 12-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	10.00	EACH	\	00	\0	00	
108	61.12DMM20 SETTING 20-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	5.00	EACH	\	00	5	00	
109	61.12TWC04 SETTING 4-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	8.00	EACH	\	00	8	00	
110	61.12TWC06 SETTING 6-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	10.00	EACH	1	00	10	00	
111	61.12TWC08 SETTING 8-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS.	10.00	EACH		00	\0	00	
112	61.12TWC10 SETTING 10-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	10.00	EACH	\	00	\0	00	



PROJECT ID: SE803

CONTRACT PIN: 8502016SE0020C

COL.4 SEQ: NO	COL. 2 TEM NUMBER and DESCRIPTION:	COL.3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4	COL 5 UNIT PRIC (IN FIGURE	E S)	COL: 6 EXTENDED AMOUN ('IN FIGURES)	и <u>;</u>
113	61.12TWC12 SETTING 12-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	10.00	EACH	DOLLARS	OO	DOLLARS	оо О
114	62.11SD FURNISHING AND DELIVERING HYDRANTS	48.00	EACH	5,000	00	240,000	00
115	62.12SG SETTING HYDRANTS COMPLETE WITH WEDGE TYPE RETAINER GLANDS	48.00	EACH	5,000	00	240,000	00
116	62.13RH REMOVING HYDRANTS	33.00	EACH	2,000	00	66,000	00
	62.14FS FURNISHING, DELIVERING AND INSTALLING HYDRANT FENDERS	96.00	EACH	400	00	38,400	00
	63.11VC FURNISHING AND DELIVERING VARIOUS CASTINGS	76.00	TONS	0	ol	0	76

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

PROJECT ID: SE803

CONTRACT PIN: 8502016SE0020C

COL 1	COL. 2	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL.4 UNIT	COL. 5 UNIT PRICE (IN FIGURES)		COL. 6 EXTENDED AMOUNT (IN FIGURES)	
SEQ. NO	ITEM NUMBER and DESCRIPTION			DOLLARS	CTS:	DOLLARS	CTS
119	64.11EL WITHDRAWING AND REPLACING HOUSE SERVICES USING 1-1/2-INCH OR LARGER SCREW TAPS	55.00	EACH	200	00	11,000	00
120	64.11ST WITHDRAWING AND REPLACING HOUSE SERVICES USING SMALLER THAN 1-1/2-INCH SCREW TAPS	110.00	EACH	140	00	15, 400	00
121	64.12COEG CUTTING AND OFFSETTING HOUSE SERVICE WATER CONNECTIONS (EQUAL TO OR GREATER THAN 3-INCH DIAMETER)	125.00	L.F.	100	00	12,500	00
122	64.12COLT CUTTING AND OFFSETTING HOUSE SERVICE WATER CONNECTIONS (LESS THAN 3-INCH DIAMETER)	145.00	L.F.	100	00	14,500	00
123	64.12ESEG EXTENDING HOUSE SERVICE WATER CONNECTIONS (EQUAL TO OR GREATER THAN 3-INCH DIAMETER)	130.00	L.F.	100	00	13,000	00
124	64.12ESLT EXTENDING HOUSE SERVICE WATER CONNECTIONS (LESS THAN 3-INCH DIAMETER)	195.00	L.F.	\00	00	19,500	00



PROJECT ID: SE803

CONTRACT PIN: 8502016SE0020C

COL 1	COL-2	COLIS ENGINEER'S ESTIMATE	COL.4	COL 5 UNIT PRICE (IN FIGURES	Land Contract Contract	COL.6 EXTENDED AMOUNT (IN FIGURES)	
125	ITEM NUMBER and DESCRIPTION 64.13WC08	OF QUANTITIY	UNIT		CTS		· · CTS
123	FURNISHING, DELIVERING AND INSTALLING WET CONNECTION SLEEVE ON 8-INCH WATER MAIN PIPE WITH VARIOUS OUTLETS	16.00	EACH	\	00	16	00
126	64.13WC12 FURNISHING, DELIVERING AND INSTALLING WET CONNECTION SLEEVE ON 12-INCH WATER MAIN PIPE WITH VARIOUS OUTLETS	16.00	EACH	\	00	\6	00
127	64.13WC20 FURNISHING, DELIVERING AND INSTALLING WET CONNECTION SLEEVE ON 20-INCH WATER MAIN PIPE WITH VARIOUS OUTLETS	16.00	EACH	\	00	\6	00
128	65.11BR FURNISHING, DELIVERING AND INSTALLING BANDS, RODS, WASHERS, ETC., COMPLETE, FOR RESTRAINING JOINTS	630.00	LBS.	0	ol	6	30
129	65.21PS FURNISHING AND PLACING POLYETHYLENE SLEEVE Unit price bid shall not be less than: \$ 0.50	5,870.00	L.F.	0	50	2,935	00
	65.31FF FURNISHING, DELIVERING AND PLACING FILTER FABRIC Unit price bid shall not be less than: \$ 0.10	92,880.00	S.F.	0	10	9,288	00

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

PROJECT ID: SE803

CONTRACT PIN: 8502016SE0020C

COL.1	COL. 2	COLE 3 ENGINEER'S ESTIMATE 3 OF QUANTITY - 1	GOL 4 UNIT	COL: 5 UNIT: PRICE (IN FIGURES)		COL. 6 EXTENDED/AMOUNT (IN FIGURES)	
SEQ. NO	ITEM NUMBER and DESCRIPTION			- DOLLARS	CTS	DOLLARS	стѕ
131	65.71SG FURNISHING, DELIVERING AND PLACING SCREENED GRAVEL OR SCREENED BROKEN STONE BEDDING	390.00	C.Y.	35	00	13, 650	00
132	7.13 B MAINTENANCE OF SITE Unit price bid shall not be less than: \$ 14,000.00	36.00	MONTH	20,000	00	720,000	00
133	7.19 LOAD TRANSFER JOINT	515.00	L.F.	9	00	4,635	60
134	7.36 PEDESTRIAN STEEL BARRICADES	35,300.00	L.F.	7	00	247,100	00
135	7.88 AA RODENT INFESTATION SURVEY AND MONITORING Unit price bid shall not be less than: \$ 15,800.00	1.00	L.S.	20,000	00	20,000	00
136	7.88 AB RODENT BAIT STATIONS Unit price bid shall not be less than: \$69.00	2,520.00	EACH	69	00	173,880	00



PROJECT ID: SE803

CONTRACT PIN: 8502016SE0020C

COL.1 SEQ.NO	COL, 2 TEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4	COL 5 UNIT PRICE (IN FIGURES) DOLLARS CTS		COL:6 EXTENDED AMOUNT (IN FIGURES) DOLLARS CTS		
137	7.88 AC BAITING OF RODENT BAIT STATIONS Unit price bid shall not be less than: \$ 11.00	2,520.00	EACH	(1	00	27,720	00	
138	7.88 AD WATERBUG BAIT APPLICATIONS Unit price bid shall not be less than: \$75.00	2,265.00	BLOCK	75	00	\69,875	00	
139	70.11TT TIMBER PILES (TREATED) Unit price bid shall not be less than: \$ 15.00	4,770.00	V.F.	15	00	71,550	00	
140	70.21DK DECKING	2,380.00	S.Y.	١	00	ව _ා 38 ₀	00	
141	70.31FN FENCING Unit price bid shall not be less than: \$ 2.50	68,500.00	L.F.	۵	50	171,250	00	
142	70.51EO EXCAVATION OF BOULDERS IN OPEN CUT Unit price bid shall not be less than: \$86.50	150.00	C.Y.	86	50	12,975	00	

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

PROJECT ID: SE803

CONTRACT PIN: 8502016SE0020C

COL. 1	COL 2	COL:3 ENGINEER'S ESTIMATE	COL.4	COL. 5 UNIT PRICE (IN FIGURES)		COL: 6 EXTENDED AMOUN (IN FIGURES)	L
SEQ. NO	ITEM NUMBER and DESCRIPTION	OF QUANTITIY	UNIT	DOLLARS	CTS	7 (0.14)	стѕ
143	70.61RE ROCK EXCAVATION	150.00	C.Y.	l	00	150	00
144	70.71SB STONE BALLAST Unit price bid shall not be less than: \$ 17.50	1,015.00	C.Y.	17	50	17,762	50
145	70.81CB CLEAN BACKFILL Unit price bid shall not be less than: \$ 17.50	29,030.00	C.Y.	17	50	508,025	00
146	70.91SW12 FURNISHING AND PLACING SHEETING AND BRACING IN TRENCH FOR WATER MAIN PIPE 12-INCH IN DIAMETER AND LESS	11,650.00	S.F.	0	10	1,165	00
147	70.91SW20 FURNISHING AND PLACING SHEETING AND BRACING IN TRENCH FOR WATER MAIN PIPE 20-INCH IN DIAMETER	14,350.00	S.F.	0	10	1, 435	00
148	72.11HF HYDRAULIC FILL FOR ABANDONED SEWERS AND WATER MAINS	35.00	C.Y.	225	α	7,875	00



PROJECT ID: SE803

CONTRACT PIN: 8502016SE0020C

COL. 1 SEQ. NO	COL 2 ITEM NUMBER and DESCRIPTION	COL.3 ENGINEER'S ESTIMATE	COL-4	COL: 5 UNIT PRICE (IN FIGURES DOLLARS)): -crs	COL: 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS	
149	73.11AB ADDITIONAL BRICK MASONRY Unit price bid shall not be less than: \$ 72.00	60.00	C.Y.	72	00	4,320	OO
150	73.21AC ADDITIONAL CONCRETE Unit price bid shall not be less than: \$72.50	180.00	C.Y.	72	50	13,050	00
151	73.31AE0 ADDITIONAL EARTH EXCAVATION INCLUDING TEST PITS (ALL DEPTHS) Unit price bid shall not be less than: \$ 23.00	1,805.00	C.Y.	23	æ	4-1,515	00
152	73.41AG ADDITIONAL SELECT GRANULAR BACKFILL Unit price bid shall not be less than: \$ 17.50	150.00	C.Y.	17	50	2,625	00
153	73.51AS ADDITIONAL STEEL REINFORCING BARS Unit price bid shall not be less than: \$ 1.00	27,000.00	LBS.	١	00	27, 600	00
154	73.61AT ADDITIONAL STONE BALLAST Unit price bid shall not be less than: \$ 17.50	1,655.00	C.Y.	17	50	28,%2	50

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

PROJECT ID: SE803

CONTRACT PIN: 8502016SE0020C

COL 1	COL. 2	COL; 3 ENGINEER'S ESTIMATE OF QUANTITY	COL,4	COL. 5 UNIT PRICE ((IN FIGURES))		COL. 6 EXTENDED AMOUNT. (IN FIGURES)		
SEQ. NO			UNIT	DOLLARS	CTS	DOLLARS	: CTS	
155	76.11CR CONSTRUCTION REPORT	1.00	L.S.	10,000	00	10,000	00	
156	76.21MR MONITORING AND POST-CONSTRUCTION REPORT	1.00	L.S.	125,000	00	125,000	00	
157	8.01 C1 HANDLING, TRANSPORTING AND DISPOSAL OF NON-HAZARDOUS CONTAMINATED SOIL	3,000.00	TONS	66	00	198,000	00	
158	8.01 C2 SAMPLING AND TESTING OF CONTAMINATED/POTENTIALLY HAZARDOUS SOIL FOR DISPOSAL PURPOSES	7.00	SETS	3,750	00	26,250	00	
159	8.01 H HANDLING, TRANSPORTING AND DISPOSAL OF HAZARDOUS SOIL	115.00	TONS	\85	oo .	21,275	00	
160	8.01 S HEALTH AND SAFETY	1.00	L.S.	25,000	00	25,000	00	



PROJECT ID: SE803

CONTRACT PIN: 8502016SE0020C

COL 1	COL. 2	COL:3 ENGINEER'S ESTIMATE	COL 4	COL. 5 UNIT PRICE (IN FIGURES	Maria Caracteria	COL 6 EXTENDED AMOUNT (IN FIGURES)	
: SEQ. NO 161	8.01 W1 REMOVAL, TREATMENT, AND DISCHARGE/DISPOSAL OF CONTAMINATED WATER	OF QUANTITY 14.00	DAY	A STATE OF THE PARTY OF THE PAR	CTS OO		00
162	8.01 W2 SAMPLING AND TESTING OF CONTAMINATED WATER	2.00	SETS	2,000	æ	4,000	00
163	8.08 VARIABLE MESSAGE BOARD	3.00	EACH	3, 500	00	10,500	00
164	9.04 HW ALLOWANCE FOR ANTI-FREEZE ADDITIVE IN CONCRETE PRICE BID SHALL BE FOR THE FIXED SUM OF \$ 50,000.00	1.00	F.S.	50,000	00	50,000	00
165	9.30 STORM WATER POLLUTION PREVENTION	1.00	L.S.	235,000	00	235,000	00

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

PROJECT ID: SE803

CONTRACT PIN: 8502016SE0020C

COL. 1	COL: 2	COL-3 ENGINEER'S ESTIMATE	COL::4	COL 5 UNIT PRICE (IN FIGURES)		COL. 6 EXTENDED AMOUNT (IN FIGURES)		
SEQ. NO		OF QUANTITIY	/ UNIT	DOLLARS	CTS:	DOLLARS	CTS	
166	9.99 FLASHING ARROW BOARD	6.00	EACH	2,200	00	13,200	06	
167	BMP-7.09 LICENSED SURVEYOR	65.00	DAY	500	00	32,500	00	
168	BMP-7.103 CONCRETE	4.00	C.Y.	1,100	00	4,400	00	
169	BMP-7.103-A CONCRETE (NONSTRUCTURAL)	18.00	C.Y.	300	00	5,400	00	
170	BMP-7.107-B RIP-RAP AND ANGULAR NATURAL FIELD STONE	34.00	C.Y.	225	00	7,650	00	
171	BMP-7.112 STONE PIERS PEDESTRIAN/VEHICLE ENTRANCE	144.00	C.F.	100	œ	14,400	00	



PROJECT ID: SE803

CONTRACT PIN: 8502016SE0020C

COL 1	COL. 2 ITEM: NUMBER and DESCRIPTION	COL.3 ENGINEER'S ESTIMATE	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES)"		COL: 6 EXTENDED AMOUNT (IN FIGURES)	
SEQ. NO		OF QUANTITIY		DOLLARS	CTS	DOLLARS	ंटाङ
172	BMP-7.117 GRAFFITI RESISTANT COATING	1,890.00	S.F.	6	00	11,340	00
173	BMP-7.129-1 STRUCTURE NO. 1	1.00	EACH	4-25,000	00	425,000	00
174	BMP-7.129-2 STRUCTURE NO. 2	1.00	EACH	400,000	00	400,000	00
175	BMP-7.129-3 STRUCTURE NO. 3	1.00	EACH	225,000	00	225,000	00
176	BMP-7.129-4 STRUCTURE NO. 4	1.00	EACH	350,000	00	350,000	00
177	BMP-7.129-5 STRUCTURE NO. 5	1.00	EACH	275,000	00	275,000	00

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

PROJECT ID: SE803

CONTRACT PIN: 8502016SE0020C

COL:1	COL. 2 ITEM NUMBER and DESCRIPTION	COL:3 ENGINEER'S ESTIMATE	COL: 4	COL-5 UNIT PRICE (IN FIGURES)		COL.6 EXTENDED AMOUNT (IN FIGURES)	
SEQ. NO		OF QUANTITIY		DOLLARS	CTS		CTS
178	BMP-7.129-6 STRUCTURE NO. 6	1.00	EACH	500,000	00	500,000	00
179	BMP-7.129-7 STRUCTURE NO. 7	1.00	EACH	1,000,000	00	1,000,000	00
180	BMP-7.129-8 STRUCTURE NO. 8	1.00	EACH	500,000	00	500,000	00
181	BMP-7.301 DEBRIS REMOVAL AND DISPOSAL	34.00	C.Y.	200	00	6,800	00
182	BMP-7.302 CLEARING, GRUBBING AND REMOVALS	48,635.00	S.F.	١	00	48,635	00
183	BMP-7.304-A EXCAVATION	8,765.00	C.Y.	55	00	482,075	æ



PROJECT ID: SE803

CONTRACT PIN: 8502016SE0020C

COL 1	COL 2 ITEM: NUMBER and DESCRIPTION	COL.3 ENGINEER'S ESTIMATE OF QUANTITY	COL_4	COL 5 UNIT PRIC (IN FIGURE DOLLARS	Έ,	COL, 6 EXTENDED AMOUN (IN FIGURES)	a de la companya de La companya de la co
184	BMP-7.306-A TREE REMOVAL 6" TO 12" CALIPER	20.00	EACH	400	00	8,000	© CIS
185	BMP-7.306-B TREE REMOVAL ABOVE 12" TO 18" CALIPER	15.00	EACH	650	00	9,750	00
186	BMP-7.306-C TREE REMOVAL ABOVE 18" TO 24" CALIPER	5.00	EACH	1,000	00	5,000	00
187	BMP-7.306-D TREE REMOVAL ABOVE 24" CALIPER	3.00	EACH	2,000	æ	6,000	00
188	BMP-7.307-A GRADING	104,745.00	S.F.	l	25	130,931	25
189	BMP-7.308 FILL	340.00	C.Y.	45	ao	15,300	00

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

PROJECT ID: SE803

CONTRACT PIN: 8502016SE0020C

COL.1	COL 2	COL:3 ENGINEER'S ESTIMATE OF QUANTITIY	COL 4 UNIT	COL. 5 UNIT PRICE (IN FIGURES)		COL: 6 EXTENDED AMOUNT. (IN FIGURES)		
SEQ. NO				DOLLARS	CTS	DOLLARS	CTS	
190	BMP-7.310-A4 PLANT SALVAGE	9.00	HRS	360	00	3,240	00	
191	BMP-7.313 REMOVAL OF POND SEDIMENTS PRICE BID SHALL BE FOR THE FIXED SUM OF \$ 200,000.00	1.00	F.S.	200,000	00	200,000	00	
192	BMP-7.401-A2 CANOPY TREES (1" CALIPER)	126.00	EACH	350	00	44,100	00	
193	BMP-7.401-H SHRUBS	181.00	EACH	105	00	19,005	00	
194	BMP-7.401-I SEEDING	46,000.00	S.F.	O	75	34,500	00	



PROJECT ID: SE803

CONTRACT PIN: 8502016SE0020C

COL.1	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL.4	COL. 5 UNIT PRICE (IN FIGURES DOLLARS		COL: 6 EXTENDED AMOUN (IN FIGURES!) DOLLARS	Aregory wa
195	BMP-7.401-J HERBACEOUS PLANTS (PLUGS)	7,070.00		10	00	70,700	CTS OO
196	BMP-7.403 TOPSOIL	325.00	C.Y.	65	00	21,125	00
197	BMP-7.405-A VECTOR AND PEST CONTROL	160.00	HRS	400	00	64,000	00
198	BMP-7.406 WOOD CHIPS	18.00	C.Y.	100	00	1,800	00
199	BMP-7.407 JUTE MESH	54,993.00	S.F.	0	75	41,244	75
200	BMP-7.408-B HERBICIDE APPLICATION	25.00	CREW DAY	1,800	00	45,000	00

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

PROJECT ID: SE803

CONTRACT PIN: 8502016SE0020C

COL. 1	COL.2	COL.3 ENGINEER'S ESTIMATE	COL4	COL. 5 UNIT PRICE (IN FIGURES	10 A 10	COL. 6 EXTENDED AMOUNT ('IN FIGURES')	es flores a reservi-
SEQ. NO	ITEM NUMBER and DESCRIPTION	OF QUANTITIY \	UNIT	DOLLARS	CTS	DOLLARS	стѕ
201	BMP-7.413 TEMPORARY GOOSE EXCLUSION FENCE	3,880.00	L.F.	25	00	97,000	00
202	BMP-7.415 INVASIVE VINE AND PLANT REMOVAL	10.00	CREW DAY	4,000	00	40,000	00
203	BMP-7.419 TREE AND ROOT PRUNING	5.00	CREW DAY	4,500	ao	22,500	00
204	BMP-7.502 CONSTRUCTION LIMIT FENCE	1,355.00	L.F.	10	00	13,550	00
205	BMP-7.504 REINFORCED SILT FENCE	910.00	L.F.	28	æ	25,480	00
206	BMP-7.505 SAND BAG	315.00	EACH	10	00	3, 150	00



PROJECT ID: SE803

CONTRACT PIN: 8502016SE0020C

COL.1	COL. 2	COL.13 ENGINEER'S ESTIMATE	COL 4	COL: 5 UNIT PRICE (IN FIGURES		COL.6 EXTENDED AMOUNT (IN FIGURES)	
207	ITEM NUMBER and DESCRIPTION BMP-7.506-A SEDIMENT TRAP WITH FILTER	©OF QUANTITIY	EACH	5,000	©18 00	10,000	оо ОО
208	BMP-7.510 PORTABLE SEDIMENT TANK	2.00	EACH	1,100 HNS	00	2,200	00
209	BMP-7.512 DIRTBAG	10.00	EACH	'525	60	5,250	00
210	BMP-7.601-B GALVANIZED STEEL "W" BEAM GUIDE RAIL AND GUIDE RAIL GATE	145.00	L.F.	75	00	101875	00
211	BMP-7.602 BOULDERS	42.00	EACH	300	0 0	12,600	00
212	BMP-7.603-A STEEL PIPE BOLLARD - FIXED	2.00	EACH	1200	00	2,400	40

4/14/2016 12:00 AM

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

PROJECT ID: SE803

CONTRACT PIN: 8502016SE0020C

BID SCHEDULE FORM

COL. 1	COL. 2	COL 3 ENGINEER'S ESTIMATE	COL 4	COL-5 UNIT PRICE ('IN FIGURES')		COL: 6 1 EXTENDED AMOUNT (IN FIGURES)	
SEQ. NO	ITEM NUMBER and DESCRIPTION	OF QUANTITIY	UNIT	DOLLARS	CTS	DOLLARS	CTS
213	BMP-7.603-B STEEL PIPE BOLLARD - REMOVABLE	8.00	EACH	2,160	o c	17,280	69
214	BMP-7.604-4 4-FOOT BLACK CHAIN LINK FENCE	1,280.00	L.F.	61 0	§∂ි	78,080	<i>0</i> 0
215	BMP-7.604-6 6-FOOT BLACK CHAIN LINK FENCE	765.00	L.F.	72	9 O	55/680	00
216	BMP-7.605-A PERMANENT SIGNS ON STEEL RAIL POSTS	16.00	EACH	125	O	2,000	00
217	BMP-7.606-B PERMANENT MAINTENANCE ACCESSWAY (PAVERS)	3,485.00	S.F.	15	00	527275	60
218	BMP-7.607 TEMPORARY HERBIVORE EXCLUSION FENCE	315.00	L.F.	22	o0	6,930	00

B - 40 [REVISION # 2]



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

PROJECT ID: SE803

CONTRACT PIN: 8502016SE0020C

BID SCHEDULE FORM

COL 1	COL.2 TEM NUMBER: and DESCRIPTION	COL-3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4	COL:5. UNIT/PRICE (IN FIGURES) DOLLARS	CIS	COL: 6 EXTENDED AMOUNT (IN FIGURES)
219	BMP-7.613 SPLIT RAIL FENCE	185.00	L.F.	2000	00	91250 0
220	BMP-7.622 FOREBAY MICROPOOL SEDIMENT CLEAN-OUT INDICATOR	6.00	EACH	120	00	720 00
221	BMP-7.624 SWING GATE	1.00	EACH	1,900.	00	190000
222	BMP-7.701A LIVE STAKES	80.00	EACH	15	00	1200 00
223	BMP-7.705 EROSION CONTROL MAT	975.00	S.F.	4	ို့ဝ	3,90000
224	BMP-7.707 COCONUT ROLL (BIOLOG)	140.00	L.F.	31	00	5,180 00

4/14/2016 12:00 AM

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

PROJECT ID: SE803

CONTRACT PIN: 8502016SE0020C

BID SCHEDULE FORM

COL 1	COL. 2	COL: 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4	COL. 5 UNIT PRICE: (IN FIGURES) DOLLARS	CTS	COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS	: CTS
225	BMP-7.710 RENO MATTRESS	25.00	S.Y.		o ပ	8,750	00
226	UTL-6.01.1 GAS MAIN CROSSING SEWER UP TO 24" IN DIAMETER (\$6.01) Unit price bid shall not be less than: \$ 1,040.00	37.00	EACH	7040	00	38,480	00
227	UTL-6.01.2 GAS MAIN CROSSING SEWER 30" IN DIAMETER (S6.01) Unit price bid shall not be less than: \$ 1,770.00	3.00	EACH	\1770	0 0	5,310	୦
228	UTL-6.01.4C GAS MAIN CROSSING 45"W X 29"H HORIZONTAL ELLIPTICAL REINFORCED CONCRETE STORM SEWER (\$6.01) Unit price bid shall not be less than: \$1,960.00	3.00	EACH	1,960	0	5,880	DD
229	UTL-6.01.8 GAS SERVICES CROSSING TRENCHES AND/OR EXCAVATIONS (S6.01) Unit price bid shall not be less than: \$465.00	65.00	EACH	465	60	301.225	00
230	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	30.00	EACH	485	00	14,50	80



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

PROJECT ID: SE803

CONTRACT PIN: 8502016SE0020C

BID SCHEDULE FORM

COL. 1 SEQ. NO	COL 2 TEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL:4	COL. 5 UNIT PRICE (IN FIGURES) DOLLARS	CTS	COL: 6 EXTENDED AMOUNT, (IN FIGURES) DOLLARS	стѕ
237	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	00		00
238	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: \$33,935,769.44

239	6.39 A	1.00	L.S.	11357068:36	1,357,068 36
	MOBILIZATION			, , , ,	
	BID PRICE OF MOBILIZATION SHALL NOT EXCEED 4% OF THE ABOVE SUB-TOTAL PRICE.				

TOTAL BID PRICE: \$ 35, 29277777

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.

B - 44 [REVISION # 2] 4/14/2016 12:00 AM

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

PROJECT ID: SE803

CONTRACT PIN: 8502016SE0020C

BID SCHEDULE FORM

COL. 1 SEQ. NO	COL. 2	JCOU 3 ENGINEERS ESTIMATE OF QUANTITY	COLA T	COL, 5 UNIT PRICE (INIFIGURES) DOLLARS	. ers	COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS : CTS
231	UTL-6.02 EXTRA EXCAVATION FOR THE INSTALLATION OF CATCH BASIN SEWER DRAIN PIPES WITH GAS INTERFERENCES (S6.02) Unit price bid shall not be less than: \$ 715.00	6.00	EACH	715		4,290 00
232	UTL-6.03 REMOVAL OF ABANDONED GAS FACILITIES. ALL SIZES. (S6.03) Unit price bid shall not be less than: \$ 15.00	6,000.00	L.F.	15	00	90,000 00
233	UTL-6.03.1 REMOVAL OF ABANDONED GAS FACILITIES WITH POSSIBLE COAL TAR WRAP. ALL SIZES. (FOR NATIONAL GRID WORK ONLY) (S6.03) Unit price bid shall not be less than: \$ 25.00	1,000.00	L.F.	25	00	25,60000
234	UTL-6.04 ADJUST HARDWARE TO GRADE USING SPACER RINGS/ADAPTORS. (STREET REPAVING.) (S6.04) Unit price bid shall not be less than: \$ 35.00	25.00	EACH	35	σO	875 00
235	UTL-6.05 ADJUST HARDWARE TO GRADE BY RESETTING. (ROAD RECONSTRUCTION.) (S6.05) Unit price bid shall not be less than: \$65.00	20.00	EACH	65	80	1300 00
236	UTL-6.06 SPECIAL CARE EXCAVATION AND BACKFILLING (S6.06) Unit price bid shall not be less than: \$ 180.00	1,600.00	C.Y.	180	60	288,000,00

BID FORM

PROJECT ID: SE803

<u>TOTAL BID PRICE</u>: 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)

35,292,777.77 \$34,567,891.77 \$B 4/19/16

BIDDER'S SIGNATURE AND AFFIDAVIT

Bidder: Ji Fazis Ind. LLC Jba Ji Fazis Industries

By: (Signature of Partner or corporate officer)

Attest: (Corporate Seal)

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

BID FORM (TO BE NOTARIZED)

AFFIDAVIT WHERE	EBIDDER IS AN INDIVIDUAL	
STATE OF NEW YORK, COUNTY OF	ss:	
		eing duly sworn says:
I am the person described in and who executed the forespects true.	regoing bid, and the several matters the	herein stated are in all
	(0)	
Subscribed and sworn to before me this	(Signature of the person who	signed the Bid)
day of,		
day or,		
Notary Public		
, , , , , , , , , , , , , , , , , , ,		
AFFIDAVIT WHERE	BIDDER IS A PARTNERSHIP	
STATE OF NEW YORK, COUNTY OF	ss:	
	be	ing duly sworn says:
I am a member of bid. I subscribed the name of the firm thereto on behavior.	the firm described in and whi	ch executed the foregoing
	alf of the firm, and the several matters	therein stated are in all
respects true.		•
	(G:	1.4 35.4
Subscribed and sworn to before me this	(Signature of Partner who signature	gned the Bid)
day of,		
day or		
Notary Public		
,		
AFFIDAVIT WHERE	BIDDER IS A CORPORATION	
STATE OF NEW YORK, COUNTY OF Rich	nond ss:	
John Difazio	be	ing duly sworn says:
I am the of the abo	ove named corporation whose name is	subscribed to and which
executed the foregoing bid. I reside at Colts N		
I have knowledge of the several matters therein stated	, and they are in all respects true.	
	6: 1	1.1 57.1
Subscribed and sworn to before me this	(Signature of Carrier who sig	med the Bid)
	\\'	
144h day of April ,2016	SOFIA PAVIDIS	,
Jalia Paulilia	Notary Public, State of New York	
Notary Public	190. 43-4031677	
Troung Lubilo	Qualified in Richmond Court	
•	Commission Expires July 18, 20 18	•
		-
CITY OF NEW YORK	C-5	BID BOOKLET

DECEMBER 2013

DEPARTMENT OF DESIGN AND CONSTRUCTION

BID BOND 1 FORM OF BID BOND

CITY OF NEW YORK DEPARTMENT OF DESIGN AND CONSTRUCTION	C-7	BID BOOKLET SEPTEMBER 2008
(c) In all respects perform the a provided in the Information for Bidders, but the aforesaid Proposal, then this obligation effect.	und herewith and made a pa	ceptance of said Proposal as rt hereof, or if the City shall reject wise to remain in full force and
all respects to the City and shall be executed	• •	
for the faithful performance and proper fulf	illment of such Contract, wh	
in accordance with the proposal as accepted	i, and	
(a) Within ten (10) days after not the City all the executed counterparts of	notification by the City, executhe Contract in the form set	cute in quadruplicate and deliver forth in the Contract Documents,
opening of bids and in the event of acceptar shall:	ice of the Principal's Propos	al by the City, if the Principal
NOW, THEREFORE, the condition withdraw said Proposal without the consent	of the City for a period of f	forty-five (45) days after the
PROJECT ID: SE803 PIN: 8502016SE00 appurtenances in Ramble Road, etc. incluthereto, Borough of Staten Island.	ding water main work, toge	ther with all work incidental
-	_	
Whereas, the Principal is about to s proposal, hereby made a part hereof, to enter		
money well and truly to be made, we, and e successors and assigns, jointly and severally		ir nens, executors, administrators,
		payment of which said sum of
		Ten percent of amount bid.
hereinafter referred to as the "Surety" are he hereinafter referred to as the "CITY", or to	its successors and assigns in	the penal sum of
havin A. 15 14 185 1. 1.	.13 J C	COTTY OF NEW YORK
1400 American Lane. Tower I. 18th Floor. Schaumbu	ıra. IL 60196-1056	
hereinafter referred to as the "Principal", an FIDELITY AND DEPOSIT COMPANY OF MAF		
38 Kinsev Place, Staten Island, NY, 10303		
DIFAZIO IND., LLC DBA DIFAZIO INDUSTRIE		
KNOW ALL MEN BY THESE PRESENTS	S. That we,	

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 the 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 _____21st _____day of _____March______, 2016_____.

(Seal)

DIFAZIO IND., LLC DBA DIFAZIO
(INDUSTRIES (L.S.)

Principal

By:

FIDELITY AND DEPOSIT COMPANY OF MARYLAND

Surety

By:

Cyrthia Farrell, Attorney In Fact

BID BOND 3

ACKNOWLEDGMENT OF PRINCIPAL, IF A CORPORATION

State of	County of	ss:
On this	day of	ss:
		to me known, who, being by me duly sworn, did depose and say
that he resides at		•
that he is the		of
corporation; that	one of the seals affixed	xecuted the foregoing instrument; that he knows the seal of said to said instrument is such seal; that it was so affixed by order of the signed his name thereto by like order.
•		Notary Public
	ACKNOWLEDGM	ENT OF PRINCIPAL, IF A PARTNERSHIP
State of	County of	ss:
On this	day of	ss: 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
firm.	e actiowing of to file	that he executed the same as and for the act and deed of said
		Notary Public
	ACKNOWLEDGM	ENT OF PRINCIPAL, IF AN INDIVIDUAL
State of	County of	cc.
On this	day of	ss: , before me personally appeared
		to me known and known to me to be the person described in
and who executed		ent and acknowledged that he executed the same.
		Notary Public
	APPEN APPAINITED	
	AFFIX ACKNOWLED	GMENTS AND JUSTIFICATION OF SURETIES
CITY OF NEW YORK		C-9 BID BOOKLET

SEPTEMBER 2008

DEPARTMENT OF DESIGN AND CONSTRUCTION

ACKNOWLEDGEMENT FOR CONTRACTOR

ACKNOWLEDGEMENT FOR CONTRACTOR, IF A LIMITED LIABILITY COMPANY

STATE OF New York,)
COUNTY OF Richmond,

ON THE 14th DAY OF April , 2016, BEFORE ME PERSONALLY APPEARED John DiFazio TO ME KNOWN AND KNOWN TO ME TO BE THE principal OF DiFazio Findustries , A LIMITED LIABILITY COMPANY, DESCRIBED IN AND WHO EXECUTED THE FOREGOING INSTRUMENT AND ACKNOWLEDGED TO ME THAT (S)HE EXECUTED THE SAME AS AND FOR THE ACT AND DEED OF SAID LIMITED LIABILITY COMPANY.

Notar**∜** Public

SOFIA PAVLIDIS
Notary Public, State of New York
No. 43-4931677
Qualified in Richmond County
Commission Expires July 18, 20

ACKNOWLEDGEMENT OF SURETY

State of New York

County of New York

On this 21st day of March in the year 2016 before me personally came to me known, who, being by me duly sworn, did depose and Cynthia Farrell he/she resides in New York, NY that he/she is the Attorney-In-Fact for

Fidelity and Deposit Company of Maryland

the corporation described in and which executed the attached instrument; and that he/she signed his/her name thereto by Order of the Board of Directors of the said Corporation.

Notary Public

AKLIMA B NOORHASSAN
Notary Public - State of New York
NO. 01N06284493
Qualified in Queens County
My Commission Expires Jun 17, 2017

ZURICH AMERICAN INSURANCE COMPANY COLONIAL AMERICAN CASUALTY AND SURETY COMPANY FIDELITY AND DEPOSIT COMPANY OF MARYLAND POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That the ZURICH AMERICAN INSURANCE COMPANY, a corporation of the State of New York, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, a corporation of the State of Maryland, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND a corporation of the State of Maryland (herein collectively called the "Companies"), by MICHAEL BOND, Vice President, in pursuance of authority granted by Article V, Section 8, of the By-Laws of said Companies, which are set forth on the reverse side hereof and are hereby certified to be in full force and effect on the date hereof, do hereby nominate, constitute, and appoint Vivian CARTI, Debra A. DEMING, Cynthia FARRELL, Sandra DIAZ, Jessica IANNOTTA, Annette LEUSCHNER, Edward REILLY, Kelly O'MALLEY and Evangelina L. DOMINICK, all of New York, New York, EACH its true and lawful agent and Attorney-in-Fact, to make, execute, seal and deliver, for, and on its behalf as surety, and as its act and deed: any and all bonds and undertakings, and the execution of such bonds or undertakings in pursuance of these presents, shall be as binding upon said Companies, as fully and amply, to all intents and purposes, as if they had been duly executed and acknowledged by the regularly elected officers of the ZURICH AMERICAN INSURANCE COMPANY at its office in New York, New York., the regularly elected officers of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at its office in Owings Mills, Maryland., in their own proper persons.

The said Vice President does hereby certify that the extract set forth on the reverse side hereof is a true copy of Article V, Section 8, of the By-Laws of said Companies, and is now in force.

IN WITNESS WHEREOF, the said Vice-President has hereunto subscribed his/her names and affixed the Corporate Seals of the said ZURICH AMERICAN INSURANCE COMPANY, COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and FIDELITY AND DEPOSIT COMPANY OF MARYLAND, this 15th day of February, A.D. 2016.

ATTEST:

ZURICH AMERICAN INSURANCE COMPANY COLONIAL AMERICAN CASUALTY AND SURETY COMPANY FIDELITY AND DEPOSIT COMPANY OF MARYLAND

SEAL)

1908 1908

Vice President Michael Bond

By ____

Secretary Eric D. Barnes

State of Maryland

County of Baltimore

On this 15th day of February, A.D. 2016, before the subscriber, a Notary Public of the State of Maryland, duly commissioned and qualified, MICHAEL BOND, Vice President, and ERIC D. BARNES, Secretary, of the Companies, to me personally known to be the individuals and officers described in and who executed the preceding instrument, and acknowledged the execution of same, and being by me duly sworn, deposeth and saith, that he/she is the said officer of the Company aforesaid, and that the seals affixed to the preceding instrument are the Corporate Seals of said Companies, and that the said Corporate Seals and the signature as such officer were duly affixed and subscribed to the said instrument by the authority and direction of the said Corporations.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my Official Seal the day and year first above written.

Maria D. Adamski, Notary Public My Commission Expires: July 8, 2019

EXTRACT FROM BY-LAWS OF THE COMPANIES

"Article V, Section 8, <u>Attorneys-in-Fact</u>. The Chief Executive Officer, the President, or any Executive Vice President or Vice President may, by written instrument under the attested corporate seal, appoint attorneys-in-fact with authority to execute bonds, policies, recognizances, stipulations, undertakings, or other like instruments on behalf of the Company, and may authorize any officer or any such attorney-in-fact to affix the corporate seal thereto; and may with or without cause modify of revoke any such appointment or authority at any time."

CERTIFICATE

I, the undersigned, Vice President of the ZURICH AMERICAN INSURANCE COMPANY, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, do hereby certify that the foregoing Power of Attorney is still in full force and effect on the date of this certificate; and I do further certify that Article V, Section 8, of the By-Laws of the Companies is still in force.

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the ZURICH AMERICAN INSURANCE COMPANY at a meeting duly called and held on the 15th day of December 1998.

RESOLVED: "That the signature of the President or a Vice President and the attesting signature of a Secretary or an Assistant Secretary and the Seal of the Company may be affixed by facsimile on any Power of Attorney...Any such Power or any certificate thereof bearing such facsimile signature and seal shall be valid and binding on the Company."

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at a meeting duly called and held on the 5th day of May, 1994, and the following resolution of the Board of Directors of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at a meeting duly called and held on the 10th day of May, 1990.

RESOLVED: "That the facsimile or mechanically reproduced seal of the company and facsimile or mechanically reproduced signature of any Vice-President, Secretary, or Assistant Secretary of the Company, whether made heretofore or hereafter, wherever appearing upon a certified copy of any power of attorney issued by the Company, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the corporate seals of the said Companies, this _____ day of ______. 20____.







Thomas O. McClellan, Vice President

The o. melill

FIDELITY AND DEPOSIT COMPANY

OF MARYLAND 600 Red Brook Blvd., Suite 600, Owings Mills, MD 21117

Statement of Financial Condition As Of December 31, 2015

ASSETS

Bonds	\$	142,878,497
Stocks		22,315,096
Cash and Short Term Investments		337,835
Reinsurance Recoverable		24,731,651
Other Accounts Receivable	•••••	19,935,844
TOTAL ADMITTED ASSETS	\$	210,198,923
LIABILITIES, SURPLUS AND OTHER FUNDS		
Reserve for Taxes and Expenses	\$	46,436
Ceded Reinsurance Premiums Payable		40,456,309
Securities Lending Collateral Liability		0
TOTAL LIABILITIES	\$	40,502,745
Capital Stock, Paid Up \$ 5,000		
Surplus	178	
Surplus as regards Policyholders.		169,696,178
Total	\$	
TOTAL MANAGEMENT AND ADDRESS OF THE PROPERTY O	ι Ψ	210,170,743

Securities carried at \$57,996,983 in the above statement are deposited with various states as required by law.

Securities carried on the basis prescribed by the National Association of Insurance Commissioners. On the basis of market quotations for all bonds and stocks owned, the Company's total admitted assets at December 31, 2015 would be \$212,137,795 and surplus as regards policyholders \$171,635,049.

I, DENNIS F. KERRIGAN, Corporate Secretary of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, do hereby certify that the foregoing statement is a correct exhibit of the assets and liabilities of the said Company on the 31st day of December, 2015.

Corporate Secretary

State of Illinois City of Schaumburg

SS:

Subscribed and sworn to, before me, a Notary Public of the State of Illinois, in the City of Schaumburg, this 15th day of March, 2016.

DARRYL JOINER
OFFICIAL SEAL
Notary Public - State of Illinois
My Commission Expires
February 24, 2018

Dasoy Join Notary Public

STATE OF NEW YORK DEPARTMENT OF FINANCIAL SERVICES

CERTIFICATE OF SOLVENCY UNDER SECTION 1111 OF THE NEW YORK INSURANCE LAW

It is hereby certified that

Fidelity and Deposit Company of Maryland of Owings Mills, Maryland

a corporation organized under the laws of the State of Maryland and duly authorized to transact the business of insurance in this State, is qualified to become surety or guarantor on all bonds, undertakings, recognizances, guaranties and other obligations required or permitted by law; and that the said corporation is possessed of a capital and surplus including gross paid-in and contributed surplus and unassigned funds (surplus) aggregating the sum of \$168,472,716.(Capital \$5,000,000.) as is shown by its sworn financial statement for the quarter ended December 31, 2014, on file in this Department, prior to audit.

The said corporation cannot lawfully expose itself to loss on any one risk or hazard to an amount exceeding 10% of its surplus to policyholders, unless it shall be protected in excess of that amount in the manner provided in Section 4118 of the Insurance Law of this State.



In Witness Whereof, I have hereunto set my hand and affixed the official seal of this Department at the City of Albany, this 25th day of March, 2015.

Benjamin M. Lawsky Superintendent

Ву

Jacqueline Catalfamo Special Deputy Superintendent

queline Catalfamo

M/WBE PROGRAM

M/WBE UTILIZATION PLAN

<u>M/WBE Program Requirements</u>: 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.

<u>Impact on LBE Requirements</u>: 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

<u>PARTICIPATION GOALS FOR CONSTRUCTION, STANDARD</u> 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

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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.

- 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, 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 #:_	73	170	6369	

APT E-	
PIN #:	85016B0108

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 #	85016B0108	FMS Pr	oject ID#:	SE-803
Project Title/ Agency PIN #	CONSTRUCTION OF SANITAR 8502016SE0020C	RY AND STO	RM SEWERS	AND APPURTENANCES /
Bid/Proposal Response Date	March 29, 2016			
Contracting Agency	Department of Design and Co	nstruction		
Agency Address	30-30 Thomson Avenue City	Long Island	City State	NY Zip Code 11101
Contact Person	Lea Case	Title	MWBE Liaise	on & Compliance Analyst
Telephone #	(718) 391-1003	Email	casele@ddc.	nyc.gov
Project Description (att	ach additional pages if necessary)			

PROJECT ID: SE803

FOR THE CONSTRUCTION OF SANITARY AND STORM SEWERS AND APPURTENANCES IN RAMBLE ROAD, ETC

INCLUDING WATER MAIN WORK

Together With All Work Incidental Thereto BOROUGH OF STATEN ISLAND 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 Contra	ct Industry: Construction	
	Group	Percentage
Nillan	<u>Unspecified</u> *	(16%)
****	or	
belakan	Black American	UNSPECIFIED*
•	Hispanic American	UNSPECIFIED*
****	Asian American	UNSPECIFIED*
	Women	UNSPECHTIED*

Total Participation Goals 16% 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.

Tay ID #	73	170	6365
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APT E-	
PIN#:	85016B0108

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	mation				
Tax ID# 73 170 63	269		FMS Vendor ID #	200	2543527.
				<u> </u>	/ >c =:
Business Name Difazo 1	J. UC da Hazio I Contact Person Toe L			- 2149	
Address 38 Kinsey	11 State		plend My	10	2 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
Telephone # 78-720-6960	Email _		we pelo	917	reziondinet.
		F. 35		778	
Section II: M/WBE Utilization Goal Calcul	ation: Check the appl	ical	ble box and complete su	bsec	tion.
PRIME CONTRACTOR ADOPTING AG	ENCY M/WBE PAR	ΓIC	IPATION GOALS		
For Prime Contractors (including Qualified Joint Ventures and M/WBE firms) adopting Agency M/WBE	Total Bid/Proposal Value		Agency Total Participation Goals (Line 1, Page 13)	·	Calculated M/WBE Participation Amount
Participation Goals.					
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.	\$	X			\$ Line 2
PRIME CONTRACTOR OBTAINED PARTICIPATION GOALS	RTIAL WAIVER APP	RC	OVAL: ADOPTING MO	DIFIE	ED M/WBE
For Prime Contractors (including Qualified Joint Ventures and M/WBE firms) adopting Modified M/WBE	Total Bid/Proposal Value		Adjusted Participation Goal (From Partial Waiver)		Calculated M/WBE Participation Amount
Participation Goals.			,		
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.	\$34,5C1,891	X	, 12	=	\$ 4,148,147 Line 3

Tax ID#: 73 (70 6)	364 APT E- PIN #:8501	6B0108
review the Notice to Prospective	lan: How Proposer/Bidder Will Fulfill M/WBE Participation (e Contractors for more information on how to obtain credit box. The Proposer or Bidder will fulfill the M/WBE Partici	for M/WBE
contract the value of which is at le	ctor that will self-perform and/or subcontract to other M/WBE fir east the amount located on Lines 2 or 3 above, as applicable. T E firms will not be credited towards fulfillment of M/WBE Partici me Contractor:	he value of any
As a Qualified Joint Venture vand/or the value of any work subsabove, as applicable. The value fulfillment of M/WBE Participation	with an M/WBE partner, in which the value of the M/WBE partner contracted to other M/WBE firms is at least the amount located of any work subcontracted to non M/WBE firms will not be credit Goals.	on Lines 2 or 3 ted towards
As a non M/WBE Prime Cont least the amount located on Lines	ractor that will enter into subcontracts with M/WBE firms the val	ue of which is at
Section IV: General Contract Info What is the expected percenta services, regardless of M/WBE	ge of the total contract dollar value that you expect to award in subcon	ny services you plan on
✓ Scopes of Subcontract Work	participation by MBEs and/or WBEs and the time frame in which such work is end. Use additional sheets if necessary. 1. Tree Prening of Removals - 57,000 2. Tree Planting - 162,000 MBE 3. Tree Consultant - 300,000 4. TU Imspection of Savers 62,000 5. Pavement Markins 18,000 6. Crossing Gands 230,000 8. Timbar Pilos 163,000 9. SWPPP 75,000 10. Landscaping 445,000 MBE 11. Fences Prails 130,000 12. Hay Met 303,000 MMBE 13. Therking Markins HG3 - 44 MBE 14. Hay Met 303,000 MMBE 15. MBE - 44 MBH HG 16. Total - 5203,449 17. HG 17. HG 18. Solutional Sheets 120,000 17. HG 18. Solutional Sheets 120,000 18. Solutional Sheets 130,000 MBE 19. Solutional Sheets 130	s scheduled to begin and 1-12 months 30-36 months 1-36 months 1-36 months 1-36 months 1-36 months 1-36 months 1-36 months 12-36 months 24-36 months 12-36 months 12-36 months

APT E-	
PIN#:	85016B0108

Section V: 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	In Liga & Liga	Date	
Print Name	Joe Lige	Title P.M.	

718-391-2615/ Cosele@ddc., vyagor. Lea Case

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

en e	The Control of the Co		
Tax ID#	73-170-6369 F	MS Vendor ID #	
Business Name	DiFerent Tod. LC Alla	liszio Indotros	***************************************
Contact Name	Tue Liga. Telephone #		o diffiziona
Type of Procureme			9 2016
APT E-PIN # (for the procurement):		Contracting Agency:	A STATE OF THE STA
M/WBE Particip		documents	
Proposed MAMPE I	 Agency M/WBE Participation Goal Participation Goal as anticipated by vendor se 	attan matura	
T %			
	of the total contract value anticipated in go for services and/or credited to an M/WBE P	od faith by the bidder/proposer to be subco	ntracted
	Selfor a factor of the factor	And the state of t	all see to be
the second secon	The state of the s	The second secon	*(A.7)
☐ Vendor does no	t subcontract services, and has the capacity	and good faith intention to perform all si	uch work
itself with its own e	mployees.		
	racts some of this type of work but at a low	er % than bid/solicitation describes, and i	as the
capacity and good t	aith intention to do so on this contract. (At	tach subcontracting plan outlining servic	es that
the vendor will sen-	perform and subcontract to other vendors of	or consultants.)	
☐ Vendor has other	er legitimate business reasons for proposing	r the MARK Certicipation Carl phone S	uminin.
under separate cov	a regramme publices (edsors for propositi Ar.	y the mittoc manucipation Goal Boove. E	kpiain
	•••		
(4) H (1) (8)		tegelin est in the state of the	A was former a
A College of the Section of the College State of the Section of th	ontracts performed for NYC agencies (if any).		wardad in
performance of suci	contracts. Add more pages if necessary.	The second secon	Na. 000 AT
In Are CONTRACT NO.	SEL 200238 AGENCY	YCARO DATE COMPLETED	715
Total Contract	Total Amount	TCP DATE COMPLETED	417
Amount		919,492(19)	
Itam of Work	Item of Work	item of Work	
Subcontracted and Value of subcontract	Subcentracted and Value of subcontract	Subcontracted and Value of subcontract	
A Side of addressift Ref.	value of subcontract	Value of Subcontract	<u> </u>
A lailed CONTRACT NO.	SEL 200 2181 AGENCY /	VYCPDC DATE COMPLETED	7/14
Total Contract	Total Amount 19	100 - 34	-74
	\$ (0,678,000 Subcontracted 5	627.2%	-
item of Wark	Item of Work	Item of Work	
Subcontracted and	Subcontracted and	Subcontracted and	
Value of subcontract	Value of subcontract	Value of subcontract	and the second s
ade Led contract no.	SELOUZZZ AGENCY	NICEPC DATE COMPLETED	7/12
Total Contract		NECOPC DATE COMPLETED	110
Amount	s (4, (4), 14) Total Amount Subcontracted 5	1,229,2387	
Item of Work	Item of Work	Item of Work	
Subcontracted and	Subcontracted and	Subcontracted and	
Value of subcontract	Value of subcontract	Value of subcontract	
***************************************	****		
CITY OF NEW YORK		17 BI	D BOOKLET

DECEMBER 2013

sy's most recent contracts performed for other entities. Include information for each subcontract awarded in erformance 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 Total Amount** 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 Total Amount** Amount \$ Subcontracted \$ Item of Work Item of Work Subcontracted Item of Work Subcontracted and and Value of Subcontracted and Value of subcontract subcontract Value of subcontract TYPE OF Contract **AGENCY/ENTITY** DATE COMPLETED Manager at entity that hired vendor (Name/Phone No./Email) **Total Contract Total Amount** Amount \$ Subcontracted \$ item of Work Item of Wark Subcontracted item of Work Subcontracted and and Value of Subcontracted and Value of subcontract subcontract Value of subcontract VENDOR CERTIFICATION: / hereby all in Calally inflammation engalication appear of differences request is true and Signature: Date: **Print Name:** Title: Mindus men dialogs in the manhey and mobile on only AGENCY CHIEF CONTRACTING OFFICER APPROVAL Signature: CITY CHIEF PROCUREN ENTIOFFICER APPROVAL Signature: Data:

Waiver Determination

Full Waiver Approved: Waiver Denied: Partial Waiver Approved: Revised Participation Goal: 12%

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

Contract Overview	Committee of the Commit	
Tax ID #	70 6 3 6 5 . FMS Vend	dorID# 000254 3527
Business Name	grio Ird. HC	
Contact Name Joe Li	۲۹۹ Telephone #	770-6966 Email isclosife
Type of Procurement	Competitive Sealed Bids	Bid/Response Due Date 4/19/2016
APT E-PIN # (for this		Contracting Agency:
procurement):		PYCOC.
MMRE Participation Co		
	oals as described in bid/solicitation docume	ents
(<i>6.</i> % Agenc	y M/WBE Participation Goal	
Proposed M/WBE Participation	on Goal as anticipated by vendor seeking w	aiver
% of the to	otal contract value anticipated <u>in good faith</u>	by the bidder/proposer to be subcontracted
Tor serv	ices and/or credited to an M/WBE Prime Co	ntractor or Qualified Joint Venture.
Basis for Waiver Request:	Check appropriate box & explain in detail b	elow (attach additional pages if needed)
☐ Vendor does not subcontritself with its own employees.	ract services, and has the capacity and go	od faith intention to perform all such work
capacity and good faith intent	ion to do so on this contract. (Attach sub	OCOntracting plan outlining services that
the vendor will self-perform a	te of this type of work but at a <i>lower</i> % that tion to do so on this contract. (Attach sub nd subcontract to other vendors or consu te business reasons for proposing the M/	ocontracting plan outlining services that Itants.)
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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	E	ENTITY	DATE COMPLETED
Manager at entit	y that hired vendor (Name/Phone No.	Email)	
Total Contract Amount	Total Amount Subcontracted	\$	
Type of Work Subcontracted	-		
TYPE OF Contract	AGENCY/E	ENTITY	DATE COMPLETED
No./Email)	maty and mod vendor (vendor none		
Total Contract Amount	\$ Total Amount \$ Subcontracted	\$	
Item of Work	Item of Work Subcontracted and Value of		Item of Work Subcontracted and
Subcontracted and Value of subcontract	subcontract		Value of subcontract
TYPE OF Contract	ÁGENCY/E	ENTITY	DATE COMPLETED
Manager at enti	ty 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
VENDOR CERTIFIC	ATION: I hereby affirm that the info	rmation supplied in support o	
	request is made in good rain.		
Print Name:		Title:_	
AGENCY CHIEF C Signature:	s for agency completion only ONTEX (OTING OFFICER APPROV) BUREMENT OFFICER APPROVAL	O. Date:	
Signature:		Date*	
Waiver Determinat	ion "f"	Security Comments	
Full Waiver Approve Waiver Denied: Partial Waiver Appropriate Participation	oved!		
	English Control of the Control of th		

APPRENTICESHIP PROGRAM REQUIREMENTS

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

(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:

SE803

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

1.	Does the bidder have an Apprenticeship Pr [Note: Participation may be by either direct			
		YES	NO	
2.	Has the bidder's Apprenticeship Program Commissioner of Labor?	m been registered w	ith, and approved by, the New	w York State
		YES	NO	
3.	Has the bidder's Apprenticeship Program opportunities?	m had three years o	f successful experience in pro	viding career
		YES	NO	
exper	e answer to Question #3 is "Yes", the bid ience the Apprenticeship Program has had it if necessary.			
		. 4		·
				-
	4			
Bidde	er:			
By:			Title:	
Date:	(Signature of Partner or Cor	porate Officer)		
CITY	OF NEW YORK	20		BID BOOKLET

DEPARTMENT OF DESIGN AND CONSTRUCTION

DECEMBER 2013

Pro	ject	ID.	

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:		
DDC Project Number:		
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 General Building Construction Residential Building Construction Nonresidential Building Construction Heavy Construction, except building Highway and Street Construction Heavy Construction, except highway 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)	<u> </u>	THIS PROJECT

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.

				Project ID.
The Contractor mocontractors with le	ust indi ess thar	cate its <u>Intra</u> state and <u>Inter</u> state El three years of experience, the EN	MR for the past IR will be con	st three years. [Note: For usidered to be 1.00].
YEAR		<u>INTRA</u> STATE RATE		INTERSTATE RATE
				·
contractor must a	ittach,	Interstate EMR for any of the p to this questionnaire, a written vas taken to correct the situation	explanation f	or the rating and identify
4. OSHA Inform	ation:			
YES	_NO	Contractor has received a willful Department of Buildings (NYCD		
YES	_NO	Contractor has had an incident re work-related fatalities) or an inci hours (all work-related in-patient losses of an eye).	dent requiring	OSHA notification within 24
employees, on a ye	early bases". T	and Health Act (OSHA) of 1970 rusis to complete and maintain on fi his form is commonly referred to	ile the form en	titled "Log of Work-related
The OSHA 300 Lo employees.	g must	be submitted for the last three year	ars for contrac	tors with more than ten
The Contractor mu payroll records for	st indic	eate the total number of hours wor	ked by its emp	ployees, as reflected in
past three years. For each given ye illnesses reported	The Ine ar, th on th	bmit the Incident Rate for Loss acident Rate is calculated in acce total number of incidents is to e OSHA 300 Log. The 200,00 hours a week, fifty weeks per y	cordance with the total num 10 hours rep	n the formula set forth belov iber of non-fatal injuries an
ncident Rate =		<u>Total Num</u> Total Number of H	ber of Inciden ours Worked	
YEAR	T	OTAL NUMBERS OF HOURS WOI EMPLOYEES	RKED BY	INCIDENT RATE
	_			
	-			

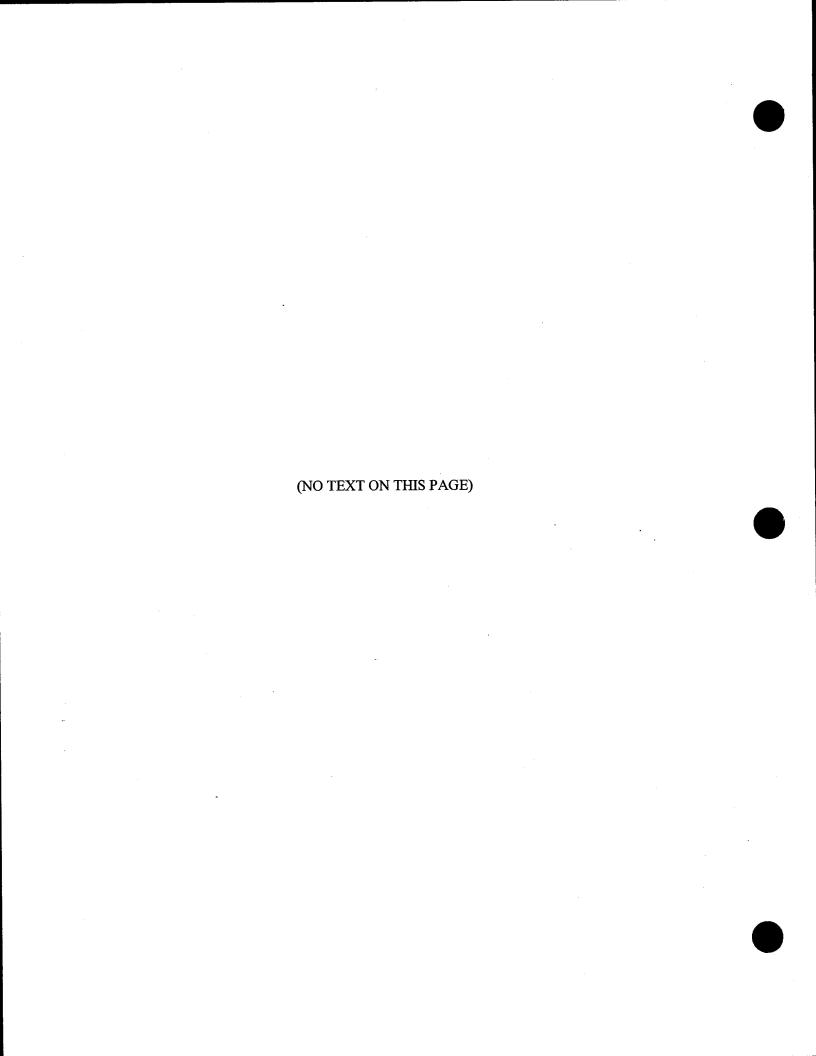
Project ID.	
-------------	--

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	8.7
Highway and Street Construction	9.7
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	· · ·
Carpentry and Floor Work	10.5
Roofing, Siding, and Sheet Metal	12.2
Concrete Work	10.3
Specialty Trade Contracting	8.6
opocially 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):
YESNO	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:	By: (Signature of Owner, Partner, Corporate Officer)
	Title:



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.

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.

 	 ·	· 1	 	
Architect/Engineer Reference & Tel. No. if different from owner				
Owner Reference & Tel. No.				
Date Completed				
Contract Amount (\$000)				
Contract Type				
Project & Location				

PROJECT REFERENCES - CONTRACTS CURRENTLY UNDER CONSTRUCTION BY THE BIDDER ä

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

	 ···	,	 	
Architect/Engineer Reference & Tel. No. if different from owner				
Owner Reference & Tel. No.				
Date Scheduled to Complete				
Uncompleted Portion (\$000)				
Subcontracted to Others (\$000)				
Contract Amount (\$000)				
Contract				
Project & Location				

BID BOOKLET DECEMBER 2013

27

PROJECT REFERENCES – PENDING CONTRACTS NOT YET STARTED BY THE BIDDER ن

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

Architect/Engineer Reference & Tel. No. if different from owner				
Owner Reference & Tel. No.		·		
Date Scheduled to Start				
Contract Amount (\$000)				
Contract Type				
Project & Location				

CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION

BID BOOKLET DECEMBER 2013

28

(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, 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 regulation
Date Signature
WILLFUL OR FRAUDULENT FALSIFICATION OF ANY DATA OR INFORMATION SUBMITTED HEREWITH MAY RESULT IN THE TERMINATION OF ANY CONTRACT BETWEEN

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



- Please fill in all the fields and DO NOT leave any field blank.
- 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 talse 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,
	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: Difazio Ind., LLC DIBIA Difazio Industries
	Vendor's Address: 38 Kinsey Place, Staten Island, N.Y. 10303
	Vendor's EIN or TIN: 73-1706369 Requesting Agency: NYC DDC
	Are you submitting this Certification as a parent? (Please circle one) Yes (No)
	Signature date on the last full vendor questionnaire signed by the submitting vendor: 5 30 16
,	Signature date on changed submission, if applicable, for the submitting vendor:





Principal Name	Date of signature on last full Principal Questionnaire	Date(s) of signature on Changed Submission (if applicable)
1 John Difazio	1/25/2014	
2 Marc DiFazio	1/25/2016	
3 Michele Massar	1 5/18/2016	
4		
5		de participato de la companya de la
6		
Check if additional changes were submitted a	and attach a document with the	date of additional submissions.
Certification This section is required This form must be signed and notarized. Ple Certified By:	ase complete this twice. Co	opies will not be accepted.
Manager.		
Title DIFAZIO Ind., LLC Name of Submitting Eptity	DIBLA DiFazio	Industries
- R		9/19/2016
Signature \(\sqrt{Signature} \)	CESAR PEDICAHITA Notary Public, State of New York No. 01PH8151715	Date
Notarized By:	Qualified in Richmond County Commission Express Aug. 21, 20	18
Notary Public	County License Issued	License Number
Sworn to before me on: $\frac{9/19/201}{Date}$	is .	

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:

- 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 <u>IRAN DIVESTMENT ACT</u>

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** PRINTED NAME TITLE Sworn to before me this ___ day of____, 20 Notary Public Dated:

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

33

(NO TEXT ON THIS PAGE)

The City of New York
Department of Small Business Services
Division of Labor Services
Contract Compliance Unit
110 William Street
New York, New York 10038
Phone: (212) 513 – 6323

Fax: (212) 618-8879

CONSTRUCTION EMPLOYMENT REPORT INSTRUCTIONS

WHO MUST FILE A CONSTRUCTION EMPLOYMENT REPORT

A Construction Employment Report (ER) must be filed if you meet the following conditions:

CONTRACT FUNDING SOURCE	CONTRACTOR	CONTRACT VALUE	SUBMISSION REQUIREMENT
Federal/Federally assisted	Prime and subcontractors	\$10,000 or greater	
	Prime contractor	\$1,000,000 or greater	Construction Employment Report
City and state funded	0.1 1 1	\$750,000 or greater	
	Subcontractor	Less than \$750,000	Less than \$750,000 Certificate (City/State Only)

Prime Contractor:

- A general contractor or construction manager selected to perform work on a construction project funded (in whole
 or in part) by the federal government with a proposed contract value of \$10,000 or more.
- A general contractor or construction manager selected to perform work on a construction project funded or assisted by the City of New York with a proposed contract value of \$1,000,000 or more.

Subcontractor:

- A subcontractor selected to perform work on a construction project funded (in whole or in part) by the federal government with a proposed contract value of \$10,000 or more.
- A subcontractor selected to perform work on a construction project funded or assisted by the City of New York with a proposed contract value of \$750,000 or more.
- A subcontractor selected to perform work on a construction project funded or assisted by the City of New York with a proposed contract value of less than \$750,000 must submit a "Less than \$750,000" certificate.

WHERE TO FILE

Employment Reports must be filed with the City agency awarding the contract. If you are a contractor or subcontractor who will be working for a private developer in receipt of funding or assistance from the City, the ER must be filed with the City agency with jurisdiction over the developer's project.

DLS REVIEW PROCESS

In accordance with Executive Order 50 (EO 50), upon receipt by DLS of a completed ER, DLS conducts a review of the contractor's current employment policies, practices and procedures, as well as perform a statistical analysis of the contractor's workforce, if necessary. The process is as follows:

- Within five (5) business days, DLS will review the ER for completeness and accuracy. If any information is omitted
 or incorrect, or if necessary documents are not submitted, the submission shall be deemed incomplete and DLS
 will inform the contractor. The substantive compliance review does not commence until the submission is
 complete. An incomplete submission will delay the review process and may preclude or interrupt the
 contract approval.
- If the ER submission is complete, the compliance review will proceed, resulting in one of the following:

Certificate of Approval

The contractor is found to be in compliance with all applicable laws and regulations. The approval is valid for 36 months.

Continued Approval Certificate

The contractor has been issued a Certificate of Approval in the previous 36 months which is good for the applicable contract.

Conditional Certificate of Compliance

The contractor is required to take corrective actions in order to be in compliance with EO 50. The contractor must meet the conditions within one month of the issue of the Conditional Certificate.

Determination of Nonperformance

The contractor has failed to take the required corrective actions stipulated in the Conditional Certificate. A determination of nonperformance may prevent a contractor from receiving an award of a contract.

HOW TO COMPLETE THE EMPLOYMENT REPORT

Contents

General Information

Part I: Contractor/Subcontractor Information
Part II: Employment Policies and Practices

Part III: Contract Bid Information and Projected and Current Workforce Forms

Signature Page

PART I: CONTRACTOR/SUBCONTRACTOR INFORMATION

Questions 7 – 11: Please provide the required contact information for your company. All contracts must have a designated Equal Employment Officer.

Question 12: If you are a subcontractor, you must state the name of the contractor for whom you are providing the construction services.

Question 13: Please provide the number of permanent employees in your company.

Question 14a-g: The Project Identification Number (PIN) and the Contract Registration ID Number (CT#) can be obtained from the City agency. Provide a description of the trade work you will perform on this project and the address where the work will be performed. Subcontractors can obtain this information from the contract they have with the prime contractor.

Questions 15 – 18: If your company has received a valid Certificate of Approval within the past 36 months, been audited by the United States Department of Labor, Office of Federal Contract Compliance Programs (OFCCP), or if your company has submitted an ER for a different contract for which you have not yet received a compliance certificate, then you only need to complete and submit the following:

- · General Information section
- Part I Contractor/Subcontractor Information
- · Form B Projected Workforce
- Signature Page

If your company is currently waiting for an approval on another contract previously submitted, be certain to identify the date on which you submitted the completed Employment Report, the name of the City contracting agency with which the contract was made, and the name and telephone number of the person to whom the Employment Report was submitted.

If your company was issued a Conditional Certificate of Approval, all required corrective actions must have been taken or DLS will not issue a Continued Certificate.

Question 18:

If the company was audited by the OFCCP, also provide the following:

- Identify the reviewing OFCCP office by its name and address
- If an unconditional certificate of compliance was issued by the OFCCP, attach a copy of the certificate in lieu of completing Parts II and III;
- Include copies of all corrective actions and documentation of OFCCP's performance; and
- Provide a copy of all stated OFCCP findings.

Question 19:

Please provide a copy of any Collective Bargaining Agreement(s) which is negotiated through an employer trade association on behalf of your organization or any of its affiliates.

PART II: EMPLOYMENT POLICIES AND PRACTICES

Remember to label all documents with the question number for which they are submitted.

Questions 20a – j: You must respond to the questions as to whether or not your firm has documents reflecting written policies, benefits and procedures. If so, then you must identify by name each document in which the policy(ies), procedure(s) and benefit(s) is located and submit copies of all of the document(s). If your firm follows unwritten practices or procedures, include an explanation of how they operate. Please submit the most current document(s), including all applicable amendments. Label each document and/or unwritten practice according to the question to which it corresponds (e.g. 20a, 20b, etc.)

Questions 21a – h: Inquires about the manner/methods by which you comply with the requirements of the Immigration Reform and Control Act of 1986 (IRCA).

Question 22: Inquires into where and how I-9 forms are maintained and stored.

Questions 23a – e: Inquires into whether or not there is a requirement that an applicant or employee be subjected to a medical examination at any given time. Copes of the medical information questionnaire and instructions must be submitted with the Employment Report.

Question 24: Indicate the existence and location of all statements of your firm's Equal Employment Opportunity policy and attach a copy of each statement.

Question 25: Submit any current Affirmative Action Plan(s) created pursuant to Executive Order 11246.

Question 26: If your firm or collective bargaining agreement has an internal grievance procedure, indicate this and submit a copy of the policy and procedure. If unwritten, explain its nature and operation. Explain how your firm's procedure addresses EEO complaints.

Question 27: If your employees have used the procedure in the last three (3) years, please submit an explanation in the format indicated below:

1. Number of complaint(s)

2. Nature of the complaint(s)

3. Position(s) of the conducted? disposition Y/N

3. Position(s) of the conducted? Y/N

Question 28:

Indicate whether in the past three (3) years complaints have been filed with a court of law or administrative agency, naming your company as a defendant (or respondent) in a complaint alleging violation of any anti-discrimination or affirmative action laws. If yes, develop and submit a log to show, for each administrative/and or judicial action filed, the following information:

` '	2. Administrative agency	3. Nature of the	4. Current status	5. If not pending, the
complainant(s)	or court in which action	complaint(s)		complaint's disposition
	was filed			· ·

Question 29:

Identify each job for which a physical qualification exists. Identify and explain the physical qualification(s) for each stated job. Submit job descriptions for each job and the reasons for the qualifications.

Question 30:

Identify each job for which there exists any qualification related to age, race, color, national origin, sex, creed, disability, marital status, sexual orientation or citizenship status. Identify and explain the specific related qualification for each job stated. Submit job descriptions for each job and the reasons for the qualifications.

PART III: CONTRACT BID INFORMATION AND PROJECTED AND CURRENT WORKFORCE FORMS

FORM A: CONTRACT BID INFORMATION - USE OF SUBCONTRACTORS/TRADES

Your projections for the utilization of subcontractors on the proposed contract are to be provided in this section. A chart has been provided for the identification of subcontractors. Information is to be provided to the extent known at the time the ER is filed for review by DLS. If the subcontractor's name is unknown, then write "unknown". Under "ownership", enter the appropriate race/ethnic and gender code. If the contract is federally funded or assisted and the subcontractor is being utilized in accordance with applicable federal requirements with respect to Minority Business Enterprise or Woman Business Enterprise requirements, enter the appropriate code. This will also apply to state funded contracts with similar requirements for minority and female owned businesses.

FORM B: PROJECTED WORKFORCE FOR WORK TO BE PERFORMED ON THIS PROJECT

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

FORM C: CURRENT WORKFORCE FOR WORK TO BE PERFORMED ON THIS PROJECT

For each trade *currently* engaged by your company for all work performed in NYC, enter the current workforce for Males and Females by trade classification in the charts provided.

SIGNATURE PAGE

The signatory of this Employment Report and all other documents submitted to DLS must be an official authorized to enter into a binding legal agreement. The signature page must be completed in its entirety and notarized. Only original signatures will be accepted.

The City of New York Department of Small Business Services Division of Labor Services Contract Compliance Unit 110 William Street, New York, New York 10038

Phone: (212) 513 - 6323

Fax: (212) 618-8879 CONSTRUCTION EMPLOYMENT REPORT

GENERAL INFORMATION

1.	Your contractual relationship in this contract is: Prime contractor_x_ Subcontractor	
1a.	Are M/WBE 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 EnterpriseLocally Based Business EnterpriseEmerging Business EnterpriseDisadvantaged Business Enterprise	9
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 M/WBEs 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 affiliate with	ed —
6.	Are you a Veteran owned company? Yes No	
PART	I: CONTRACTOR/SUBCONTRACTOR INFORMATION	
7.	Employer Identification Number or Federal Tax I.D. Email Addre	 :SS
8.	ONo	
•	Company Name	
9.	Company Address and Zip Code	
10.	Object On another Officer	
4.4	Chief Operating Officer Telephone Number	
11.	Designated Equal Opportunity Compliance Officer Telephone Number (If same as Item #10, write "same")	
12.	News of Drive Control of Control Drive	
	Name of Prime Contractor and Contact Person (If same as Item #8, write "same")	

13.	Number of employees in your company:	
14.	Contract information:	
	(a) Contracting Agency (City Agency)	(b) Contract Amount
	(c) Procurement Identification Number (PIN)	(d) Contract Registration Number (CT#)
	(e)Projected Commencement Date	(f)Projected Completion Date
	(g) Description and location of proposed contract:	•
15.	Has your firm been reviewed by the Division of La and issued a Certificate of Approval? Yes No	
	If yes, attach a copy of certificate.	
16.	Has DLS within the past month reviewed an Empleand issued a Conditional Certificate of Approval?	
	If yes, attach a copy of certificate.	
WIT	TE: DLS WILL NOT ISSUE A CONTINUED CERT TH THIS CONTRACT UNLESS THE REQUIRED ON NOITIONAL CERTIFICATES OF APPROVAL HAV	ORRECTIVE ACTIONS IN PRIOR
17.	Has an Employment Report already been submitted Employment Report) for which you have not yet reference. 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 au Labor, Office of Federal Contract Compliance Programmes	
	If yes,	

	(a) Nam 	ne and address of OFCCP office.
	` '	a Certificate of Equal Employment Compliance issued within the past 36 months? No
	If ye	s, attach a copy of such certificate.
	(c) Wer	e any corrective actions required or agreed to? Yes No
	If ye	s, attach a copy of such requirements or agreements.
	(d) Wer	e any deficiencies found? Yes No
	If ye	s, attach a copy of such findings.
19.	is respo	company or its affiliates a member or members of an employers' trade association which nsible for negotiating collective bargaining agreements (CBA) which affect construction ng? Yes No
	If yes, a	ttach a list of such associations and all applicable CBA's.
PART	II: DOC	UMENTS REQUIRED
20.	brochur	following policies or practices, attach the relevant documents (e.g., printed booklets, es, manuals, memoranda, etc.). If the policy(ies) are unwritten, attach a full explanation ractices. 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?

	firm require the completion of an I-9 Form	and Control Act of 1986 when <u>and of whom</u> does m?
	(a) Prior to job offer	Yes No
	(b) After a conditional job offer	Yes No
	(c) After a job offer	Yes No
	(d) Within the first three days on the job	Yes No
	(e) To some applicants	Yes No
ļ	(f) To all applicants	Yes No
	(g) To some employees	Yes No
	(h) To all employees	Yes No
	Explain where and how completed I-9 Formaintained and made accessible.	orms, with their supportive documentation, are
	Does your firm or any of its collective bar medical examination? Yes No	rgaining agreements require job applicants to tak
l	f yes, is the medical examination given:	
(a) Prior to a job offer Yes	s No
		s No
		s No
	d) To all applicants Yes	
	e) Only to some applicants Yes	
	f yes, list for which applicants below and questionnaire forms and instructions utili.	d attach copies of all medical examination or ized for these examinations.
	Do you have a written equal employment f yes, list the document(s) and page num	t opportunity (EEO) policy? Yes No mber(s) where these written policies are located.
	Minorities and WomenIndividuals with handicaps	
	Minorities and Women Individuals with handicaps Other. Please specify	
	Minorities and WomenIndividuals with handicapsOther. Please specify Does your firm or collective bargaining as	greement(s) have an internal grievance procedur
	Individuals with handicaps Other. Please specify	greement(s) have an internal grievance procedur

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

submitted with the underst requirements, as contained amended, and the implementation	d official signing) herewith is true and complete to the bestanding that compliance with New York (d in Chapter 56 of the City Charter, Executing Rules and Regulations, is a controlled the complete complete and complete complete complete and complete comp	City's equal employment cutive Order No. 50 (1980), as ractual obligation. I also agree on
Contractor's Name		
Name of person who prepa	ared this Employment Report	Title
Name of official authorized	I to sign on behalf of the contractor	Title
Telephone Number		
Signature of authorized off	icial	Date
If contractors are found to I 56 Section 3H, the Division data and to implement an e	be underutilizing minorities and females n of Labor Services reserves the right to employment program.	in any given trade based on Chapter request the contractor's workforce
Contractors who fail to com	nply with the above mentioned requiremoject to the withholding of final payment.	ents or are found to be in
termination of the contract	ations of any data or information submitt between the City and the bidder or cont to five years. Further, such falsification	ractor and in disapproval of future
Charter Chapter 56 of the 0	law and consistent with the proper disched City Charter and Executive Order No. 50 ation provided by a contractor to DLS sh	(1980) and the implementing Rules
· ·	Only original signatures accept	ted.
Sworn to before me this	day of 20	
Notary Public	Authorized Signature	Date

Page 6
Revised 8/13
FOR OFFICIAL USE ONLY: File No._____

CONTRACT BID INFORMATION: USE OF SUBCONTRACT STRADES FORM A.

2	
Yes	
ctor work on this contract? Y	
o you plan to subcontra	
ద	

If yes, complete the chart below. ς; 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.

PROJECTED DOLLAR VALUE OF SUBCONTRACT			
TRADE PROJECTED FOR USE BY SUBCONTRACTOR			
WORK TO BE PERFORMED BY SUBCONTRACTOR			
OWNERSHIP (ENTER APPROPRIATE CODE LETTERS BELOW)			
SUBCONTRACTOR'S NAME*			

*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

(TOT) Total by Column

(A) Apprentice (TRN) Trainee

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:			2	MALES				H	FEMALES			
Union Affiliation if applicable		(1) White	(2) Black	(3)	4)	(5) Native	(6) White	(7) Black	(8)	(6)	(10) Native	•
		Hisp.	Hisp.	Hisp.	Asian	Amer.	Hisp.	<u> </u>	Hisp.	Asian	Amer.	·
Total (Col. #1-10):	7											
Total Minority, Male & Female	I											
(Col. #2,3,4,5,7,8,9, & 10):	∢											
Total Female (Col. #6 – 10):	TRN											
	TOT											
	-											_

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

Page 9
Revised 8/13
FOR OFFICE SE ONLY: File No_

	ı	ı
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 (TOT) Total by Column

(A) Apprentice (TRN) Trainee

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.

	•	Σ	MALES				H	FEMALES		
Union Affiliation, if applicable	(1) White Non	(2) Black Non	(3)	(4)	(5) Native	(6) White	(7) Black Non	(8) K	(6)	(10) Native
	Hisp.	Hisp.	Hisp.	Asian	Amer.	Hisp.	Hisp.	Hisp.	Asian	Amer.
J Total (Col. #1-10):										
Total Minority, Male & Female										, '
(Col. #2,3,4,5,7,8,9, & 10):										
Total Female (Col. #6 – 10):										
101										

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

Page 11
Revised 8/13
FOR OFFICIA SE ONLY: File No.

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

(NO TEXT ON THIS PAGE)

The City of New York Department of Small Business Services Division of Labor Services Contract Compliance Unit 110 William Street, New York, New York 10038

Phone: (212) 513 - 6323 Fax: (212) 618-8879

CONSTRUCTION EMPLOYMENT REPORT

GENERAL INFORMATION

1.	Your contractual relationship in this contract is:	Prime contractor	_ Subcontractor_ x_	
1a.	Are M/WBE 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 EnterpriseWomen Owned Business EnterpriseDisadvantaged Business Enterprise		ed Business Enterprise usiness Enterprise	
2a.	If you are certified as an MBE, WBE, LBE, EBE of certified with?			
3.	Please indicate if you would like assistance from Scontracting opportunities: Yes No	BS in identifying certi	ified M/WBEs for	
4.	Is this project subject to a project labor agreement	? Yes No _		
5.	Are you a Union contractor? Yes No with		ich local(s) you affiliated	
6.	Are you a Veteran owned company? YesN	lo		
PAR1	I: CONTRACTOR/SUBCONTRACTOR INFORMA	ATION		
7.	Employer Identification Number or Federal Tax I.D).	Email Address	
8.				
	Company Name			
9.	Company Address and Zip Code			
10.				
	Chief Operating Officer	Telephone N	Number	
11.	Designated Equal Opportunity Compliance Officer (If same as Item #10, write "same")	Telephone N	Number	
12.			·	
	Name of Prime Contractor and Contact Person (If same as Item #8, write "same")			

13.	Number of employees in your company:	
14.	Contract information:	
	(a) Contracting Agency (City Agency)	(b) Contract Amount
	(c) Procurement Identification Number (PIN)	(d) Contract Registration Number (CT#)
	(e)Projected Commencement Date	(f)Projected Completion Date
	(g) Description and location of proposed contract:	
15.	Has your firm been reviewed by the Division of Lal and issued a Certificate of Approval? Yes No.	
	If yes, attach a copy of certificate.	
16.	Has DLS within the past month reviewed an Emploand issued a Conditional Certificate of Approval?	
	If yes, attach a copy of certificate.	
Wi ⁻	TE: DLS WILL NOT ISSUE A CONTINUED CERT IH THIS CONTRACT UNLESS THE REQUIRED C NDITIONAL CERTIFICATES OF APPROVAL HAV	ORRECTIVE ACTIONS IN PRIOR
17.	Has an Employment Report already been submitted Employment Report) for which you have not yet re 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 audiabor, Office of Federal Contract Compliance Prog	dited by the United States Department of

Page 2
Revised 8/13
FOR OFFICIAL USE ONLY: File No._____

	(a) Na 	me and address of OFCCP office.
		is a Certificate of Equal Employment Compliance issued within the past 36 months? S No
	lf y	es, attach a copy of such certificate.
	(c) We	re any corrective actions required or agreed to? Yes No
	lf y	es, attach a copy of such requirements or agreements.
	(d) We	re any deficiencies found? Yes No
	lf y	es, attach a copy of such findings.
19.	is respo	company or its affiliates a member or members of an employers' trade association which onsible for negotiating collective bargaining agreements (CBA) which affect construction ng? Yes No
	If yes, a	attach a list of such associations and all applicable CBA's.
PAR	ΓΙΙ: DOC	CUMENTS REQUIRED
20.	brochu	following policies or practices, attach the relevant documents (e.g., printed booklets, res, manuals, memoranda, etc.). If the policy(ies) are unwritten, attach a full explanation tractices. 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
	(b) After a conditional job offer Yes No
	(c) After a job offer Yes No
	(d) Within the first three days on the job Yes No
	(e) To some applicants Yes No
	(f) To all applicants Yes No
	(g) To some employees Yes No
	(h) To all employees Yes No
22.	Explain where and how completed I-9 Forms, with their supportive documentation, are maintained and made accessible.
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.
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) 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.						
Contractor's Name						
Name of person who prepared th	is Employment Report	Title				
Name of official authorized to sig	n on behalf of the contractor	Title				
Telephone Number						
Signature of authorized official		Date				
	bor Services reserves the righ	ales in any given trade based on Chapter at to request the contractor's workforce				
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/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	day of 20					
Notary Public	Authorized Signature	Date				

Page 6
Revised 8/13
FOR OFFICIAL USE ONLY: File No._____

CONTRACT BID INFORMATION: USE OF SUBCONTRACTOR STRADES FORM A.

- Do you plan to subcontractor work on this contract? Yes___ No_
- If yes, complete the chart below. 7

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.

PROJECTED DOLLAR VALUE OF	SUBCONIKACI			
TRADE PROJECTED FOR USE BY	201000000000000000000000000000000000000			
WORK TO BE PERFORMED BY SUBCONTRACTOR				
OWNERSHIP (ENTER APPROPRIATE CODE LETTERS BELOW)				
SUBCONTRACTOR'S NAME*			-	

*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

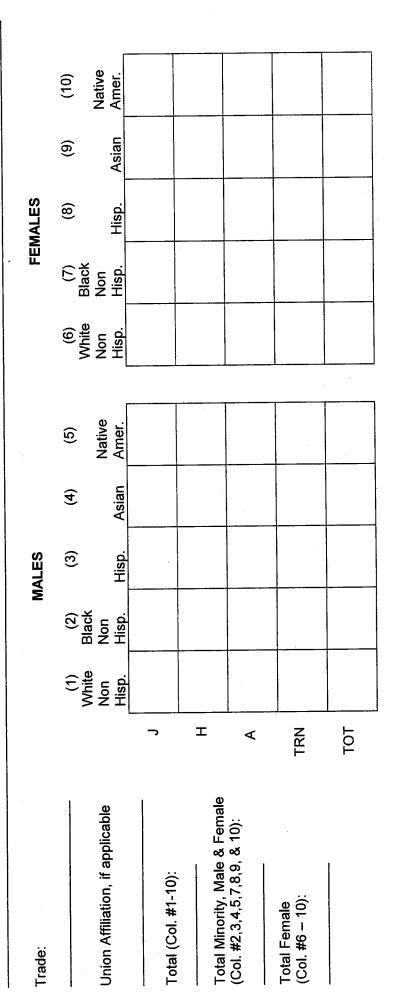
FORM B: PROJECTED WORKFORCE

TRADE CLASSIFICATION CODES

(J) Journeylevel Workers (H) Helper (TOT) Total by Column

(A) Apprentice (TRN) Trainee

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.



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

Page 9
Revised 8/13
FOR OFFICIA

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

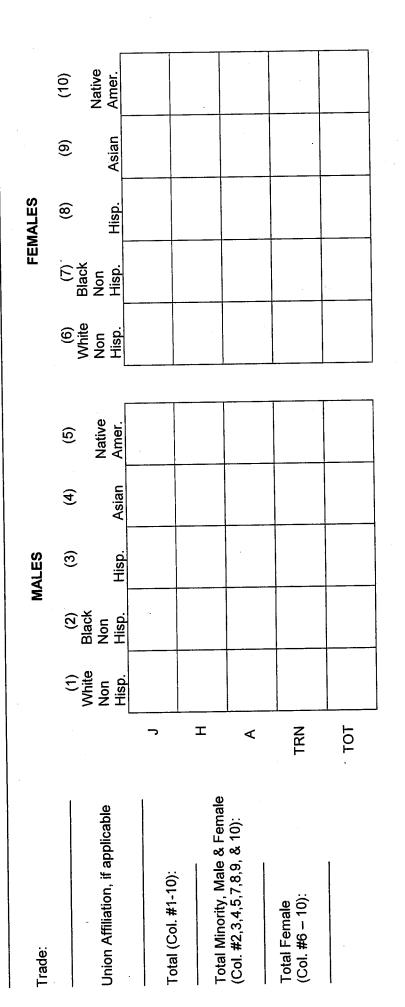
FORM C: CURRENT WORKFORCE

TRADE CLASSIFICATION CODES

(J) Journeylevel Workers (H) Helper (TOT) Total by Column

(A) Apprentice (TRN) Trainee

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.



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

Page 11
Revised 8/13
FOR OFFICIA E ONLY: File No.

Trade:			~	MALES			,	¥	FEMALES		
		(1) White	(2) Black	(3)	4)	(5)	(6) White		(8)	(6)	(10)
Union Affiliation, if applicable		Non Hisp.	Non Hisp.	Hisp.	Asian	Native Amer.	Non Hisp.	F	Non Hisp. Hisp.	Asian	Native Amer.
Total (Col. #1-10):	J										
Total Minority, Male & Female	I										
(Col. #2,3,4,5,7,8,9, & 10):	∢										
Total Female (Col. #6 – 10):	TRN										
	TOT										

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

(NO TEXT ON THIS PAGE)

The City of New York Department of Small Business Services Division of Labor Services Contract Compliance Unit 110 William Street, New York, New York 10038

Phone: (212) 513 - 6323 Fax: (212) 618-8879

Date	File Number
LESS THAN \$750,000 SUBC (CITY, STATE AN	
Are you currently certified as one of the following? Please ch	neck yes or no:
MBE YesNo WBE YesNo	LBE YesNo
DBE YesNo EBE YesNo	
If you are certified as an MBE, WBE, LBE, EBE or DBE, wha	t city/state agency are you certified with?
Please check one of the following if your firm would like infor	mation 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	
Company Name	Employer Identification Number or Federal Tax I.D
Company Address and Zip Code	
Contact Person (First Name, Last Name)	Telephone Number
Fax Number	E-mail Address
Description and location of proposed subcontract:	
Are you a Union contractor? Yes No If yes, pl	ease list which local(s) you affiliated with
Are you a Veteran owned company? YesNo	
Procurement Identification Number (PIN) (City contracts only)	Contract Registration Number (CT#) (City contracts only)

Revised 8/13 FOR OFFICIAL USE ONLY: File No._

Block and Lot Number (ICIP projects only)	Contract Amount	
above named owner or City age	ial signing) subcontractor to certify that said subcontractor's pro ency is less than \$750,000. This affirmation is made i Order No. 50 (1980) and the implementing Rules.	hereby certify that I am posed contract with the naccordance with NYC
contract between the City and the	s of any data or information submitted herewith may re ne bidder or contractor and in disapproval of future co ation may result in civil and/and or criminal prosecution	ntracts for a period of up to
Signature of authorized official		
		Date
Sworn to before me this	Only original signatures accepted. day of20	Date



INFRASTRUCTURE DIVISION BUREAU OF DESIGN

VOLUME 1 OF 3

PROJECT ID: SE803

FOR THE CONSTRUCTION OF SANITARY AND STORM SEWERS AND APPURTENANCES IN RAMBLE ROAD, ETC

INCLUDING WATER MAIN WORK

Together With All Work Incidental Thereto BOROUGH OF STATEN ISLAND CITY OF NEW YORK

	Contractor
Dated	, 20



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: SE803

FOR THE CONSTRUCTION OF SANITARY AND STORM SEWERS AND APPURTENANCES IN RAMBLE ROAD, ETC

INCLUDING WATER MAIN WORK

Together With All Work Incidental Thereto
BOROUGH OF STATEN ISLAND
CITY OF NEW YORK



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

DECEMBER 23, 2015

6-090



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

DECEMBER 23, 2015

PAID SICK LEAVE LAW CONTRACT RIDER

Introduction and General Provisions

The Earned Sick Time Act, also known as the Paid Sick Leave Law ("PSLL"), requires covered employees who annually perform more than 80 hours of work in New York City to be provided with paid sick time. Contractors of the City of New York or of other governmental entities may be required to provide sick time pursuant to the PSLL.

The PSLL became effective on April 1, 2014, and is codified at Title 20, Chapter 8, of the New York City Administrative Code. It is administered by the City's Department of Consumer Affairs ("DCA"); DCA's rules promulgated under the PSLL are codified at Chapter 7 of Title 6 of the Rules of the City of New York ("Rules").

Contractor agrees to comply in all respects with the PSLL and the Rules, and as amended, if applicable, in the performance of this agreement. Contractor further acknowledges that such compliance is a material term of this agreement and that failure to comply with the PSLL in performance of this agreement may result in its termination.

Contractor must notify the Agency Chief Contracting Officer of the City agency or other entity with whom it is contracting in writing within ten (10) days of receipt of a complaint (whether oral or written) regarding the PSLL involving the performance of this agreement. Additionally, Contractor must cooperate with DCA's education efforts and must comply with DCA's subpoenas and other document demands as set forth in the PSLL and Rules.

The PSLL is summarized below for the convenience of Contractor. Contractor is advised to review the PSLL and Rules in their entirety. On the website www.nyc.gov/PaidSickLeave there are links to the PSLL and the associated Rules as well as additional resources for employers, such as Frequently Asked Questions, timekeeping tools and model forms, and an event calendar of upcoming presentations and webinars at which Contractor can get more information about how to comply with the PSLL. Contractor acknowledges that it is responsible for compliance with the PSLL notwithstanding any inconsistent language contained herein.

Pursuant to the PSLL and the Rules:

Applicability, Accrual, and Use

An employee who works within the City of New York for more than eighty hours in any consecutive 12-month period designated by the employer as its "calendar year" pursuant to the PSLL ("Year") must be provided sick time. Employers must provide a minimum of one hour of sick time for every 30 hours worked by an employee and compensation for such sick time must

¹ Pursuant to the PSLL, if fewer than five employees work for the same employer, as determined pursuant to New York City Administrative Code §20-912(g), such employer has the option of providing such employees uncompensated sick time.

be provided at the greater of the employee's regular hourly rate or the minimum wage. Employers are not required to provide more than forty hours of sick time to an employee in any Year.

An employee has the right to determine how much sick time he or she will use, provided that employers may set a reasonable minimum increment for the use of sick time not to exceed four hours per day. In addition, an employee may carry over up to forty hours of unused sick time to the following Year, provided that no employer is required to allow the use of more than forty hours of sick time in a Year or carry over unused paid sick time if the employee is paid for such unused sick time and the employer provides the employee with at least the legally required amount of paid sick time for such employee for the immediately subsequent Year on the first day of such Year.

An employee entitled to sick time pursuant to the PSLL may use sick time for any of the following:

- such employee's mental illness, physical illness, injury, or health condition or the care of such illness, injury, or condition or such employee's need for medical diagnosis or preventive medical care;
- such employee's care of a family member (an employee's child, spouse, domestic partner, parent, sibling, grandchild or grandparent, or the child or parent of an employee's spouse or domestic partner) who has a mental illness, physical illness, injury or health condition or who has a need for medical diagnosis or preventive medical care;
- closure of such employee's place of business by order of a public official due to a public health emergency; or
- such employee's need to care for a child whose school or childcare provider has been closed due to a public health emergency.

An employer must not require an employee, as a condition of taking sick time, to search for a replacement. However, an employer may require an employee to provide: reasonable notice of the need to use sick time; reasonable documentation that the use of sick time was needed for a reason above if for an absence of more than three consecutive work days; and/or written confirmation that an employee used sick time pursuant to the PSLL. However, an employer may not require documentation specifying the nature of a medical condition or otherwise require disclosure of the details of a medical condition as a condition of providing sick time and health information obtained solely due to an employee's use of sick time pursuant to the PSLL must be treated by the employer as confidential.

If an employer chooses to impose any permissible discretionary requirement as a condition of using sick time, it must provide to all employees a written policy containing those requirements, using a delivery method that reasonably ensures that employees receive the policy. If such employer has not provided its written policy, it may not deny sick time to an employee because of non-compliance with such a policy.

Sick time to which an employee is entitled must be paid no later than the payday for the next regular payroll period beginning after the sick time was used.

Exemptions and Exceptions

Notwithstanding the above, the PSLL does not apply to any of the following:

- an independent contractor who does not meet the definition of employee under section 190(2) of the New York State Labor Law;
- an employee covered by a valid collective bargaining agreement in effect on April 1, 2014 until the termination of such agreement;
- an employee in the construction or grocery industry covered by a valid collective bargaining agreement if the provisions of the PSLL are expressly waived in such collective bargaining agreement;
- an employee covered by another valid collective bargaining agreement if such provisions are expressly waived in such agreement and such agreement provides a benefit comparable to that provided by the PSLL for such employee;
- an audiologist, occupational therapist, physical therapist, or speech language pathologist
 who is licensed by the New York State Department of Education and who calls in for
 work assignments at will, determines his or her own schedule, has the ability to reject or
 accept any assignment referred to him or her, and is paid an average hourly wage that is
 at least four times the federal minimum wage;
- an employee in a work study program under Section 2753 of Chapter 42 of the United States Code;
- an employee whose work is compensated by a qualified scholarship program as that term is defined in the Internal Revenue Code, Section 117 of Chapter 20 of the United States Code; or
- a participant in a Work Experience Program (WEP) under section 336-c of the New York State Social Services Law.

Retaliation Prohibited

An employer may not threaten or engage in retaliation against an employee for exercising or attempting in good faith to exercise any right provided by the PSLL. In addition, an employer may not interfere with any investigation, proceeding, or hearing pursuant to the PSLL.

Notice of Rights

An employer must provide its employees with written notice of their rights pursuant to the PSLL. Such notice must be in English and the primary language spoken by an employee, provided that DCA has made available a translation into such language. Downloadable notices are available on DCA's website at http://www.nyc.gov/html/dca/html/law/PaidSickLeave.shtml.

Any person or entity that willfully violates these notice requirements is subject to a civil penalty in an amount not to exceed fifty dollars for each employee who was not given appropriate notice.

Records

An employer must retain records documenting its compliance with the PSLL for a period of at least three years, and must allow DCA to access such records in furtherance of an investigation related to an alleged violation of the PSLL.

Enforcement and Penalties

Upon receiving a complaint alleging a violation of the PSLL, DCA has the right to investigate such complaint and attempt to resolve it through mediation. Within 30 days of written notification of a complaint by DCA, or sooner in certain circumstances, the employer must provide DCA with a written response and such other information as DCA may request. If DCA believes that a violation of the PSLL has occurred, it has the right to issue a notice of violation to the employer.

DCA has the power to grant an employee or former employee all appropriate relief as set forth in New York City Administrative Code 20-924(d). Such relief may include, among other remedies, treble damages for the wages that should have been paid, damages for unlawful retaliation, and damages and reinstatement for unlawful discharge. In addition, DCA may impose on an employer found to have violated the PSLL civil penalties not to exceed \$500 for a first violation, \$750 for a second violation within two years of the first violation, and \$1,000 for each succeeding violation within two years of the previous violation.

More Generous Polices and Other Legal Requirements

Nothing in the PSLL is intended to discourage, prohibit, diminish, or impair the adoption or retention of a more generous sick time policy, or the obligation of an employer to comply with any contract, collective bargaining agreement, employment benefit plan or other agreement providing more generous sick time. The PSLL provides minimum requirements pertaining to sick time and does not preempt, limit or otherwise affect the applicability of any other law, regulation, rule, requirement, policy or standard that provides for greater accrual or use by employees of sick leave or time, whether paid or unpaid, or that extends other protections to employees. The PSLL may not be construed as creating or imposing any requirement in conflict with any federal or state law, rule or regulation.

HIRING AND EMPLOYMENT RIDER: HIRENYC AND REPORTING REQUIREMENTS

Introduction

This Rider shall apply to all contracts for goods, services, and construction with a value of one million dollars (\$1,000,000.00) or more, provided, however, that certain requirements of the Rider shall only apply as indicated below. This Rider addresses the HireNYC process, including reporting obligations under the HireNYC process, and certain other reporting requirements imposed by law. In general, the HireNYC process under this Rider requires the Contractor to enroll with the HireNYC portal for the City of New York ("the City") found within the Department of Small Business Services's ("SBS") website, to disclose all entry to mid-level job opportunities described in this Rider arising from this contract and located in New York City, and to agree to interview qualified candidates from HireNYC for those opportunities.

HireNYC Requirements

A. Enrollment

The Contractor shall enroll with the HireNYC system, found at www.nyc.gov/sbs, within thirty (30) days after the registration of this Contract pursuant to Section 328 of the New York City Charter. The Contractor shall provide information about the business, designate a primary contact and say whether it intends to hire for any entry to mid-level job opportunities arising from this contract and located in New York City, and, if so, the approximate start date of the first hire.

B. Job Posting Requirements

Once enrolled in HireNYC, the Contractor agrees to update the HireNYC portal with all entry to mid-level job opportunities arising from this contract and located in New York City, if any, which shall be defined as jobs requiring no more than an associate degree, as provided by the New York State Department of Labor (see Column F of https://labor.ny.gov/stats/2012-2022-NYS-Employment-Prospects.xls). The information to be updated includes the types of entry and mid-level positions made available from the work arising from the contract and located in New York City, the number of positions, the anticipated schedule of initiating the hiring process for these positions, and the contact information for the Contractor's representative charged with overseeing hiring. The Contractor must update the HireNYC portal with any hiring needs arising from the contract and located in New York City, and the requirements of the jobs to be filled, no less than three weeks prior to the intended first day of employment for each new position, except with the permission of SBS, not to be unreasonably withheld, and must also update the HireNYC portal as set forth below.

After enrollment through HireNYC and submission of relevant information, SBS will work with the Contractor to develop a recruitment plan which will outline the candidate screening process,

and will provide clear instructions as to when, where, and how interviews will take place. HireNYC will screen applicants based on employer requirements and refer applicants whom it believes are qualified to the Contractor for interviews. The Contractor must interview referred applicants whom it believes are qualified.

After completing an interview of a candidate referred by HireNYC, the Contractor must provide feedback via the portal within twenty (20) business days to indicate which candidates were interviewed and hired, if any. In addition, the Contractor shall provide the start date of new hires, and additional information reasonably related to such hires, within twenty (20) business days after the start date. In the event the Contractor does not have any job openings covered by this Rider in any given year, the Contractor shall be required to provide an annual update to HireNYC to that effect. For this purpose, the reporting year shall run from the date of the registration of the contract and each anniversary date.

These requirements do not limit the Contractor's ability to assess the qualifications of prospective workers, and to make final hiring and retention decisions. No provision of this Rider shall be interpreted so as to require the Contractor to employ any particular worker.

In addition, the provisions of this Rider shall not apply to positions that the Contractor intends to fill with employees employed pursuant to the job retention provision of Section 22-505 of the Administrative Code of the City of New York. The Contractor shall not be required to report such openings with HireNYC. However, the Contractor shall enroll with the HireNYC system pursuant to Section A, above, and, if such positions subsequently become open, then the remaining provisions of this Rider will apply.

C. Breach and Liquidated Damages

If the Contractor fails to comply with the terms of the contract and this Rider (1) by not enrolling its business with HireNYC; (2) by not informing HireNYC, as required, of open positions; or (3) by failing to interview a qualified candidate, the contracting agency may assess liquidated damages in the amount of two-thousand five hundred dollars (\$2,500.00) per breach. For all other events of noncompliance with the terms of this Rider, the agency may assess liquidated damages in the amount of five hundred dollars (\$500) per breach.

Furthermore, in the event the Contractor breaches the requirements of this Rider during the term of the contract, the City may hold the Contractor in default of this contract.

Audit Compliance

In addition to the auditing requirements set forth in other parts of the contract, the Contractor shall permit SBS and the City to inspect any and all records concerning or relating to job openings or the hiring of individuals for work arising from the contract and located in New York City. The Contractor shall permit an inspection within seven (7) business days of the request.

Other Reporting Requirements

The Contractor shall report to the City, on a monthly basis, all information reasonably requested by the City that is necessary for the City to comply with any reporting requirements imposed by law or rule, including any requirement that the City maintain a publicly accessible database. In addition, the Contractor agrees to comply with all reporting requirements imposed by law or rule, or as otherwise requested by the City.

Construction Requirements

Construction contractors shall comply with the HireNYC requirements set forth above for all non-trades jobs (e.g., for an administrative position arising out of the work of the contract and located in New York City) as set forth above.

In addition, construction contractors shall reasonably cooperate with SBS and the City on specific outreach events, including Hire on the Spot events, for the hiring of trades workers for the work of this contract.

Further, this contract shall be subject to a project labor agreement if so required elsewhere in this contract.

Federal Hiring Requirements

The Contractor shall comply with all federal hiring requirements as may be set forth elsewhere in this contract, including, as applicable:

- Section 3 of the HUD Act of 1968, which requires, to the greatest extent feasible, economic opportunities for 30 percent of new hires be given to low- and very low-income persons, particularly persons who are recipients of HUD assistance for housing.
- Executive Order 11246, which prohibits discrimination in employment due to race, color, religion, sex or national origin, and requires the implementation of goals for minority and female participation for work involving any Construction trade.

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NOTICE TO BIDDERS

Please be advised that the City of New York has issued a new Standard Construction Contract. The new Contract, which is incorporated in this bid, is significantly different from the 2008 version previously used by the City. A listing of some of the significant changes is provided below. This notice is only a partial listing. Please refer to the Contract itself for a full understanding of the changes and the actual text of the changes that were made. The text of the revised Standard Construction Contract is the controlling document should there be any discrepancies between this notice and the Standard Construction Contract.

Significant changes include the following:

ARTICLE 11 DAMAGES CAUSED BY DELAYS

In 2008, the City embarked on a pilot project to test the use of new construction contract language altering the allocation of the risk of project delays, as between the City and the contractor. The City has determined to make the pilot project language the standard language for all City construction contracts. Accordingly, there is now one Standard City Construction Contract that is to be used by all agencies for all bids released after the release of the new contract. The damages for delay language is Article 11. Please note that changes have been made to the damages for delay provisions from the pilot to the adopted version.

ARTICLE 22 INSURANCE

Changes have been made to the insurance provisions, including incorporating requirements that the insurance provided comply with recent NYC Department of Buildings regulations specifying required dollar limits for CGL insurance for certain projects and requiring proof of builder's risk insurance prior to Work commencing rather than within 10 days of award.

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.

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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

TABLE OF CONTENTS

SECTION 1.	DESCRIPTION AND LOCATION OF WORK	1
SECTION 2.	TIME AND PLACE FOR RECEIPT OF BIDS	1
SECTION 3.	DEFINITIONS	1
SECTION 4.	INVITATION FOR BIDS AND CONTRACT DOCUMENTS	
SECTION 5.	PRE-BID CONFERENCE	-
SECTION 6.	AGENCY CONTACT	5
SECTION 7.	BIDDER'S OATH	5
SECTION 8.	EXAMINATION AND VIEWING OF SITE,	4
	CONSIDERATION OF OTHER SOURCES OF INFORMATION	
	AND CHANGED CONDITIONS	2
SECTION 9.	EXAMINATION OF PROPOSED CONTRACT	2
SECTION 10.	FORM OF BID	3
SECTION 11.	IRREVOCABILITY OF BID	3
SECTION 12.	ACKNOWLEDGMENT OF AMENDMENTS	4
SECTION 13.	BID SAMPLES AND DESCRIPTIVE LITERATURE	4
SECTION 14.	PROPRIETARY INFORMATION/TRADE SECRETS	4
SECTION 15.	PRE-OPENING MODIFICATION OR WITHDRAWAL OF BIDS	4
SECTION 16.	BID EVALUATION AND AWARD	4
SECTION 17.	LATE BIDS, LATE WITHDRAWALS AND LATE MODIFICATIONS	5
SECTION 18.	WITHDRAWAL OF BIDS.	5
SECTION 19.	MISTAKE IN BIDS	5
SECTION 20.	LOW TIE BIDS	6
SECTION 21.	REJECTION OF BIDS	6
SECTION 22.	RIGHT TO APPEAL DETERMINATIONS OF	Ū
	NON-RESPONSIVENESS OR NON-RESPONSIBILITY AND	
	RIGHT TO PROTEST SOLICITATIONS AND AWARD	7
SECTION 23.	AFFIRMATIVE ACTION AND EQUAL	
	EMPLOYMENT OPPORTUNITY	7
SECTION 24.	VENDEX QUESTIONNAIRES	7
SECTION 25.	COMPLAINTS ABOUT THE BID PROCESS	8
SECTION 26.	BID, PERFORMANCE AND PAYMENT SECURITY	8
SECTION 27.	FAILURE TO EXECUTE CONTRACT	9
SECTION 28.	BIDDER RESPONSIBILITIES AND QUALIFICATIONS	9
SECTION 29.	EMPLOYMENT REPORT	10
SECTION 30.	LABOR LAW REQUIREMENTS	10
SECTION 31.	INSURANCE	10
SECTION 32.	LUMP SUM CONTRACTS	11
SECTION 33.	UNIT PRICE CONTRACTS	11
SECTION 34.	EXCISE TAX	11
SECTION 35.	LICENSES AND PERMITS	11
SECTION 36.	MULTIPLE PRIME CONTRACTORS	11
SECTION 37.	LOCALLY BASED ENTERPRISE REQUIREMENTS (LBE)	12
SECTION 38.	BID SUBMISSION REQUIREMENTS	13
SECTION 39.	COMPTROLLER'SCERTIFICATE	14
SECTION 40.	PROCUREMENT POLICY BOARD RULES	14
SECTION 41.	DDC SAFETY REQUIREMENTS	14

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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-l 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

- Except for titles, sub-titles, headings, running headlines, tables of contents and indices (all (A) 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.
 - All provisions required by law to be inserted in this Contract, whether actually inserted or (1)
 - (2) The Contract Drawings and Specifications
 - The General Conditions, the General Requirements and the Special Conditions, if any (3)
 - (4) The Contract
 - The Information for Bidders; Request for Proposals; Notice of Solicitation and Proposal (5) For Bids; Bid or Proposal, and, if used, the Bid Booklet
 - The Budget Director's Certificate; all Addenda issued prior to the receipt of the bids; the (6) Notice of Award; Performance and Payment Bonds, if required; and the Notice to Proceed with the Work.
- 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.
- 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.
- 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.

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. <u>Bid Evaluation and Award</u>

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.

<u>Restriction</u>: 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.

Mistake in Bids

(A) <u>Mistake Discovered Before Bid Opening</u>: 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) <u>Mistakes Discovered Before Award</u>

- (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) <u>Rejection of All Bids</u>: 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) <u>Rejection of All Bids and Negotiation With All Responsible Bidders</u>: 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
 - 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. <u>Right to Appeal Determinations of Non-Responsiveness or Non-Responsibility and Right to Protest Solicitations and Award</u>

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. <u>VENDEX Questionnaires</u>

- (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) <u>Submission</u>: 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.
 - 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.
 - 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) <u>Performance and Payment Security</u>: Performance and Payment Security must be provided in an amount and type specified in Attachment 1 (page A-l 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) <u>Acceptable Types of Security</u>: 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
 - 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: (I) 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.fins.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) <u>Power of Attorney</u>: 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. <u>Bidder Responsibilities and Qualifications</u>

- (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) <u>General</u>: 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) <u>Records</u>: 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. <u>Lump Sum Contracts</u>

- (A) <u>Comparison of Bids</u>: 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) <u>Variations from Engineer's Estimate</u>: 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) <u>Comparison of Bids</u>: 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) <u>Variations from Engineer's Estimate</u>: 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. <u>Licenses and Permits</u>

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

36. <u>Multiple Prime Contractors</u>

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 its 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. <u>Bid Submission Requirements</u>

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

- (1) Bid Schedule and Bid Form, including Affirmation
- (2) Bid Security (if required, see Attachment 1 on Page A-1)
- (3) M/WBE Subcontactor 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.

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

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.

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

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.

City of New York Department of Design and Construction: Safety Requirements 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

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

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 Safety and Site Support- Quality Assurance and Construction Safety

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 noncompliances, 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

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

- 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.

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

- 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.

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

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.

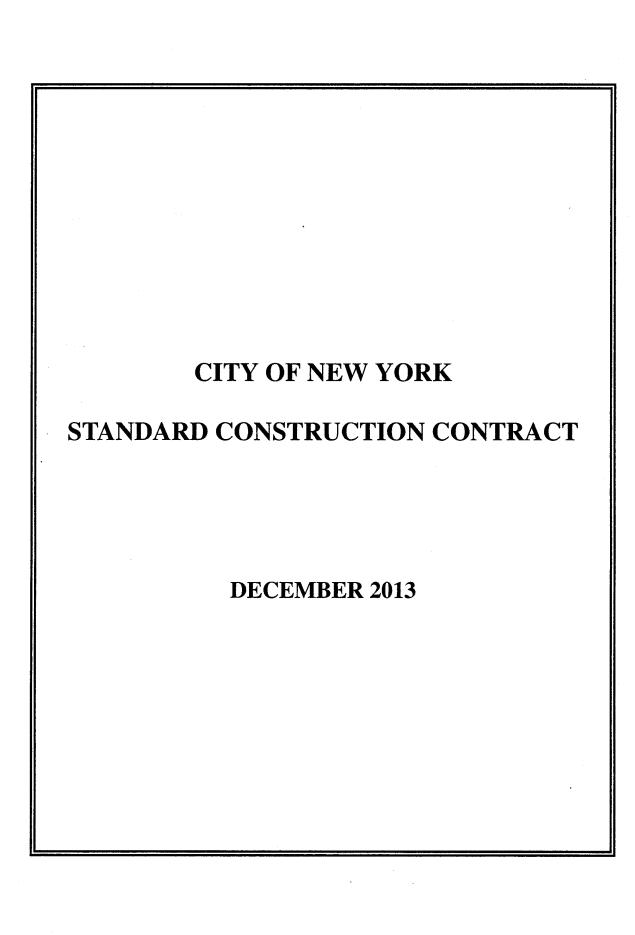
24

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:
 - For policies provided pursuant to all of Article 22.1 other than Article 22.1.2, 22.3.3 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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TABLE OF CONTENTS

CHAPTER I		
THE CONTRA	ACT AND DEFINITIONS	٠.
ARTICLE 1.	THE CONTRACT	1
ARTICLE 2.	DEFINITIONS	1
CHAPTER II		
	ND ITS PERFORMANCE	
ARTICLE 3.	CHARACTER OF THE WORK	· A
ARTICLE 4.	MEANS AND METHODS OF CONSTRUCTION	4
ARTICLE 5.	COMPLIANCE WITH LAWS	5
ARTICLE 6.	INSPECTION	5 10
ARTICLE 7.	PROTECTION OF WORK AND OF PERSONS AND	10
	PROPERTY; NOTICES AND INDEMNIFICATION	11
CHAPTER III		
TIME PROVIS	<u>IONS</u>	
ARTICLE 8.	COMMENCEMENT AND PROSECUTION OF THE WORK	12
ARTICLE 9.	PROGRESS SCHEDULES	12
ARTICLE 10.	REQUESTS FOR INFORMATION OR APPROVAL	13
ARTICLE 11.	NOTICE OF CONDITIONS CAUSING DELAY AND	10
	DOCUMENTATION OF DAMAGES CAUSED BY DELAY	13
ARTICLE 12.	COORDINATION WITH OTHER CONTRACTORS	17
ARTICLE 13.	EXTENSION OF TIME FOR PERFORMANCE	18
ARTICLE 14.	COMPLETION AND FINAL ACCEPTANCE OF THE WORK	21
ARTICLE 15.	LIQUIDATED DAMAGES	22
ARTICLE 16.	OCCUPATION OR USE PRIOR TO COMPLETION	22
CHAPTER IV		
	CTS AND ASSIGNMENTS	
ARTICLE 17.	SUBCONTRACTS	23
ARTICLE 18.	ASSIGNMENTS	25

TABLE OF CONTENTS

CHAPTER V				
CONTRACTO	R'S SECURITY AND GUARANTY			
		26		
ARTICLE 19.	SECURITY DEPOSIT	26 26		
ARTICLE 20.	PAYMENT GUARANTEE	20 29		
ARTICLE 21.	RETAINED PERCENTAGE			
ARTICLE 22.	INSURANCE	29		
ARTICLE 23.	MONEY RETAINED AGAINST CLAIMS	35 36		
ARTICLE 24.	MAINTENANCE AND GUARANTY	30		
CHAPTER VI				
CHANGES, EX	TRA WORK AND DOCUMENTATION OF CLAIM			
ARTICLE 25.	CHANGES	37		
ARTICLE 26.	METHODS OF PAYMENT FOR OVERRUNS AND			
ARTICLE 20.	EXTRA WORK	37		
ARTICLE 27.	RESOLUTION OF DISPUTES	40		
ARTICLE 28.	RECORD KEEPING FOR EXTRA OR DISPUTED WORK OR			
THE TOTAL SOL	WORK ON A TIME & MATERIALS BASIS	44		
ARTICLE 29.	OMITTED WORK	45		
ARTICLE 30.	NOTICE AND DOCUMENTATION OF COSTS AND			
	DAMAGES; PRODUCTION OF FINANCIAL RECORDS	45		
CHAPTER VII				
POWERS OF T	HE RESIDENT ENGINEER, THE ENGINEER			
OR ARCHITEC	CT AND THE COMMISSIONER			
ARTICLE 31.	THE RESIDENT ENGINEER	46		
ARTICLE 32.	THE ENGINEER OR ARCHITECT OR PROJECT MANAGER	47		
ARTICLE 33.	THE COMMISSIONER	47		
ARTICLE 34.	NO ESTOPPEL	48		
CHAPTER VIII				
LABOR PROV	SIONS			
ARTICLE 35.	EMPLOYEES	48		
ARTICLE 35. ARTICLE 36.	NO DISCRIMINATION	50		
ARTICLE 36. ARTICLE 37.	LABOR LAW REQUIREMENTS	52		
ARTICLE 37. ARTICLE 38.	PAYROLL REPORTS	57		
ARTICLE 38. ARTICLE 39.	DUST HAZARDS	58		
MILLULE JY.	DUDI HALAKIDI	20		

TABLE OF CONTENTS

CHAPTER IX		
	D FINAL PAYMENTS	
ARTICLE 40.	CONTRACT PRICE	58
ARTICLE 41.	BID BREAKDOWN ON LUMP SUM	58
ARTICLE 42.	PARTIAL PAYMENTS	58
ARTICLE 43.	PROMPT PAYMENT	59
ARTICLE 44.	SUBSTANTIAL COMPLETION PAYMENT	59
ARTICLE 45.	FINAL PAYMENT	60
ARTICLE 46.	ACCEPTANCE OF FINAL PAYMENT	61
ARTICLE 47.	APPROVAL BY PUBLIC DESIGN COMMISSION	62
CHAPTER X		
	R'S DEFAULT	
ARTICLE 48.	COMMISSIONER'S RIGHT TO DECLARE CONTRACTOR	
	IN DEFAULT	62
ARTICLE 49.	EXERCISE OF THE RIGHT TO DECLARE DEFAULT	64
ARTICLE 50.	QUITTING THE SITE	64
ARTICLE 51.	COMPLETION OF THE WORK	64
ARTICLE 52.	PARTIAL DEFAULT	64
ARTICLE 53.	PERFORMANCE OF UNCOMPLETED WORK	65
ARTICLE 54.	OTHER REMEDIES	65
CHAPTER XI		
MISCELLANE	OUS PROVISIONS	
ARTICLE 55.	CONTRACTOR'S WARRANTIES	66
ARTICLE 56.	CLAIMS AND ACTIONS THEREON	66
ARTICLE 57.	INFRINGEMENT	66
ARTICLE 58.	NO CLAIM AGAINST OFFICERS, AGENTS OR	
4 TO THE CT . TO . TO	EMPLOYEES	67
ARTICLE 59.	SERVICE OF NOTICES	67
ARTICLE 60.	UNLAWFUL PROVISIONS DEEMED STRICKEN	
ADDICE TO CA	FROM CONTRACT	67
ARTICLE 61.	ALL LEGAL PROVISIONS DEEMED INCLUDED	67
ARTICLE 62.	TAX EXEMPTION NUMBER OF A TROPICS OF A VICE	67
ARTICLE 63.	INVESTIGATION(S) CLAUSE	69
ARTICLE 64.	TERMINATION BY THE CITY	71
ARTICLE 65.	CHOICE OF LAW, CONSENT TO JURISDICTION	
	AND VENUE	73

TABLE OF CONTENTS

CHAPTER XI (CONT'D) MISCELLANEOUS PROVISIONS

ARTICLE 66.	PARTICIPATION IN AN INTERNATIONAL BOYCOTT	74
ARTICLE 67.	LOCALLY BASED ENTERPRISE PROGRAM	74
ARTICLE 68.	ANTITRUST	75
ARTICLE 69.	MACBRIDE PRINCIPLES PROVISIONS	75
ARTICLE 70	ELECTRONIC FILING/NYC DEVELOPMENT HUB	77
ARTICLE 71.	PROHIBITION OF TROPICAL HARDWOODS	77
ARTICLE 72.	CONFLICTS OF INTEREST	78
ARTICLE 73.	MERGER CLAUSE	78
ARTICLE 74.	STATEMENT OF WORK	78
ARTICLE 75.	COMPENSATION TO BE PAID TO CONTRACTOR	78
ARTICLE 76:	ELECTRONIC FUNDS TRANSFER	78
ARTICLE 77:	RECORDS RETENTION	79
ARTICLE 78:	PARTICIPATION BY MINORITY-OWNED AND WOMEN-	OWNED
	BUSINESS ENTERPRISES IN CITY PROCUREMENT	79
SIGNATURES		87
ACKNOWLEDGMENT BY CORPORATION		
ACKNOWLEDO	GMENT BY PARTNERSHIP	88 88
ACKNOWLEDGMENT BY INDIVIDUAL		
ACKNOWLEDO	GMENT BY COMMISSIONER	89
AUTHORITY		90
COMPTROLLE	COMPTROLLER'S CERTIFICATE	
	MAYOR'S CERTIFICATE	
PERFORMANCE BOND #1		
PERFORMANC		96
PAYMENT BON	ND .	100

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.
- "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.
- 11.1.3Within 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:
 - 11.7.3.1Profit, or loss of anticipated or unanticipated profit;
 - 11.7.3.2Consequential 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 CITY OF NEW YORK

 17 STANDARD CONSTRUCTION CONTRACT

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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 reinspection 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. 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 requite 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.
 - 20.4.2In 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.
- 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 CITY OF NEW YORK STANDARD CONSTRUCTION CONTRACT 28

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.
 - 22.1.1Commercial 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.
 - 26.1.1For 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.
 - 26.1.2If 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
 - Reasonable rental value of Contractor-owned (or Subcontractor-owned, as 26.2.4 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) x (HP rating) x (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) x (HP rating) x (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 CITY OF NEW YORK

 39 STANDARD CONSTRUCTION CONTRACT

 DDC

 December 2013

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 CITY OF NEW YORK

 DDC

 42 STANDARD CONSTRUCTION CONTRACT

 December 2013

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 CITY OF NEW YORK

 44 STANDARD CONSTRUCTION CONTRACT

 DDC

 December 2013

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:

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- 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 CITY OF NEW YORK

 48 STANDARD CONSTRUCTION CONTRACT

December 2013

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

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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 Citv. 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.

December 2013

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 CITY OF NEW YORK STANDARD CONSTRUCTION CONTRACT 56 DDC

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 CITY OF NEW YORK STANDARD CONSTRUCTION CONTRACT 61 DDC December 2013

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 prepaid 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 CITY OF NEW YORK STANDARD CONSTRUCTION CONTRACT 67

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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 CITY OF NEW YORK

 75
 STANDARD CONSTRUCTION CONTRACT
 December 2013

- (\$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 asses, 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 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 THRU TIVE.

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:

Dollars, (\$ 35,292.77.-7), 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.

Nive Wolfe 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 CITY OF NEW YORK

 78 STANDARD CONSTRUCTION CONTRACT
 December 2013

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, 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.
- 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.
- 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, 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.

83

- 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: Commissioner

CONTRACTOR: DIFAZIO IND, LL

By: (Member of Firm or Officer of Corporation)

Title: Vire to (

(Where Contractor is a Corporation, add):

Attest:

Sacretor

(Seal)

FRANCES M. AATALE Notary Public, State of New York

No. 43-4748045

Qualified in Richmond County (1) 2017

ACKNOWLEDGEMENT OF PRINCIPAL, IF A CORPORATION NY DOK County of Ques day of Dec., 2010 before me personally came at sep to me known who, being by me duly sworn did depose and say that he resides at that he is the DINCLE 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 #01AY5014042 Qualified in Queens County Notary Public or Commissioner of Deeds Commission Expires July 15, 20 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 game day of Dec, 2016 before me personally came Fine Mactara and 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 15, 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
Thirty Five Million, Two-Hundered Ninety Two Thousand, Seven Hundrel Seventy Seven Thousand, 77/100
Ninety Two Thousand, Seven Hundre
Seventy Seven Thousand, 11100
Dollars (\$ 35,292,777.)77
is chargeable to the fund of the Department of Design and Construction entitled Code
Various

Department of Design and Construction
I hereby certify that the specifications contained herein comply with the terms and conditions of the BUDGET
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:
\$ <u></u>
Comptroller

PERFORMANCE BOND #2 (Page 1)

PERFORMANCE BOND #2

BOND #09235765

That we,	DiFazio Ind., LLC d/b/a DiFazio Industries
	38 Kinsey Place
	Staten Island, NY 10303
hereinafter	referred to as the "Principal,"
and,	Fidelity and Deposit Company of Maryland
	1400 American Lane, Tower I, 18th Floor
	Schaumburg, IL 60196-1056
YORK, her of Thirt	referred to as the "Surety" ("Sureties") are held and firmly bound to THE CITY OF NEW einafter referred to as the "City" or to its successors and assigns in the penal sum by Five Million Two Hundred Ninety Two Thousand Seven Hundred
Seven	ty Seven And 77/100
	·
which said	sum of money well and truly to be made, we, and each of us, bind ourselves, our heirs, administrators, successors and assigns, jointly and severally, firmly by these presents.
WHEREA	S, the Principal is about to enter, or has entered, into a Contract in writing with the City for
FMS ID:	SE-803 E-PIN: 85016B0108001 DDC PIN: 8502016SE0020C
	ction of Sànitary and Storm Sewers and Appurtenances in Ramble cc - Borough of Staten Island
a copy of full;	which Contract is annexed to and hereby made a part of this bond as though herein set forth it
representat	OW, THEREFORE, the conditions of this obligation are such that if the Principal, his or its rives or assigns, shall well and faithfully perform the said Contract and all modifications ats, additions and alterations thereto that may hereafter be made, according to its terms and it 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 (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 (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

30th	day of	November	20 16
(Seal)	DiFaz	io Ind., LI	Principal .
(Seal)	,	By: Fidelity A	Surety and Deposit Company of Maryland
(Seal)		By: Sandra	Diaz, Attorney-in-Fact Surety
(Seal)		By:	Surety
(Seal)		By:	Surety
(Seal)		By:	Surety
. *		By:	and the second s
Bond Premium Rate	Sliding Scale		ب
Bond Premium Cost	\$232,301.00		
If the Contractor (Princ partners.	ipal) is a partnership, the	e bond should be	e signed by each of the individuals who are
	cipal) is a corporation, the agent, or attorney-in-fac		e signed in its correct corporate name by a
There should be execut of counterparts of the C		er of counterpart	s of the bond corresponding to the number
			COMANDA DO CONGREDICADO CONTROLO

ACKNOWLEDGEMENT FOR PRINCIPAL

ACKNOWLEDGEMENT FOR PRINCIPAL, IF A LIMITED LIABILITY COMPANY

STATE OF N	EW	YORK,
COUNTY OF		

ON THE (DAY OF DECEMBER,	20 /6,	BEFORE	ME PERSO	NALLY	APPEARED
MARC DIPAZIO	TO ME	KNOWN AI	ND KNOWN	TO ME	TO BE THE
VICE-PRESIDENT	of _ Di	FAZIO	FNRUST	Pics	
A LIMITED LIABILITY COMPANY, DESCR					
INSTRUMENT AND ACKNOWLEDGED TO I	ME THAT	(S)HE EXEC	UTED THE S	SAME AS	AND FOR
THE ACT AND DEED OF SAID LIMITED LIAB	BILITY COM	IPANY.			

Notary Public

OESAR PROBUBITA

Notary Public, State of New York
No. 01P16131715

Qualified in Richmond County
Commission Expires Aug. 21, 20

PERFORMANCE BOND #2 (Page 4)

December 2013

ACKNOWLEDGMENT OF PRINCIPAL IF A CORPORATION

State of		County of	SS:
On this	day of	20	before me personally
came			
		rn did depose and say that he resides	
at		that ha/aha is the	
of the corporation	described in and which	h executed the foregoing instrument:	that he/she signed his/her name to the
foregoing instrum	ent by order of the direct	tors of said corporation as the duly aut	horized and hinding act thereof
TOTOGOTHE HISHUIN	one by order or the direct	tors or said corporation as the dary and	notized and binding act dicicol.
Notary Public or C	Commissioner of Deeds.	-	
	ACKNOWLEDO	GMENT OF PRINCIPAL IF A PA	RTNERSHIP
State of			
State of		County of	\$8:
On thic	day of	~ 20	hefore me nerconally
Came	day or		octore the personally
to me known who	heing by me duly swo	n did depose and say that he/she resid	es
at			
		; that he/she is	partner of
	, a lim	that he/she is; that he/she is; that he/she is;	the laws of the State of
	, the partne	ership described in and which executed	the foregoing instrument;
and that he/she sig	med his/her name to the	foregoing instrument as the duly author	orized and binding act of
said partnership.		4	
		₩	
Notary Public or C	Commissioner of Deeds		
	A CYPYOTETE TO	~	
	ACKNOWLEDO	GMENT OF PRINCIPAL IF AN I	NDIVIDUAL
State of		County of	an)
On this	day of	, 20	hefore me personally
came	· ·		colore me personally
to me known, who	being by me duly swor	rn did depose and say that he/she resid	es
at			
	- Control Cont	, and that he/she is the indi	vidual whose name is
subscribed to the v	within instrument and ac	knowledged to me that by his/her sign	ature on the
	dividual executed the in	2 ,	
·			
Notary Public or C	Commissioner of Deeds	. •	
			of the respective parties; (b) appropriate
			nd is executed by agent, officer or other
			esolutions of Surety under which Power
			as issued, and (d) certified copy of latest
puonsned imancial	statement of assets and li	<u>-</u>	
		* * * * * * *	
	Affix Ackn	owledgments and Justification of S	Sureties.
CITY OF NEW Y	ORK	STANDA	RD CONSTRUCTION CONTRACT

99

DDC

PAYMENT BOND (Page 1)

	PAYMENT BOND	Bond #09235765
KNOW ALL PERSONS BY T	THESE PRESENTS, That we,	
DiFazio Ind., LLC d	/b/a DiFazio Industries	
38 Kinsey Place		11-3 t-10-11-14-11-14-11-14-11-14-11-14-11-14-11-14-11-14-11-14-11-14-11-14-11-14-11-14-11-14-11-14-11-14-11-1
Staten Island, NY 1	.0303	the state of the s
hereinafter referred to as the "Principal"	", and	
Fidelity And Deposit	t Company of Maryland	
1400 American Lane,	Tower I, 18th Floor	
Schaumburg, IL 6019	06	The state of the s
hereinafter referred to as the "Surety" hereinafter referred to as the "City" or t	to its successors and assigns, in the	penal sum of
Thirty Five Million Two		•
Seventy-Seven And 77/100		
(\$\frac{35,292,777.77}{2}\$) Dollars, lawful mone and truly to be made, we, and each of assigns, jointly and severally, firmly by	f us, bind ourselves, our heirs, exe	
WHEREAS, the Principal is at	bout to enter, or has entered, into a	Contract in writing with the City for
FMS ID: SE-803 E-PIN: 85016B0	0108001 DDC PIN: 8502016SE	E0020C Construction of Sanitary
And Storm Sewers And Appurten	ances in Ramble Road, Etc - E	orough of Staten Island
	onditions of this obligation are s	uch that if the Principal, his or its
representatives or assigns and other Su successors and assigns shall promptly p	abcontractors to whom Work under bay or cause to be paid all lawful cla	this Contract is sublet and his or their ims for
the prosecution of the Work under said whether such persons be agents servan	d Contract, and any amendment or its or employees of the Principal or	es rendered by all persons engaged in extension thereof or addition thereto, any such Subcontractor, including all es at or in the vicinity of the site
CITY OF NEW YORK DDC	STAND 100	ARD CONSTRUCTION CONTRACT December 2013

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.

CITY OF NEW YORK

STANDARD CONSTRUCTION CONTRACT
December 2013

PAYMENT BOND (Page 3)

IN WITNESS WHEREOF, the Principal and the Surety (Sureties) have neceunito set	their na	mas
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 30th day of November . 20	16	*

DiFazio Ind., LLC d/b/a DiFazio Industries (L.S.)

Principal

(Seal)	Fidelity And Deposit Company of Marylan Surety By:	nd
(Seal)	Sandra Diaz, Attorney-in-Fact Surety	
(Seal)	By:Surety	•
(Seal)	By:Surety	
If the Contractor (Principal) is a p	By:	riduals who ar

of counterparts of the Contract.

duly authorized officer, agent, or attorney-in-fact.

(Seal)

If the Contractor (Principal) is a corporation, the bond should be signed in its correct corporate name by a

There should be executed an appropriate number of counterparts of the bond corresponding to the number

PAYMENT BOND (Page 4)

ACKNOWLEDGIVE	ENT OF FRINCIPAL, IF A CORPORATION
State of	County of ss;
On this day of	,, before me personally came
to me known, who, be	ing by me duly sworn did depose and say that he resides at
-	that he is the of bed 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 he knows the seal of said of the seals affixed to said instrument is such seal; that it was so affixed by order of or
	Notary Public or Commissioner of Deeds
ACKNOWLEDGMI	ENT OF PRINCIPAL, IF A PARTNERSHIP
State of	County of ss:
to me known, and kno	wn to me to be one of the members of the firm of
acknowledged to me t	hat he executed the same as and for the act and deed of said firm.
	Notary Public or Commissioner of Deeds
ACKNOWLEDGMI	ENT OF PRINCIPAL, IF AN INDIVIDUAL
State of	County of ss:

____, 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.

CITY OF NEW YORK DDC

STANDARD CONSTRUCTION CONTRACT December 2013

(NO TEXT ON THIS PAGE)

ZURICH AMERICAN INSURANCE COMPANY COLONIAL AMERICAN CASUALTY AND SURETY COMPANY FIDELITY AND DEPOSIT COMPANY OF MARYLAND POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That the ZURICH AMERICAN INSURANCE COMPANY, a corporation of the State of New York, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, a corporation of the State of Maryland, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND a corporation of the State of Maryland (herein collectively called the "Companies"), by MICHAEL BOND, Vice President, in pursuance of authority granted by Article V, Section 8, of the By-Laws of said Companies, which are set forth on the reverse side hereof and are hereby certified to be in full force and effect on the date hereof, do hereby nominate, constitute, and appoint Vivian CARTI, Debra A. DEMING, Cynthia FARRELL, Sandra DIAZ, Edward REILLY, Evangelina L. DOMINICK, Susan A. WELSH and Jennifer L. JAKAITIS, all of New York, New York, EACH its true and lawful agent and Attorney-in-Fact, to make, execute, seal and deliver, for, and on its behalf as surety, and as its act and deed: any and all bonds and undertakings, and the execution of such bonds or undertakings in pursuance of these presents, shall be as binding upon said Companies, as fully and amply, to all intents and purposes, as if they had been duly executed and acknowledged by the regularly elected officers of the ZURICH AMERICAN INSURANCE COMPANY at its office in New York, New York., the regularly elected officers of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at its office in Owings Mills, Maryland., and the regularly elected officers of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at its office in Owings Mills, Maryland., in their own proper persons.

The said Vice President does hereby certify that the extract set forth on the reverse side hereof is a true copy of Article V, Section 8, of the By-Laws of said Companies, and is now in force.

IN WITNESS WHEREOF, the said Vice-President has hereunto subscribed his/her names and affixed the Corporate Seals of the said ZURICH AMERICAN INSURANCE COMPANY, COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and FIDELITY AND DEPOSIT COMPANY OF MARYLAND, this 26th day of May, A.D. 2016.

ATTEST:

ZURICH AMERICAN INSURANCE COMPANY COLONIAL AMERICAN CASUALTY AND SURETY COMPANY FIDELITY AND DEPOSIT COMPANY OF MARYLAND





Vice President Michael Bond

Jui D. Bairf

Secretary Eric D. Barnes

State of Maryland

County of Baltimore

On this 26th day of May, A.D. 2016, before the subscriber, a Notary Public of the State of Maryland, duly commissioned and qualified, MICHAEL BOND, Vice President, and ERIC D. BARNES, Secretary, of the Companies, to me personally known to be the individuals and officers described in and who executed the preceding instrument, and acknowledged the execution of same, and being by me duly sworn, deposeth and saith, that he/she is the said officer of the Company aforesaid, and that the seals affixed to the preceding instrument are the Corporate Seals of said Companies, and that the said Corporate Seals and the signature as such officer were duly affixed and subscribed to the said instrument by the authority and direction of the said Corporations.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my Official Seal the day and year first above written.

Maria D. Adamski, Notary Public My Commission Expires: July 8, 2019

EXTRACT FROM BY-LAWS OF THE COMPANIES

"Article V, Section 8, <u>Attorneys-in-Fact</u>. The Chief Executive Officer, the President, or any Executive Vice President or Vice President may, by written instrument under the attested corporate seal, appoint attorneys-in-fact with authority to execute bonds, policies, recognizances, stipulations, undertakings, or other like instruments on behalf of the Company, and may authorize any officer or any such attorney-in-fact to affix the corporate seal thereto; and may with or without cause modify of revoke any such appointment or authority at any time."

CERTIFICATE

I, the undersigned, Vice President of the ZURICH AMERICAN INSURANCE COMPANY, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, do hereby certify that the foregoing Power of Attorney is still in full force and effect on the date of this certificate; and I do further certify that Article V, Section 8, of the By-Laws of the Companies is still in force.

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the ZURICH AMERICAN INSURANCE COMPANY at a meeting duly called and held on the 15th day of December 1998.

RESOLVED: "That the signature of the President or a Vice President and the attesting signature of a Secretary or an Assistant Secretary and the Seal of the Company may be affixed by facsimile on any Power of Attorney...Any such Power or any certificate thereof bearing such facsimile signature and seal shall be valid and binding on the Company."

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at a meeting duly called and held on the 5th day of May, 1994, and the following resolution of the Board of Directors of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at a meeting duly called and held on the 10th day of May, 1990.

RESOLVED: "That the facsimile or mechanically reproduced seal of the company and facsimile or mechanically reproduced signature of any Vice-President, Secretary, or Assistant Secretary of the Company, whether made heretofore or hereafter, wherever appearing upon a certified copy of any power of attorney issued by the Company, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the corporate seals of the said Companies, this _____ day of ____NOV_3_0_2016_, 20____.







Gerald F. Haley, Vice President

FIDELITY AND DEPOSIT COMPANY

OF MARYLAND 600 Red Brook Blvd., Suite 600, Owings Mills, MD 21117

Statement of Financial Condition

As Of December 31, 2015

ASSETS

11000110		
Bonds	\$	142,878,497
Stocks		22,315,096
Cash and Short Term Investments.	***************************************	337,835
Reinsurance Recoverable	***************************************	24,731,651
Other Accounts Receivable	***************************************	19,935,844
TOTAL ADMITTED ASSETS	\$	210,198,923
LIABILITIES, SURPLUS AND OTHER FUNDS Reserve for Taxes and Expenses Ceded Reinsurance Premiums Payable		46,436 40,456,309
Securities Lending Collateral Liability	********	0
TOTAL LIABILITIES		40,502,745
Capital Stock, Paid Up\$	5,000,000	
Surplus	164,696,178	
Surplus as regards Policyholders		
Surplus as regards Policyholders		169,696,178

Securities carried at \$57,996,983 in the above statement are deposited with various states as required by law.

Securities carried on the basis prescribed by the National Association of Insurance Commissioners. On the basis of market quotations for all bonds and stocks owned, the Company's total admitted assets at December 31, 2015 would be \$212,137,795 and surplus as regards policyholders \$171,635,049.

I, DENNIS F. KERRIGAN, Corporate Secretary of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, do hereby certify that the foregoing statement is a correct exhibit of the assets and liabilities of the said Company on the 31st day of December, 2015.

Corporate Secretary

State of Illinois
City of Schaumburg

SS:

DARRYL JOINER OFFICIAL SEAL Notary Public - State of Illinois My Commission Expires February 24, 2018

Subscribed and sworn to, before me, a Notary Public of the State of Illinois, in the City of Schaumburg, this 15th day of March, 2016.

Jacop

Notary Public

ACKNOWLEDGEMENT FOR PRINCIPAL

ACKNOWLEDGEMENT FOR PRINCIPAL, IF A LIMITED LIABILITY COMPANY

STATE OF NOW YORK,)
COUNTY OF RICHMOND,

ON THE 6 DAY OF DECEMBER,	<u> 2016</u> ,	BEFORE	ME PERS	ONALLY	APPEARED
MARC DIFAZIO	TO ME	KNOWN A	ND KNOWI	N TO ME	TO BE THE
VICE-PRESIDENT	$_$ OF $_$	18426	FNDO	SIRIES	
A LIMITED LIABILITY COMPANY, DESCR	RIBED IN	AND WHO	EXECUTE	D THE	FOREGOING
INSTRUMENT AND ACKNOWLEDGED TO	ME THAT ((S)HE EXEC	UTED THE	SAME A	S AND FOR
THE ACT AND DEED OF SAID LIMITED LIAI	BILITY COM	IPANY.			

Notary Public

Notory Public, State of New York No. 01216151716 Qualified in Richmond County Contains on Expired Aug. 21, 20

ACKNOWLEDGEMENT OF SURETY

State of New York

County of New York

On this 30th day of November in the year 2016 before me personally came to me known, who, being by me duly sworn, did depose and Sandra Diaz he/she resides in New York, NY that he/she is the Attorney-In-Fact for

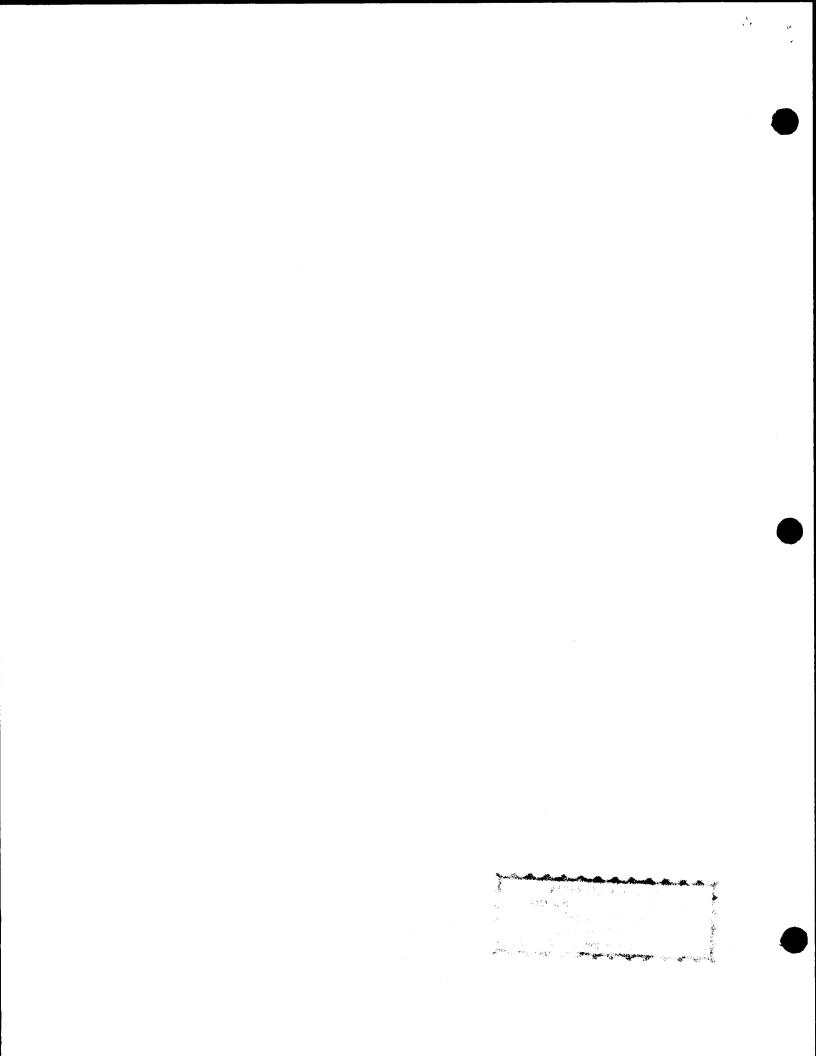
Fidelity and Deposit Company of Maryland

the corporation described in and which executed the attached instrument; and that he/she signed his/her name thereto by Order of the Board of Directors of the said Corporation.

Notary Public

AKLIMA B NOORHASSAN Notary Pubac - State of New York NO 01ND6284493

Quality A Queens County My Commission Expires Jun 17, 2017



CERTIFICATE OF SOLVENCY UNDER SECTION 1111 OF THE NEW YORK INSURANCE LAW

STATE OF NEW YORK DEPARTMENT OF FINANCIAL SERVICES

It is hereby certified that

Fidelity and Deposit Company of Maryland

Of Owings Mills, Maryland

a corporation organized under the laws of the State of Maryland and duly authorized to transact the business of insurance in this State, is qualified to become surety or guarantor on all bonds, undertakings, recognizances, guaranties and other obligations required or permitted by law; and that the said corporation is possessed of a capital and surplus including gross paid-in and contributed surplus and unassigned funds (surplus) aggregating the sum of \$170,392,009 (Capital \$5,000,000) as is shown by its sworn financial statement for the first quarter ending March 31, 2016 on file in this Department, prior to audit.

The said corporation cannot lawfully expose itself to loss on any one risk or hazard to an amount exceeding 10% of its surplus to policyholders, unless it shall be protected in excess of that amount in the manner provided in Section 4118 of the Insurance Law of this State.



In Witness Whereof, I have

unto set my hand and affixed

official seal of this Department in the City of Albany, this

18th day of May, 2016.

Maria T. Vullo Acting Superintendent

Jacqueline (atalfamo)

Jacqueline Catalfamo

Special Deputy Superintendent

STATE OF NEW YORK DEPARTMENT OF FINANCIAL SERVICES

Whereas it appears that

FIDELITY AND DEPOSIT COMPANY OF MARYLAND

Home Office Address Owings Mills, Maryland Organized under the Laws of Maryland has complied with the necessary requirements of or pursuant to law, it is hereby licensed to do within this State the business of fire, miscellaneous property, water damage, burglary and theft, glass, boiler and machinery, elevator, collision, personal injury liability, property damage liability, workers' compensation and employers' liability, fidelity and surety, credit, motor vehicle and aircraft physical damage and marine and inland marine (inland only) insurance, as specified in paragraph (s) 4, 5, 6, 7, 8, 9, 10, 12, 13, 14, 15, 16, 17, 19 and 20 of Section 1113(a) of the New York Insurance Law, and as authorized by Section 4102(c), reinsurance of every kind or description.

In Witness Whereof, I have hereunto set my hand and affixed the official seal of this Department at the City of Albany, State of New York, this 2nd day of July, 2013

Benjamin M. Lawsky Superintendent

Βv

Jacqueline Catalfamo Special Deputy Superintendent

State of New York Department of Financial Services

It is hereby certified that the above copy of Certificate of Authority has been compared with the original on file in this Department, and that it is a correct transcript therefrom, and of the whole of said original.

In Witness Whereof, I have hereunto set my hand, and affixed the official seal of this Department at the City of Albany, this 2nd day of July, 2013

Jacqueline Catalfamo

Special Deputy Superintendent





CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 11/22/2016

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		CONTACT Michael Rella			
Vanguard Coverage		PHONE (A/C, No, Ext): (516) 349-1333 FAX (A/C, No): (516)			
131 SUNNYSIDE BLVD		E-MAIL ADDRESS: certificates@vanguargcoverage.com			
SUITE 112		INSURER(S) AFFORDING COVERAGE	NAIC #		
PLAINVIEW NY	11803	INSURER A:Nat'l Union Fire Ins Co Pi	itts PA 19445		
INSURED		INSURER B Axis Ins Co	37273		
DIFAZIO IND. LLC		INSURER C: Commerce and Industry Ins. Co. 19410			
D/B/A/ DIFAZIO INDUSTRIES	•	INSURERD Markel American Ins Co.	28932		
38 Kinsey Place		INSURERE:Endurance American Ins Co	41718		
Staten Island NY	10303	INSURER F:			
001/504.050					

COVERAGES

CERTIFICATE NUMBER: 16-17 Regular Difazio

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.

	EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.									
INSF		TYPE OF INSURANCE	ADDL INSD	SUBR	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMIT	S	
ļ	X	COMMERCIAL GENERAL LIABILITY						EACH OCCURRENCE	\$ 1,0	000,000
A		CLAIMS-MADE X OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	ş 1	00,000
	x	Contractual Liability			GL1903237	2/21/2016	2/21/2017	MED EXP (Any one person)	\$	5,000
Ĭ	х	XCU Included						PERSONAL & ADV INJURY	\$ 1,0	000,000
	GEN	I'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	\$ 2,0	000,000
1		POLICY X PRO-						PRODUCTS - COMP/OP AGG	\$ 2,0	000,000
		OTHER:							\$	
İ	AUT	OMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	\$ 1,0	000,000
A	X	ANY AUTO						BODILY INJURY (Per person)	\$	
ĺ		ALL OWNED SCHEDULED AUTOS AUTOS			CA3632243	2/21/2016	2/21/2017	BODILY INJURY (Per accident)	\$	
	x	HIRED AUTOS X NON-OWNED AUTOS						PROPERTY DAMAGE (Per accident)	\$	
									\$	
	Ш	UMBRELLA LIAB X OCCUR						EACH OCCURRENCE	\$ 2,0	00,000
В	х	EXCESS LIAB CLAIMS-MADE						AGGREGATE	\$ 2,0	00,000
		DED RETENTION \$			MNU785895012016	2/21/2016	2/21/2017		\$	
		KERS COMPENSATION EMPLOYERS' LIABILITY Y/N						x PER OTH- STATUTE ER		
		PROPRIETOR/PARTNER/EXECUTIVE	N/A					E.L. EACH ACCIDENT	\$ 1,0	00,000
С	(Man	datory in NH)			WC019177479	2/21/2016	2/21/2017	E.L. DISEASE - EA EMPLOYEE	\$ 1,0	00,000
<u> </u>	DÉSC	, describe under CRIPTION OF OPERATIONS below						E.L. DISEASE - POLICY LIMIT	\$ 1,0	00,000
D	Exc	ess Liability			MKLM10LE106384	2/21/2016	2/21/2017	Occurrence/Aggregate		3M/3M
E	Exc	ess Liability		1	EXC10006507501	2/21/2016	2/21/2017	Occurrence/Aggregate		5M/5M

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
PROJECT: FMS ID: SE-803, E-PIN: 85016B0108001, DDC PIN: 8502016SE0020C, Construction of Sanitary and
Storm Sewers and Appurtenances in Ramble Road, ETC- Borough of Staten Island.
THE FOLLOWING ARE INCLUDED AS ADDITIONAL INSURED WHERE REQUIRED BY WRITTEN CONTRACT: CITY OF NEW YORK,
INCLUDING IT'S OFFICALS AND EMPLOYEES, NATIONAL GRID.

NYC DEPARTMENT OF DESIGN & CONSTRUCTION 30-30 THOMSON AVENUE	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

11101

AUTHORIZED REPRESENTATIVE

Joseph Sforzo/SALLY

CANCELLATION

CORPORATION All sinks

CERTIFICATE HOLDER

LONG ISLAND CITY, NY



CERTIFICATE OF NYS WORKERS' COMPENSATION INSURANCE COVERAGE

1					
1a. Legal Name & Address of Insured (use street address only)	1b. Business Telephone Number of Insured 718-720-6966				
Difazio IND. LLC					
D/B/A Difazio Industries	1c. NYS Unemployment Insurance Employer Registration Number of				
38 Kinsey Place	Insured				
Staten Island, NY 11803					
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 731706369				
Name and Address of Entity Requesting Proof of Coverage (Entity Being Listed as the Certificate Holder)	3a. Name of Insurance Carrier Commerce and Industry Insurance Co.				
NYC DEPARTMENT OF DESIGN & CONSTRUCTION 30-30 THOMSON AVENUE LONG ISLAND CITY, NY 11101	3b. Policy Number of Entity Listed in Box "1a" WC019177479				
	3c. Policy effective period				
	2/21/16 to 2/21/17				
	3d. The Proprietor, Partners or Executive Officers are				
	included. (Only check box if all partners/officers included)				
	all excluded or certain partners/officers excluded.				
this Certificate of Insurance to the entity listed above as the certificate Will the carrier notify the certificate holder within 10 days of a policy be cancelled for any other reason or if the insured is otherwise eliminated the policy effective period?	eing cancelled for non-payment of premium or within 30 days if				
This certificate is issued as a matter of information only and confers no extend or alter the coverage afforded by the policy listed, nor does it creferenced policy.					
This certificate may be used as evidence of a Workers' Compensation	contract of insurance only while the underlying policy is in effect.				
Please Note: Upon cancellation of the workers' compensation pol named on a permit, license or contract issued by a certificate hol new Certificate of Workers' Compensation Coverage or other aut mandatory coverage requirements of the New York State Workers	der, the business must provide that certificate holder with a horized proof that the business is complying with the				
Under penalty of perjury, I certify that I am an authorized representation and that the named insured has the coverage as depicted of					
Approved by: Robin Burger Print name of authorized presentative	re or licensed agent of insurance carrier)				
Approved by: July July (Signature) (Date)					
Title: Insurance Operations Manager					
Telephone Number of authorized representative or licensed agent of in	240 1222				
Telecologie Norther of autobized febresentative of licensed adent of li	usurance Camer: 310-347-1333				

Please Note: Only insurance carriers and their licensed agents are authorized to issue Form C-105.2. Insurance brokers are NOT authorized to issue it.

Workers' Compensation Law

Section 57. Restriction on issue of permits and the entering into contracts unless compensation is secured.

- 1. 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 a hazardous employment defined by this chapter, and notwithstanding 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 compensation for all employees has been secured as provided by this chapter. 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 compensation to any such employee if so employed.
- 2. 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 a hazardous employment defined by this chapter, 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 compensation for all employees has been secured as provided by this chapter.



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)	1b. Business Telephone Number of Insured			
DIFAZIO INDUSTRIES INC. DBA: DIFAZIO INDUSTRIES 38 KINSEY PLACE STATEN ISLAND, NY 10303	718-720-6966 1c. NYS Unemployment Insurance Employer Registration Number of Insured			
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 73-1706369			
Name and Address of Entity Requesting Proof of Coverage (Entity Being Listed as the Certificate Holder)	3a. Name of Insurance Carrier WESCO INSURANCE COMPANY			
NYC DEPARTMENT OF DESIGN & CONSTRUCTION 30-30 THOMSON AVENUE LONG ISLAND CITY, NY 11101	3b. Policy Number of Entity Listed in Box "1a" WDL0208647			
	3c. Policy effective period 01/01/2016 to 12/31/2017			
4. Policy covers:				
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 11/22/16 By Signature of insurance c	carrier's authorized representative or NYS Licensed Insurance Agent of that insurance carrier)			
Telephone Number 800-535-2711 Title VICE PRESIDEN				
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' Compensat	tion 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)			
1				

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 contificate is issued as a matter of information only and confers no cights upon the certificate holder. This certificate does not amend.

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 <u>CERTIFICATION BY INSURANCE BROKER OR AGENT</u>

The undersigned insurance broker or agent represents to the City of New York that the attached Certificate of Insurance is accurate in all material respects.

	Vanguard Coverage
	[Name of broker or agent (typewritten)]
	101 Sunnyside Blvd Suite 100, Plainview, NY 11803
	[Address of broker or agent (typewritten)]
	Rburger@vanguardcoverage.com
	[Email address of broker or agent (typewritten)]
	516-349-1333
	[Phone number/Fax number of broker or agent (typewritten)]
	Pylin Burger
	[Signature of authorized official, broker, or agent]
	Robin Burger, Insurance Operations Manager
	[Name and title of authorized official, broker, or agent (typewritten)]
State of)	
State of) County of	
Sworn to before me this 22nd day of No	evember 20 16

FOR THE STATE OF

NOTARY

LYNN ANN INFANTI
Notary Public, State of New York
No. 01IN6004351
Qualified in Suffolk County
Commission Expires March 23,

POLICY NUMBER: GL 190-32-37

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED - OWNERS, LESSEES OR CONTRACTORS - AUTOMATIC STATUS WHEN REQUIRED IN CONSTRUCTION AGREEMENT WITH YOU

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

- A. Section II Who Is An Insured is amended to include as an additional insured any person or organization for whom you are performing operations when you and such person or organization have agreed in writing in a contract or agreement that such person or organization be added as an additional insured on your policy. Such person or organization is an additional insured only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by:
 - 1. Your acts or omissions; or
 - The acts or omissions of those acting on your behalf;

in the performance of your ongoing operations for the additional insured.

However, the insurance afforded to such additional insured:

- Only applies to the extent permitted by law; and
- 2. Will not be broader than that which you are required by the contract or agreement to provide for such additional insured.

A person's or organization's status as an additional insured under this endorsement ends when your operations for that additional insured are completed.

B. With respect to the insurance afforded to these additional insureds, the following additional exclusions apply:

This insurance does not apply to:

 "Bodily injury", "property damage" or "personal and advertising injury" arising out of the rendering of, or the failure to render, any professional architectural, engineering or surveying services, including:

- a. The preparing, approving, or failing to prepare or approve, maps, shop drawings, opinions, reports, surveys, field orders, change orders or drawings and specifications; or
- b. Supervisory, inspection, architectural or engineering activities.

This exclusion applies even if the claims against any insured allege negligence or other wrongdoing in the supervision, hiring, employment, training or monitoring of others by that insured, if the "occurrence" which caused the "bodily injury" or "property damage", or the offense which caused the "personal and advertising injury", involved the rendering of or the failure to render any professional architectural, engineering or surveying services.

- 2. "Bodily injury" or "property damage" occurring after:
 - a. All work, including materials, parts or equipment furnished in connection with such work, on the project (other than service, maintenance or repairs) to be performed by or on behalf of the additional insured(s) at the location of the covered operations has been completed;
 - b. That portion of "your work" out of which the injury or damage arises has been put to its intended use by any person or organization other than another contractor or subcontractor engaged in performing operations for a principal as a part of the same project.
- C. With respect to the insurance afforded to these additional insureds, the following is added to Section III - Limits Of Insurance:

The most we will pay on behalf of the additional insured is the amount of insurance:

- Required by the contract or agreement you have entered into with the additional insured; or
- 2. Available under the applicable Limits of

Insurance shown in the Declarations; whichever is less.

This endorsement shall not increase the applicable Limits of Insurance shown in the Declarations.

POLICY NUMBER: GL 190-32-37

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED - OWNERS, LESSEES OR CONTRACTORS - COMPLETED OPERATIONS

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART

SCHEDULE

Name Of Additional Insured Person(s) Or Organization(s)	Location And Description Of Completed Operations
ANY PERSON OR ORGANIZATION WHOM YOU BECOME OBLIGATED TO INCLUDE AS AN ADDITIONAL INSURED AS A RESULT OF ANY CONTRACT OR AGREEMENT YOU HAVE ENTERED INTO.	PER THE CONTRACT OR AGREEMENT
Information required to complete this Schedule, if	not shown above, will be shown in the Declarations.

A. Section II - Who Is An Insured is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury" or "property damage" caused, in whole or in part, by "your work" at the location designated and described in the Schedule of this endorsement performed for that additional insured and included in the "products-completed operations hazard".

However:

- The insurance afforded to such additional insured only applies to the extent permitted by law; and
- If coverage provided to the additional insured is required by a contract or agreement, the insurance afforded to such additional insured will not be broader than that

- which you are required by the contract or agreement to provide for such additional insured.
- B. With respect to the insurance afforded to these additional insureds, the following is added to Section III - Limits Of Insurance:

If coverage provided to the additional insured is required by a contract or agreement, the most we will pay on behalf of the additional insured is the amount of insurance:

- 1. Required by the contract or agreement; or
- 2. Available under the applicable Limits of Insurance shown in the Declarations;

whichever is less.

This endorsement shall not increase the applicable Limits of Insurance shown in the Declarations.

ENDORSEMENT

This endorsement, effective 12:01 A.M. 02/21/2016

forms a part of

policy No. GL

190-32-37

issued to DIFAZIO IND., LLC D/B/A DIFAZIO INDUSTRIES

by NATIONAL UNION FIRE INSURANCE COMPANY OF PITTSBURGH, PA

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY ADDITIONAL INSURED - PRIMARY INSURANCE

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE FORM

Section IV, Commercial General Liability Conditions, paragraph 4., Other Insurance, subparagraph a. Primary Insurance, is amended by the addition of the following:

However, coverage under this policy afforded to an additional insured will apply as primary insurance where required by contract, and any other insurance issued to such additional insured shall apply as excess and noncontributory insurance.

Authorized Representative or Countersignature (in States Where Applicable)

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.

CODE	CLASSIFICATION
15 42 001 15 42 002	Rigger Sign Erector
16 11 001 16 11 002 16 11 003	Gardener Tree Pruner Tree Remover
16 11 011 16 11 012 16 11 013 16 11 014 16 11 015 16 11 016 16 11 017	Asphalt Raker (Highway & Paving) Tamper (Highway & Paving) Curbsetter (Highway & Paving) Formsetter (Highway & Paving) Rammerman (Highway & Paving) Laborer (Highway & Paving) ALL OTHER TITLES (Highway & Paving)
16 23 001 16 23 002 16 23 003 16 23 004 16 23 005 16 23 006 16 23 007	Laborer Operating Engineer (Heavy Construction-Maintenance) Junior Operating Engineer Junior Operating Engineer Junior Operating Engineer Fireman (Heavy Construction) Oiler (Heavy Construction)
16 23 051 16 23 052 16 23 053 16 23 057 16 23 058 16 23 059	Surveyor-Heavy Construction Surveyor-Heavy Construction-Instrument Man Surveyor-Heavy Construction-Rodman Surveyor-Land Surveying-Party Chief Surveyor-Land Surveying-Instrument Man Surveyor-Land Surveying-Rodman

COL	<u>DE</u>	CLASSIFICATION
	23 061 23 062 23 063	Operating Engineer-Road & Heavy Construction Operating Engineer-Paving Operating Engineer-Concrete
	23 072 23 073	Teamster-Heavy Equipment Trailer Driver Teamster-Dump Truck Driver Teamster-Flat Bed Trailer Driver (3-Axle) 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 17 17	41 001 41 002 41 004	Bricklayer Mason Tender Cement Mason
17	42 002	Metallic Lather
17 17	51 001 51 002	Carpenter Dock Builder
17	71 001	Cement & Concrete Worker
17	91 001	Structural Iron Worker
17	95 001	Barman
17	96 021	Derrickmen & Riggers
17 17 17	99 001 99 002 99 005	Ornamental Iron Worker Sandblaster 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.

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.

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 1 of 86

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 <u>EACH HOUR WORKED</u> unless otherwise noted.

Wasyl Kinach, P.E.
Director of Classifications
Bureau of Labor Law

TABLE OF CONTENTS

CLASSIFICATION	<u>PAGE</u>
ASBESTOS HANDLER	
BLASTER	
BOILERMAKER	7
BRICKLAYER	8
CARPENTER - BUILDING COMMERCIAL	9
CARPENTER - HEAVY CONSTRUCTION WORK	10
CARPENTER - SIDEWALK SHED, SCAFFOLD AND HOIST	11
CEMENT & CONCRETE WORKER	12
CEMENT MASON	13
CORE DRILLER	
DERRICKPERSON AND RIGGER	15
DIVER	15
DOCKBUILDER - PILE DRIVER	16
DRIVER: TRUCK (TEAMSTER)	17
ELECTRICIAN	
ELECTRICIAN - ALARM TECHNICIAN	22
ELECTRICIAN-STREET LIGHTING WORKER	
ELEVATOR CONSTRUCTOR	
ELEVATOR REPAIR & MAINTENANCE	25
ENGINEER	
ENGINEER - CITY SURVEYOR AND CONSULTANT	31
ENGINEER - FIELD (BUILDING CONSTRUCTION)	32
ENGINEER - FIELD (HEAVY CONSTRUCTION)	33
ENGINEER - FIELD (STEEL ERECTION)	
ENGINEER - OPERATING	35
FLOOR COVERER	43
GLAZIER	44
GLAZIER - REPAIR & MAINTENANCE	45
HEAT AND FROST INSULATOR	46
HOUSE WRECKER	47
IRON WORKER - ORNAMENTAL	47
IRON WORKER - STRUCTURAL	48
LABORER	49
ANDSCAPING	50

MARBLE MECHANIC	
MASON TENDER	
MASON TENDER (INTERIOR DEMOLITION WORKER)	54
METALLIC LATHER	
MILLWRIGHT	56
MOSAIC MECHANIC	57
PAINTER	58
PAINTER - SIGN	58
PAINTER - STRIPER	59
PAINTER - STRUCTURAL STEEL	60
PAPERHANGER	61
PAVER AND ROADBUILDER	62
PLASTERER	
PLASTERER - TENDER	65
PLUMBER	
PLUMBER (MECHNICAL EQUIPMENT AND SERVICE)	
PLUMBER (RESIDENTIAL RATES FOR 1, 2 AND 3 FAMILY HOME CONSTRUCTION)	67
PLUMBER: PUMP & TANK	
POINTER - WATERPROOFER, CAULKER MECHANIC (EXTERIOR BUILDING RENOVATION)	69
ROOFER	70
SANDBLASTER - STEAMBLASTER	
SHEET METAL WORKER	
SHEET METAL WORKER - SPECIALTY	
SHIPYARD WORKER	
SIGN ERECTOR	75
STEAMFITTER	
STEAMFITTER - REFRIGERATION AND AIR CONDITIONER	
STONE MASON - SETTER	
TAPER	
TELECOMMUNICATION WORKER	
TILE FINISHER	
TILE LAYER - SETTER	83
TIMBERPERSON	
TUNNEL WORKER	84
\cdot	0.6

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

Paid Holidays

None

Easter

(Local #78 and Local #12A)

BLASTER

<u>Blaster</u>

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

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 5 of 86

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

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 6 of 86

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 (7½) 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

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 7 of 86

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

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 8 of 86

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

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 9 of 86

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

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 10 of 86



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

Dvertime

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 cond shift.

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 11 of 86

(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)

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

Paid Holidays

Christmas Day

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

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 13 of 86

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 (7½) hours paid for eight (8) hours of labor and be permitted one-half (½) hour for mealtime.

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 14 of 86

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 Dav 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

Vage Rate per Hour: \$63.82

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 15 of 86

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.

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 16 of 86

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

/age Rate per Hour: \$40.06

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 17 of 86

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

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 18 of 86

Overtime Description

For Paid Holidays: Employees working two (2) days in the calendar week in which the holiday falls are to 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

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 19 of 86

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.

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 20 of 86

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

st and Second Year "M" Wage Rate Per Hour: \$34.50

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 21 of 86

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

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 22 of 86

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

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

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 23 of 86

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

Paid Holidays

Christmas Day

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

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 24 of 86

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

Pvertime Description

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 25 of 86

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

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 26 of 86

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

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 27 of 86

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

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 28 of 86

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 eteran's Day

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 29 of 86

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

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 30 of 86

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

Dff 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).

<u>Rodperson</u>

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 31 of 86

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

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 32 of 86

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).

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 33 of 86

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

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 34 of 86

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

Vage Rate per Hour: \$74.29

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 35 of 86

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.

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 36 of 86

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

II Drills and Machines of a similar nature.

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 37 of 86

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

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 38 of 86

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

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 39 of 86

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

<u> Operating Engineer - Concrete II</u>

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

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 40 of 86

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

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 41 of 86

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

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 42 of 86

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

hristmas Day

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 43 of 86

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

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 44 of 86

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

<u> Iron Worker - Ornamental</u>

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.

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 48 of 86

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)

<u>Laborer</u>

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

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 49 of 86

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 $\frac{1}{2}$), 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

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 50 of 86

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

<u>Groundperson</u>

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 Danksgiving Day

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 51 of 86

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

<u>Marble Polisher</u>

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.

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 52 of 86

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

hristmas Day

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

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, cluding one half (½) hour for lunch. Off-Hour Start shall commence after 3:30 P.M. and shall conclude by 6:00

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 55 of 86

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.

Development the regular rate for Sunday

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 Dav

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

ocal #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

Labor Day

Columbus Day

Thanksgiving Day

Christmas Day

Paid Holidays

None

(District Council of Painters #9)

PAINTER - SIGN

Designer

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate per Hour: \$40.30

Supplemental Benefit Rate per Hour: \$7.22

Journeyperson

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

(wo (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

Lineperson (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

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 59 of 86

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

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

ime and one half the regular rate after a 7 hour day.

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016

Page 61 of 86

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

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 62 of 86

(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 $\frac{1}{2}$) 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

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 63 of 86

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.

Time and one nair the regular rate for Saturda

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 ($\frac{1}{2}$) hour to eat with this time being included in the seven (7) hours of work.

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 64 of 86

(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

<u>Plumber</u>

Effective Period: 7/1/2015 - 6/30/2016

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 65 of 86

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 (MECHNICAL 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

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 67 of 86

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

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

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.

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 69 of 86

(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

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 70 of 86

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.

<u> Sheet Metal Worker - Fan Maintenance</u>

(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

age Rate per Hour: \$37.57

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 71 of 86

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

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 72 of 86

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

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 73 of 86

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

teamfitter -Temporary Services

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 75 of 86

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

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 76 of 86

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

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 77 of 86

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

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 78 of 86

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
hdependence Day

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 79 of 86

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.

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 80 of 86

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

Paid Holidays

Christmas Day

New Year's Day
Lincoln's Birthday
Washington's Birthday
Memorial Day
Independence Day
Labor Day
Columbus Day
Election Day
eteran's Day

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

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 $(1\frac{1}{4})$ 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 (1½) times the regular straight time rate of pay for the seven hours of actual off-shift work.

(Local	#7)
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TIMBERPERSON

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

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

<u>Outside Lock Tender, Outside Gauge Tender, Muck Lock Tender (Compressed Air Rates)</u>

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

<u> Microtunneling (Free Air Rates)</u>

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 85 of 86

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.

TABLE OF CONTENTS

CLASSIFICATION	PAGE
ASBESTOS HANDLER	3
BOILERMAKER	3
BRICKLAYER	4
CARPENTER	5
CEMENT MASON	. <i></i> 6
CEMENT AND CONCRETE WORKER	6
DERRICKPERSON & RIGGER (STONE)	
DOCKBUILDER/PILE DRIVER	
ELECTRICIAN	8
ELEVATOR CONSTRUCTOR	10
ELEVATOR REPAIR & MAINTENANCE	11
ENGINEER	12
ENGINEER - OPERATING	13
FLOOR COVERER	14
GLAZIER	14
HEAT & FROST INSULATOR	15
HOUSE WRECKER	16
IRON WORKER - ORNAMENTAL	16
IRON WORKER - STRUCTURAL	17
LABORER (FOUNDATION, CONCRETE, EXCAVATING, STREET PIPE LAYER & COMMON)	18
MARBLE MECHANICS	19
MASON TENDER	20
METALLIC LATHER	21
MILLWRIGHT	22
PAVER AND ROADBUILDER	
PAINTER	23
PAINTER - STRUCTURAL STEEL	
PLASTERER	
PLUMBER	25
POINTER - WATERPROOFER, CAULKER MECHANIC (EXTERIOR BUILDING RENOVATION)	26
ROOFER	
SHEET METAL WORKER	28
SIGN ERECTOR	29
STEAMFITTER	30
STONE MASON - SETTER	31
TAPER	
TILE LAYER - SETTER	32
TIMBERPERSON	33

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

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(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

Vage Rate Per Hour: 70% of Journeyperson's rate

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 3 of 34

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)

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 4 of 34

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate Per Hour: 60% of Journeyperson'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 Journeyperson'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 Journeyperson'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 Journeyperson'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 Journeyperson's rate Supplemental Benefit Rate Per Hour: \$17.10

(Bricklayer District Council)

CARPENTER

(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 4)

Carpenter (First Year)

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate Per Hour: 40% of Journeyperson'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 Journeyperson's rate Supplemental Benefit Rate Per Hour: \$31.14

Carpenter (Third Year)

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate Per Hour: 65% of Journeyperson'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 Journeyperson's rate Supplemental Benefit Rate Per Hour: \$31.14

(Carpenters District Council)

CEMENT MASON

(Ratio of Apprentice to Journeyperson: 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 Journeyperson's Rate

Cement Mason (Second Year)

Effective Period: 7/1/2015 - 6/30/2016

Wage and Supplemental Rate Per Hour: 60% of Journeyperson's Rate

Cement Mason (Third Year)

Effective Period: 7/1/2015 - 6/30/2016

Wage and Supplemental Rate Per Hour: 70% of Journeyperson's Rate

(Local #780)

CEMENT AND CONCRETE WORKER

(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 3)

Cement & Concrete Worker (First 1333 hours)

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 6 of 34

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate Per Hour: 50% of Journeyperson'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 Journeyperson'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 Journeyperson's rate Supplemental Benefit Rate Per Hour: \$25.47

(Cement Concrete Workers District Council)

DERRICKPERSON & RIGGER (STONE)

(Ratio of Apprentice to Journeyperson: 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 Journeyperson's rate

Supplemental Benefit Rate Per Hour: 50% of Journeyperson's rate

Derrickperson & Rigger (stone) - Second Year: 1st Six Months

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate Per Hour: 70% of Journeyperson's rate

Supplemental Benefit Rate Per Hour: 75% of Journeyperson's rate

Derrickperson & Rigger (stone) - Second Year: 2nd Six Months

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate Per Hour: 80% of Journeyperson's rate

Supplemental Benefit Rate Per Hour: 75% of Journeyperson's rate

Derrickperson & Rigger (stone) - Third Year

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate Per Hour: 90% of Journeyperson's rate

upplemental Benefit Rate Per Hour: 75% of Journeyperson's rate

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 7 of 34

(Local #197)

DOCKBUILDER/PILE DRIVER

(Ratio of Apprentice to Journeyperson: 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 Journeyperson'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 Journeyperson's rate Supplemental Benefit Rate Per Hour: \$31.52

<u>Dockbuilder/Pile Driver (Third Year)</u>

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate Per Hour: 65% of Journeyperson'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 Journeyperson's rate Supplemental Benefit Rate Per Hour: \$31.52

(Carpenters District Council)

ELECTRICIAN

(Ratio of Apprentice to Journeyperson: 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

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 8 of 34

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

Vage Rate per Hour: \$21.00

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 9 of 34

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 Journeyperson: 1 to 1, 1 to 2)

<u> Elevator (Constructor) - First Year</u>

Effective Period: 7/1/2015 - 3/16/2016

Wage Rate Per Hour: 50% of Journeyperson's rate

Supplemental Rate Per Hour: \$26.94

Effective Period: 3/17/2016 - 6/30/2016

Wage Rate Per Hour: 50% of Journeyperson's rate

Supplemental Rate Per Hour: \$28.41

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 10 of 34

Elevator (Constructor) - Second Year

Effective Period: 7/1/2015 - 3/16/2016

Wage Rate Per Hour: 55% of Journeyperson's rate

Supplemental Rate Per Hour: \$27.35

Effective Period: 3/17/2016 - 6/30/2016

Wage Rate Per Hour: 55% of Journeyperson'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 Journeyperson's rate

Supplemental Rate Per Hour: \$28.17

Effective Period: 3/17/2016 - 6/30/2016

Wage Rate Per Hour: 65% of Journeyperson'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 Journeyperson's rate

Supplemental Rate Per Hour: \$29.00

Effective Period: 3/17/2016 - 6/30/2016

Wage Rate Per Hour: 75% of Journeyperson's rate

Supplemental Rate Per Hour: \$30.54

(Local #1)

ELEVATOR REPAIR & MAINTENANCE

(Ratio of Apprentice to Journeyperson: 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 Journeyperson's rate

Supplemental Benefit Per Hour: \$26.87

Effective Period: 3/17/2016 - 6/30/2016

Wage Rate Per Hour: 50% of Journeyperson's rate

Supplemental Benefit Per Hour: \$28.34

levator Service/Modernization Mechanic (Second Year)

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 11 of 34

Effective Period: 7/1/2015 - 3/16/2016

Wage Rate Per Hour: 55% of Journeyperson's rate

Supplemental Benefit Per Hour: \$27.27

Effective Period: 3/17/2016 - 6/30/2016

Wage Rate Per Hour: 55% of Journeyperson'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 Journeyperson's rate

Supplemental Benefit Per Hour: \$28.08

Effective Period: 3/17/2016 - 6/30/2016

Wage Rate Per Hour: 65% of Journeyperson'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 Journeyperson's rate

Supplemental Benefit Per Hour: \$28.89

Effective Period: 3/17/2016 - 6/30/2016

Wage Rate Per Hour: 75% of Journeyperson's rate

Supplemental Benefit Per Hour: \$30.43

(Local #1)

ENGINEER

(Ratio of Apprentice to Journeyperson: 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

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 12 of 34

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 Journeyperson: 1 to 1, 1 to 5)

Operating Engineer - First Year

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate Per Hour 40% of Journeyperson'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 Journeyperson'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 Journeyperson's Rate

Supplemental Benefit Per Hour: \$20.15

(Local #14)

FLOOR COVERER

(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 4)

Floor Coverer (First Year)

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate Per Hour: 40% of Journeyperson'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 Journeyperson'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 Journeyperson'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 Journeyperson's rate

Supplemental Rate Per Hour: \$31.14

(Carpenters District Council)

GLAZIER

(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 3)

Glazier (First Year)

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate Per Hour: 40% of Journeyperson'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 Journeyperson's rate

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 14 of 34

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)

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 15 of 34

HOUSE WRECKER (TOTAL DEMOLITION)

(Ratio of Apprentice to Journeyperson: 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 Journeyperson: 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 Journeyperson's rate

Supplemental Rate Per Hour: \$36.50

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 16 of 34

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

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 17 of 34

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 Journeyperson: 1 to 1, 1 to 3)

<u>Laborer (Foundation, Concrete, Excavating, Street Pipe Layer & Common) - First</u> 1000 hours

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate Per Hour: 50% of Journeyperson's rate

Supplemental Rate Per Hour: \$36.53

<u>Laborer (Foundation, Concrete, Excavating, Street Pipe Layer & Common) - Second 1000 hours</u>

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate Per Hour: 60% of Journeyperson's rate

Supplemental Rate Per Hour: \$36.53

<u>Laborer (Foundation, Concrete, Excavating, Street Pipe Layer & Common) - Third 1000 hours</u>

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate Per Hour: 75% of Journeyperson's rate

Supplemental Rate Per Hour: \$36.53

<u>Laborer (Foundation, Concrete, Excavating, Street Pipe Layer & Common) - Fourth 1000 hours</u>

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate Per Hour: 90% of Journeyperson's rate

Supplemental Rate Per Hour: \$36.53

(Local #731)

MARBLE MECHANICS

(Ratio of Apprentice to Journeyperson: 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 Journeyperson'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 Journeyperson's rate

Cutters & Setters - Third 750 Hours

Effective Period: 7/1/2015 - 6/30/2016

Wage and Supplemental Rate Per Hour: 65% of Journeyperson's rate

<u>Cutters & Setters - Fourth 750 Hours</u>

Effective Period: 7/1/2015 - 6/30/2016

Wage and Supplemental Rate Per Hour: 75% of Journeyperson's rate

Cutters & Setters - Fifth 750 Hours

Effective Period: 7/1/2015 - 6/30/2016

Wage and Supplemental Rate Per Hour: 85% of Journeyperson's rate

Cutters & Setters - Sixth 750 Hours

Effective Period: 7/1/2015 - 6/30/2016

Wage and Supplemental Rate Per Hour: 95% of Journeyperson's rate

Polishers & Finishers - First 750 Hours

Effective Period: 7/1/2015 - 6/30/2016

Wage and Supplemental Rate Per Hour: 50% of Journeyperson'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 Journeyperson's rate

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

<u> Mason Tender - Fourth Year</u>

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)

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 22 of 34

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

<u> Painter - Brush & Roller - Second Year</u>

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

age Rate per Hour: \$31.60

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 23 of 34

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 Journeyperson: 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 Journeyperson's rate

Painters - Structural Steel (Second Year)

Effective Period: 7/1/2015 - 6/30/2016

Wage and Supplemental Rate Per Hour: 60% of Journeyperson's rate

Painters - Structural Steel (Third Year)

Effective Period: 7/1/2015 - 6/30/2016

Wage and Supplemental Rate Per Hour: 80% of Journeyperson's rate

(Local #806)

PLASTERER

(Ratio of Apprentice to Journeyperson: 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 Journeyperson's rate

Supplemental Rate Per Hour: \$15.76

Plasterer - First Year: 2nd Six Months

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 24 of 34

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

<u>Plasterer - Second Year: 2nd Six Months</u>

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

Vage Rate per Hour: \$14.00

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 25 of 34

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 Journeyperson: 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

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 26 of 34

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 Journeyperson: 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 Journeyperson's Rate

Roofer - Second Year

Effective Period: 7/1/2015 - 6/30/2016

Wage and Supplemental Rate Per Hour: 50% of Journeyperson's Rate

Roofer - Third Year

Effective Period: 7/1/2015 - 6/30/2016

Wage and Supplemental Rate Per Hour: 60% of Journeyperson's Rate

Roofer - Fourth Year

ffective Period: 7/1/2015 - 6/30/2016

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 27 of 34

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)

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 28 of 34

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate Per Hour: 75% of Journeyperson'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 Journeyperson's rate

Supplemental Rate Per Hour: \$37.15

(Local #28)

SIGN ERECTOR

(Ratio of Apprentice to Journeyperson: 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 Journeyperson'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 Journeyperson'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 Journeyperson'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 Journeyperson'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 Journeyperson's rate

Supplemental Rate Per Hour: \$24.94

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 29 of 34

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)

<u> Steamfitter - First Year</u>

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.

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 30 of 34

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

<u> Stone Mason - Setters - Fifth 750 Hours</u>

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 31 of 34

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

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 32 of 34

Wage and Supplemental Rate Per Hour: 50% of Journeyperson's rate

<u>Tile Layer - Setter - Second 750 Hours</u>

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)

<u> Timberperson - First Year</u>

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate Per Hour: 40% of Journeyperson's rate

Supplemental Rate Per Hour: \$31.54

<u>Timberperson - Second Year</u>

Effective Period: 7/1/2015 - 6/30/2016

Wage Rate Per Hour: 50% of Journeyperson's rate

Supplemental Rate Per Hour: \$31.54

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 33 of 34

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

<u>Timberperson - Fourth Year</u>

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)

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 34 of 34

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.

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 1 of 8

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 <u>not</u> 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 that the rates specified in this schedule for the applicable trade or occupation.

Benefits are paid for <u>EACH HOUR WORKED</u> unless otherwise noted.

Wasyl Kinach, P.E.
Director of Classifications
Bureau of Labor Law

TABLE OF CONTENTS

CLASSIFICATION	<u>PAGE</u>
BUILDING CLEANER AND MAINTAINER (OFFICE)	4
BUILDING CLEANER AND MAINTAINER (RESIDENTIAL)	4
CLEANER (PARKING GARAGE)	4
DAY CARE SERVICES	4
OOD SERVICE EMPLOYEES	4
SARDENER	5
IEAD START SERVICES	5
IOMECARE SERVICES	6
ECURITY GUARD (ARMED)	6
ECURITY GUARD (UNARMED)	6
ERVICES TO PERSONS WITH CEREBRAL PALSY	7
EMPORARY OFFICE SERVICES	7
VINDOW CLEANER	8
	BUILDING CLEANER AND MAINTAINER (OFFICE) BUILDING CLEANER AND MAINTAINER (RESIDENTIAL) BLEANER (PARKING GARAGE) BAY CARE SERVICES BOOD SERVICE EMPLOYEES BARDENER BEAD START SERVICES BOMECARE SERVICES BECURITY GUARD (ARMED) BECURITY GUARD (UNARMED) BERVICES TO PERSONS WITH CEREBRAL PALSY BEMPORARY OFFICE SERVICES

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

<u>Cook</u>

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 4 of 8

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

Fime 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.

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 5 of 8

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)

HOMECARE 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

PUBLISH DATE: 7/1/2015 EFFECTIVE PERIOD: JULY 1, 2015 THROUGH JUNE 30, 2016 Page 7 of 8

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.



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



INFRASTRUCTURE DIVISION BUREAU OF DESIGN

VOLUME 2 OF 3

PROJECT ID: SE803

FOR THE CONSTRUCTION OF SANITARY AND STORM SEWERS AND APPURTENANCES IN RAMBLE ROAD, ETC

INCLUDING WATER MAIN WORK

Together With All Work Incidental Thereto BOROUGH OF STATEN ISLAND CITY OF NEW YORK

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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
SPECIFICATIONS AND
REVISIONS TO STANDARD SPECIFICATIONS

FOR FURNISHING ALL LABOR AND MATERIALS NECESSARY AND REQUIRED FOR:

PROJECT ID: SE803

FOR THE CONSTRUCTION OF SANITARY AND STORM SEWERS AND APPURTENANCES IN RAMBLE ROAD, ETC

INCLUDING WATER MAIN WORK

Together With All Work Incidental Thereto BOROUGH OF STATEN ISLAND CITY OF NEW YORK

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

DECEMBER 23, 2015

46-090

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 contact Ms. Vivian Valdez, (212) 839-9435

New York City Department of Transportation Office of the Agency Chief Contracting Officer/Contract Management Unit 55 Water Street, Ground Floor (Bid Window) N.Y., NY 10041

- 1. NYCDOT Standard Highway Specifications, August 1, 2015
- 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

http://www.nyc.gov/html/dep/html/stormwater/green infrastructure standar

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

R - PAGES

REVISIONS TO THE NEW YORK CITY DEPARTMENT OF TRANSPORTATION STANDARD HIGHWAY SPECIFICATIONS

NOTICE

THE NEW YORK CITY DEPARTMENT OF TRANSPORTATION STANDARD HIGHWAY SPECIFICATIONS, DATED AUGUST 1, 2015, (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 REVISED HEREIN (R-PAGES) AND BY ADDENDA ISSUED PRIOR TO THE OPENING OF BIDS, SHALL APPLY TO AND BECOME A PART OF THE CONTRACT.

ALL REFERENCES CONTAINED HEREIN (R-PAGES) ARE TO THE NEW YORK CITY DEPARTMENT OF TRANSPORTATION, STANDARD HIGHWAY SPECIFICATIONS, DATED AUGUST 1, 2015. SAID STANDARD HIGHWAY SPECIFICATIONS ARE HEREBY REVISED UNDER THE FOLLOWING REVISIONS:

- 1. AMENDMENTS TO STANDARD HIGHWAY SPECIFICATIONS, VOLUME I
- 2. AMENDMENTS TO STANDARD HIGHWAY SPECIFICATIONS, VOLUME II

(NO TEXT ON THIS PAGE)

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:

(NO TEXT)

2. AMENDMENTS TO STANDARD HIGHWAY SPECIFICATIONS, VOLUME II

(NO TEXT)

SCHEDULE "A"

(<u>GENERAL CONDITIONS TO CONSTRUCTION CONTRACT</u>) (<u>INCLUDING GENERAL CONDITIONS RELATED TO ARTICLE 22 - INSURANCE</u>)

PART I. REQUIRED INFORMATION

INFORMATION FOR BIDDERS SECTION 26 BID SECURITY The Contractor shall obtain a bid security in the amount indicated to the right.	Required provided the TOTAL BID PRICE set forth on the Bid Form is \$1,000,000 or more. Certified Check: 2% of Bid Amount or Bond: 10% of Bid Amount
INFORMATION FOR BIDDERS SECTION 26 PERFORMANCE AND PAYMENT BONDS	Required for contracts in the amount of \$1,000,000 or more.
The Contractor shall obtain performance and payment bonds in the amount indicated to the right.	Performance Security and Payment Security shall each be in an amount equal to 100% of the Contract Price.
CONTRACT ARTICLE 14. DATE FOR SUBSTANTIAL COMPLETION The Contractor shall substantially complete the Work in the number of calendar days indicated to the right.	See Page SA-4
CONTRACT ARTICLE 15. LIQUIDATED DAMAGES 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.	For Each Consecutive Calendar Day Over Substantial Completion Time: \$1,500.00
CONTRACT ARTICLE 17. SUB-CONTRACTOR The Contractor shall not make subcontracts totaling an amount more than the percentage of the total Contract price indicated to the right.	Not to Exceed 35% of the Contract Price
CONTRACT ARTICLE 21. RETAINAGE The Commissioner shall deduct and retain until the substantial completion of the Work the percent value of the Work indicated to the right.	5% of the Value of the Work
CONTRACT ARTICLE 22. (Per Directions Indicated To The Right)	See pages SA-5 through SA-9

CONTRACT ARTICLE 24. DEPOSIT GUARANTEE 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.	1% of Contract Price
CONTRACT ARTICLE 24. PERIOD OF GUARANTEE Periods of maintenance and guarantee other than the period set forth in Article 24.1 are indicated to the right.	Eighteen (18) Months, excluding Trees Twenty-Four (24) Months for Tree Planting
CONTRACT ARTICLE 74. STATEMENT OF WORK The Contractor shall furnish all labor and materials and perform all Work in strict accordance with the Contract Drawings, Specifications, and all Addenda thereto.	See Contract Article 74
CONTRACT ARTICLE 75. COMPENSATION TO BE PAID TO CONTRACTOR 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.	See Contract Article 75
CONTRACT ARTICLE 78. PARTICIPATION BY MINORITY-OWNED AND WOMEN- OWNED BUSINESS ENTERPRISES IN CITY PROCUREMENT	See M/WBE Utilization Plan in the Bid Booklet

STANDARD HIGHWAY SPECIFICATIONS SECTION 6.40 LIQUIDATED DAMAGES FOR ENGINEER'S FIELD OFFICE

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.

For Each Calendar Day of Deficiency: \$250.00

STANDARD HIGHWAY SPECIFICATIONS SECTION 6.70 LIQUIDATED DAMAGES FOR MAINTENANCE AND PROTECTION OF TRAFFIC

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: \$250.00

For each and every hour of failing to open the entire width of roadway to traffic the morning following a night/weekend work operation: \$500.00

STANDARD HIGHWAY SPECIFICATIONS SECTION 7.13 LIQUIDATED DAMAGES FOR MAINTENANCE OF SITE

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.

For Each Calendar Day, for Each Occurrence: \$250.00

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	1095	consecutive calendar of	lays ("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

<u>Note</u>: 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

TYPES OF INSURANCE (per Article 22 in its entirety, including lis	ted paragraph)	MINIMUM LIMITS AND SPECIAL CONDITIONS
Commercial General Liability	Art. 22.1.1	The minimum limits shall be \$3,000,000 per Occurrence and \$6,000,000 per Project Aggregate applicable to this Contract.
		Additional Insureds:
		(1) 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.
		(2) 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).
		(3) 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.
		(4) National Grid

Workers' Compensation	Art. 22.1.2	Workers' Compensation, Employers' Liability, and Disability Benefits Insurance: Statutory per New York State law without
Disability Benefits Insurance	Art. 22.1.2	regard to jurisdiction.
Employers' Liability	Art. 22.1.2	Note: The following forms are acceptable: (1) New York State Workers' Compensation Board Form No. C-105.2, (2)
☐ Jones Act	Art. 22.1.3	State Insurance Fund Form No. U-26.3, (3) New York State Workers' Compensation Board Form No. DB-120.1 and (4)
U.S. Longshoremen's and Harbor Workers Compensation Act	Art. 22.1.3	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.
		Jones Act and U.S. Longshoremen's and Harbor Workers' Compensation Act: Statutory per U.S. Law.
		Additional Requirements:
		(1) 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.
		(2) 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.
☐ Builders' Risk	Art. 22.1.4	100% of Total Value of Work
		Contractor the Named Insured; the City both an Additional Insured and one of the loss payees as its interests may appear.
		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.
		Note: Builders Risk Insurance may terminate upon Substantial Completion of the Work in its entirety.
Commercial Auto Liability	Art. 22.1.5	\$2,000,000 per accident combined single limit
		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.
		Additional Insureds:
		(1) City of New York, including its officials and employees.
		(2) 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.
-		(3)

☐ Contractors Pollution Liability	Art. 22.1.6	\$ per occurrence
		\$aggregate
		Additional Insureds:
		(1) City of New York, including its officials and employees.
		(2)
		(3)
☐ Marine Protection and Indemnity	Art. 22.1.7(a)	\$each occurrence
		\$ aggregate
		Additional Insureds:
		(1) City of New York, including its officials and employees.
		(2)
		(3)
☐ Hull and Machinery Insurance	Art. 22.1.7(b)	\$ per occurrence
		\$ aggregate
		Additional Insureds:
		(1) City of New York, including its officials and employees.
		(2)
		(3)
☐ Marine Pollution Liability	Art. 22.1.7(c)	\$ per occurrence
		\$ aggregate
		Additional Insureds:
		(1) City of New York, including its officials and employees.
		(2)
		(3)

[OTHER]

Art. 22.1.8

Railroad Protection Liability Policy

(ISO-RIMA or equivalent form) approved by Permittor 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:

- Policy Endorsement CG 28 31 Pollution Exclusion Amendment is required to be endorsed onto the policy when environmentalrelated 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 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.

\$2,000,000 per occurrence

\$6,000,000 annual aggregate

Named Insureds:

- (1) 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.
- (2)

[OTHER]

Art. 22.1.8

Professional Liability

- 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.
- 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.

[OTHER]

Art. 22.1.8

Engineer's Field Office

Section 6.40, Standard Highway Specifications

Fire insurance, extended coverage and vandalism, malicious mischief and burglary, and theft insurance coverage in the amount of \$40,000

[OTHER]

Art. 22.1.8

The Following Additional Insurance Must Be Provided:

<u>Umbrella/Excess Liability Insurance</u> - 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.

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:

 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 O	<u>. </u>

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

SEWER AND WATER MAIN REVISIONS TO SPECIFICATIONS

NOTICE

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 August 1, 2015) 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

(NO TEXT ON THIS PAGE)

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 August 1, 2015), 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.

DATED: DECEMBER 23, 2015

B. AMENDMENTS TO THE STANDARD HIGHWAY SPECIFICATIONS

(NO TEXT)

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. Andrew Chin at (718) 425-6794.

(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. David Reid at (718) 977-8138.

(4) TIME WARNER CABLE OF NEW YORK CITY

There are TIME WARNER CABLE facilities in the area of construction. The Contractor shall notify TIME WARNER CABLE at least seventy-two (72) hours prior to the start of construction by contacting Mr. Marcello Demaio at (917) 335-9181.

- (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. Edward Coleman, P.E., Assistant Commissioner, Engineering and Planning 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. John Kilcullen, Forester 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) and Section 10.25 paragraph (B)

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)** and **Section 10.25 paragraph (B)**.
- (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

- (1) Staten Island Railway reserves the right to place inspectors, flagmen or other personnel within the railway or subway structures or property during construction of the project linked by a telephone system, if deemed necessary, to observe the effects of the construction on the transit facilities. It is expected that such personnel will be necessary when the construction comes within twenty-five (25) feet of the railway or subway structure or property. However, NYCT further reserves the right to place such personnel whenever, in its opinion, the project conditions warrant such placement, regardless of distance. The cost of such personnel, telephone installation and any re-routes, diversions of service, work trains, etc., made necessary by the project, will be paid for directly to the Transit Authority by the City, at no cost to the Contractor.
- (2) All rock excavation adjacent to the transit structure is to be channel drilled two (2) feet below subgrade.
- (3) If top of rock is found below railway or subway structure, the railway or subway structure must be underpinned in accordance with drawings to be submitted to NYCT for approval.
- (4) If rock is soft or seamy, lateral supports must be provided below the railway or subway structure in accordance with drawings to be submitted to NYCT for approval.

(5) Blasting will be permitted only with light charges subject to the approval of NYCT's Engineer and in accordance with the regulations of the Fire Department. The Contractor shall provide a detailed monitoring plan, providing for measurements of both particle velocity and displacements at critical locations of the NYCT structure. The monitoring plan shall include threshold and upset levels of both particle velocity and settlement together with an action plan for their implementation. The Contractor shall secure an approved seismologist to install and operate suitable velocity gauges to continuously monitor particle velocity and an independent licensed surveyor to monitor displacements. The threshold maximum particle velocity above ambient caused by the blasting will be 0.5 inch per second. Values exceeding this level will be reviewed and evaluated by NYCT's Engineer. In no case will particle velocities exceed the upset level of 2.0 inches per second.

- (6) Before placing concrete, the subgrade of the foundations in the vicinity of the railway or subway structure is to be inspected and approved by NYCT's Engineer.
- (7) If any portion of the railway or subway structure or finish is damaged as a result of the Contractor's operations, it shall be repaired or replaced with the same materials in place, subject to the approval of NYCT's Engineer and at the Contractor's own expense.
- (8) Excavation embankments are to be shored and braced. Drawings indicating a suggested method of construction are to be submitted to NYCT for approval in conjunction with the project's contract drawings. In case of excavation undermining the railway or subway structure, underpinning may be required. Drawings for underpinning are to be submitted to NYCT for approval.
- (9) Temporary shoring may be placed in direct contact with transit structures only if the transit structure is shown to be able to support all anticipated loads that can be transferred through the temporary structures without damaging the existing structure. At the completion of the project, these temporary shoring and bracing systems are to be removed or cut-off as approved by NYCT.
- (10)When piles are to be driven adjacent to the railway or subway structure, boring data, pile layouts, specifications and installation procedures are to be submitted to NYCT for approval. Velocity meters are to be installed in the subway tunnel at critical locations to monitor induced vibrations. Induced displacements along the tunnel or railway structure and track invert are to be monitored during driving. The threshold maximum particle velocity above ambient caused by the driving will be 0.5 inch per second. Values exceeding this level will be reviewed and evaluated by NYCT's Engineer. In no case will particle velocities exceed the upset level of 2.0 inches per second.
- (11)No piles are permitted to be installed by any method within three (3) feet of railway or subway structure measured from the edge of the pile or casing to the wall. Closed-end piles will not be permitted to be driven within ten (10) feet of the railway or subway structure.
- (12)All piles are to be placed within a preaugered cased hole to the influence line. The casing shall be cleaned without disturbing the soil outside the casing and the pile placed within the casing for installation. The piles may then be driven beyond the influence line within the casing.
- (13)The influence line shall start at the bottom of the railway or subway structure and sidewall and extend at a 1:1 slope. For piles installed within ten (10) feet of the railway or subway structure the casing shall be extended up to the bottom of the railway or subway structure.
- (14)At the completion of pile installation, the space between the pile and the casing is to be filled with either clean sand or grout. If the casing is to be removed, the filling must be completed prior to removal of the casing.
- (15)All piles are to be driven a minimum of ten (10) feet below the intersection of the pile centerline and the influence line of the railway or subway structure.
- (16)The use of "down-the-hole-hammers" for installation of piles through overburden and fill will be permitted only to remove boulders. It will not be permitted as a matter of course to advance the

hole. Their use to construct rock sockets will not be allowed within five (5) feet of the transit structure.

- (17)Vibratory hammers will not be permitted within seventy-five (75) feet of railway or subway structures. Hoerams will not be permitted within twenty-five (25) feet of railway or subway structures.
- (18)Dynamic compaction methods using dropped heavy weights cannot be conducted within one thousand (1,000) feet of any transit structure unless it is shown that induced settlements and vibrations will not damage these structures. A suitable monitoring plan including settlement and vibration measurements must be approved by NYCT's Engineer for all such operations within these distances.
- (19) There shall be no machine excavation within three (3) feet of transit structures, power duct lines, or any other facilities until they have been carefully exposed by hand excavation.
- (20)All dewatering operations conducted within five hundred (500) feet of the transit structure must be performed in accordance with drawings and procedures submitted to NYCT for approval. The distance from the structure to the dewatering operation can be reduced provided that soil conditions at the site indicate that the radius of influence of the dewatering is less than five hundred (500) feet. For dewatering within the radius of influence, the dewatering program must be shown to have negligible influence on settlements of the transit structure.
- (21)Subway entrances (ventilators, etc.) are to be underpinned or shored and braced if directed by NYCT's Engineer.
- (22)NYCT, at its discretion, reserves the right to require the project to close or maintain and protect existing subway entrances, ventilators, etc. adjacent to the project during construction. Such construction may include underpinning, shoring, bracing and erection of suitable barricades and/or canopies and shields. Such protection shall be in accordance with drawings submitted to NYCT for approval.
- (23)If shields are to be installed to protect Staten Island Railway facilities and/or the public, plans showing the location, type and method of attachment to the transit structure must be submitted to NYCT for approval.
- (24)All lumber and plywood used for protection of railway or subway facilities must be fire retardant.
- (25)Subway emergency exists must be kept clear at all times.
- (26)In excavation over or near the subway roof, special care shall be exercised so that the thin concrete protection of the subway waterproofing is not damaged.
- (27)Burning of, welding to or drilling through existing steel structures will not be permitted except as shown on drawings approved by NYCT.
- (28)Horizontal and vertical control survey data of the existing transit structure is to be taken by a Licensed Land Surveyor to monitor any movements that occur during construction and to show that the induced movements are within allowables provided and approved by NYCT's Engineer. If any movements exceed allowables, remediation as approved by NYCT shall be performed.
- (29)Bus routes affected by the project will or may require bus diversions. These 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

DATED: DECEMBER 23, 2015 PROJECT ID.: SE803

Telephone No. (646) 252-5517 sarah.wyss@nyct.com

When impacting any bus stop, Special Operations must be notified two (2) weeks in advance.

(30)Duct lines must be maintained and protected during construction. Any interference with duct lines should be reported to NYCT inspector. When a duct line containing cables is to be removed, or when masonry adjacent thereto is to be removed, penetrated, or drilled, the work shall be done with hand labor entirely, using hammer and chisel. Jackhammers, bull points or other power equipment shall not be used.

(31)Where manholes are encountered:

- (a) They shall be protected and raised or lowered as required, to match the new street grade.
- (b) If manhole covers are raised or lowered, protect cables in manhole by wood sheeting of two (2) inches nominal thickness.
- (c) Prior to the start of construction operations affecting manholes and duct lines, seven (7) days notice must be given to Mr. S. Kolta, P.E., Director, Engineering and Capital Programs, Staten Island Railway, 60 Bay Street, 5TH floor, Staten Island, NY 10301 at (718) 876-8261.

(32)Construction work done near vent gratings and hatches shall be as follows:

- (a) Unless approved by the NYCT's Engineer, all vent gratings and hatches should remain outside the construction site, separated by a construction fence. Protective shields must be provided over vent gratings as required by NYCT's Engineer.
- (b) No building material, vehicles or construction equipment is to be stored or run over vent, gratings, hatches or emergency exits.
- (c) Details of sidewalk reconstruction around vent gratings, hatches and emergency exists are to be submitted to NYCT for approval.
- (33)Tractors, cranes, excavators, etc. used in the vicinity of the elevated structures shall be isolated from the ground. Since the elevated structure is used as a negative return path, with a consequent potential between it and the ground, any contact between the structure and grounded equipment could result in burning of the steel.
- (34)Temporary construction sheds, barricades or plywood partitions must be a minimum of five (5) feet from edge of finished platform.
- (35)Station Areas or Stairway/Entrance closings: The general requirements for Station Areas or Stairway/Entrance closings are as follows:
 - (a) Only one (1) stairway at each station will be permitted to be closed at the same time. Approvals for closing any stairway must be obtained from the Division of Station Operations at least three (3) weeks in advance. A letter and sketch must accompany each request submitted to: Mr. Rajen Udeshi, P.E., Principal Engineer, New York City Transit, Capital Program Management-Outside Projects, 2 Broadway, 7TH Floor, New York, NY 10004.
 - (b) Mr. Ashok Patel, Director, Office of Station Programs; Telephone (718) 694-1695 of the Division of Stations must be notified one (1) week prior to the actual closing and reopening of the entrance.
 - (c) Ample signage must be supplied and posted at least one (1) week in advance, advising the public of the proposed subway stair closing.
 - (d) The street entrance stairway should not be closed unless manpower and materials are available to commence work on dates permitted.
 - (e) Once the closing is effected construction signs must be placed at appropriate locations on the barricades at the street and mezzanine levels, stating the Contractor's name, 24-hour emergency telephone number, contract number, the duration of the closing, direction to an alternate entrance/exit, and an apology for the inconvenience to our customers.
 - (f) Existing station signage must be adjusted to reflect any changes in access/egress.

DATED: DECEMBER 23, 2015

(g) Barricades are to be painted and kept graffiti free at all times. The Contractor must maintain the barricaded area clean of all debris.

PROJECT ID.: SE803

- (h) All materials are to be properly stored and secured away from passenger traffic.
- (i) The Contractor must remove all waste material and barricades from all station areas when construction is completed.
- (j) Inspection of the area under construction by authorized Station Department employees shall not be inhibited.
- (k) If street lights on the sidewalks are affected, temporary lights shall be provided.
- (36)If new concrete construction is joined to existing concrete, dowels and keyways are to be used in accordance with NYCT Standards.
- (37)If the project involves construction or alteration of a railway or subway facility on private property, the property owners will be required to enter into an agreement with NYCT pertaining to all work affecting the transit facilities and clearly defining limits and responsibility for maintenance and liability.
- (38)Wherever a new sidewalk is being placed adjacent to transit structures the following will be required:
 - (a) The top of the new sidewalk shall be flush with the subway vent gratings, hatches and emergency exits.
 - (b) The slope of the new sidewalk shall be such that the drainage be away from these structures.
 - (c) A one-half (1/2) inch premolded filler shall be installed between the new sidewalk and transit structure.
 - (d) Where sidewalk elevations are being changed details of proposed work around transit structures are to be submitted for approval.
- (39)Before the start of any work, the Contractor shall make an examination, in the presence of NYCT's Engineer, of the interior and exterior of NYCT subway or other structure adjacent to the proposed work. The person or persons authorized by the Contractor to make these examinations shall be approved by the Engineer. The Contractor shall take all photographs as may be necessary or ordered to indicate the existing condition of NYCT structure. One (1) copy of each photograph, eight (8) inches by ten (10) inches in size, and the negative is to be submitted to Mr. John Malvasio, P.E., Director, Department of Maintenance-Of-Way, 130 Livingston Street, Room 8044D, Brooklyn, New York 11201, Telephone (718) 694-1358 before the start of construction.
- (40)All architectural details (token booths, railings, doors, etc.) are to conform to the latest NYCT Standards. These standards are available at NYCT.
- (41)Standard Staten Island Railway insurance clauses are to be made part of the Project's contract drawings. Proof that the necessary insurance is in effect will be required before work can commence.
- (42)At the close of any project involving construction or alterations to transit facilities, one (1) set of vellums or mylars, five (5) sets of 35mm microfilm, and electronic copies complying to microstation.dgn format of "approved as-builts" must be provided to NYCT for its records. For details of specific requirements contact NYCT Outside Projects.
- (43)At least seven (7) working days prior to the start of construction operations, notification must be given to Mr. John Malvasio, P.E., Director, Department of Maintenance-Of-Way, at (718) 694-1358. The Contractor shall provide temporary quarters near the job site for Staten Island Railway inspectors containing a desk and telephone.

(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 (Permittor) 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 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 Permittor 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 Permittor/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 Permittor 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) <u>Business Automobile Liability Insurance Policy</u> (I.S.O. Form CA 00 01 10 01 or equivalent) approved by the Permittor is required if Permittee's vehicle enters Permittor property. The insurance must be in the name of the Permittee or its contractor entering the Permittor 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 Permittor 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 Permittor/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 Permittor 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 permittor:

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 Permittor 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 Permittor/MTA, and also that the contractor's policies, primary and excess, must be exhausted before implicating any Permittor/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 Permittor/MTA policy available, contractor's and subcontractor's policies shall nevertheless be primary and must be exhausted before implicating any Permittor/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 Permittor/MTA. The Permittee shall be responsible for all claim expense and loss payments within the deductible or selfinsured 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 Permittor, 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 Permittor 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 Permittor, the Permittor 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.
- (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 (five (5) pages) that are attached to the end of this section, 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 <u>not</u> 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 WATER WITHDRAWAL 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 Water Withdrawal 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. This permit is required only in the Boroughs of Manhattan, The Bronx and Staten Island for any withdrawal system having a capacity to withdraw 100,000 gallons per day or more of groundwater, surface water or combination thereof, 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 a minimum of five (5) years experience 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 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 and the signature of the preparer.

40.14.4 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.

40.14.5 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.

40.14.6 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 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 Adrienne Place between Ramble Road between Adrienne Place and Dent Road; Brown Avenue and Amboy Road; Clovis Road between Adrienne Place and Dead End; Hillside Terrace between Locust Place and Grandview Terrace; Brown Avenue between Amboy Road and Locust Place; Cleveland Terrace between Locust Place and Grandview Avenue; Rustic Place between Nelson Avenue and Hillside Terrace; Grandview Terrace between Nelson Avenue and Hillside Terrace; Belden Street between Nelson Avenue and Dead End; Locust Place between Nelson Avenue and Hillside Terrace; Amboy Road between Nelson Avenue and up to 140' East of Hillside Terrace; Hillside Avenue between Amboy Road and Locust Place; and Nelson Avenue between Amboy Road and Monticello Terrace, the restoration shall be as follows:

DATED: DECEMBER 23, 2015

(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.

PROJECT ID.: SE803

- (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 Amboy Road between Seeley Lane and Nelson Avenue; and between 140' East of Hillside Terrace and Adrienne Place; Monticello Terrace between Nelson Avenue and Grandview Terrace; and Dent Road up to water main limit, 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>	Payment Description
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.)
4.05 AX	High Early Strength Reinforced Concrete Pavement (Bus Stops)	(For reinforced concrete pavement in bus stop area.)

DATED: DECEMBER 23, 2015 PROJECT ID.: SE803

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 THIS SECTION

This Section consists of seventeen (17) pages plus five (5) pages of attachments.

NO TEXT ON THIS PAGE



Department of Transportation

POLLY TROTTENBERG, Commissioner

OCMC TRAFFIC STIPULATIONS

8/19/15

OCMC FILE NO:

REC-15-505 SE803

CONTRACT NO: PROJECT:

CONSTRUCTION OF STORM AND SANITARY SEWERS. INSTALLATION OF DISTRIBUTION OF WATER

MAINS AND APPURTENANCES

LOCATION(S):

VARIOUS LOCATIONS

PERMISSION IS HEREBY GRANTED TO THE **NYCDDC** 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:

. SPECIAL STIPULATIONS

- A. <u>EMBARGOES</u> A CONSTRUCTION EMBARGO WILL APPLY TO THOSE LOCATIONS BELOW WHICH FALL WITHIN THE <u>HOLIDAY EMBARGO</u> OR ANY OTHER SPECIAL EVENT EMBARGOES PUBLISHED BY THE BUREAU OF PERMIT MANAGEMENT AND CONSTRUCTION CONTROL.
- B. <u>BIKE LANES</u> 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).
- C. 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.
- D. <u>CITYBENCH</u>: THE PERMITTEE SHALL NOT REMOVE, RELOCATE, DAMAGE OR DISRUPT AN EXISTING CITYBENCH WITHOUT FIRST CONTACTING NYC DOT at 212-839-6569, OR VIA EMAIL AT <u>CITYBENCH@DOT.NYC.GOV</u> PRIOR TO COMMENCING WORK.
- E. PROTECTION OF NYC DEP GREEN INFRASTRUCTURE: THE PERMITTEE SHALL TAKE PRECAUTION OF NYC DEP GREEN INFRASTRUCTURE IN THE RIGHT-OF-WAY. THE PERMITTEE MUST PROTECT NYC DEP GREEN INFRASTRUCTURE DOWNSTREAM OF THE WORK OR WITHIN THYE (5) FEET OF THE WORK AREA. THE PERMITTEE MUST EMAIL NYC DEP AT SUSTAINABILITY@DEP.NYC.GOV FOR PROTECTION REQUIREMENTS PRIOR TO COMMENCING WORK. THE PERMITTEE IS RESPONSIBLE FOR RESTORATION OF DAMAGED NYC DEP INFRASTRUCTURE AS DIRECTED BY NYC DEP.
- F. 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.
- G. 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.
- H. TRAFFIC CAMERAS, DETECTION/COMMUNICATION EQUIPMENT: IF AT ANY TIME DURING THE APPROVED WORK, THE PERMITTEE ENCOUNTERS TRAFFIC SURVEILLANCE CAMERAS, DETECTION EQUIPMENT OR ANY TYPE OF COMMUNICATION EQUIPMENT (WIRELESS OR HARD-WIRED) ON ANY NYC DOT FACILITY, THAT IS NOT INCLUDED ON THE DESIGN/BUILD DRAWINGS, THE PERMITTEE SHALL IMMEDIATELY NOTIFY NYC DOT TRAFFIC MANAGEMENT BY PHONE AT 718-433-3390 OR 718-433-3340 AND VIA EMAIL AT TIMO@DOT.NYC.GOV AND AWAIT DIRECTION PRIOR TO CONTINUING WORK.
- METERS THE PERMITTEE SHALL NOT REMOVE OR RELOCATE PARKING METERS WITHOUT FIRST OBTAINING APPROVAL FROM NYCDOT PARKING METER DIVISION AT 718 - 894 - 8651.
- J. <u>TEST PITS</u> 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.
- K. 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.
- L. 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.

NYC Department of Transportation

u of Permit Management and Construction Control

vater Street - 7th Floor, New York, NY 10041

T: 212.839.9621 F: 212.839.8970

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 OCMC FILE NO: REC-15-505
 8/19/2015

 CONTRACT NO: SE803
 Page 2 of 5

PROJECT: CONSTRUCTION OF STORM AND SANITARY SEWERS. INSTALLATION OF DISTRIBUTION OF WATER MAINS

AND APPURTENANCES

- M. <u>AUTHORIZED PARKING</u> 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.
- N. NOTIFICATION THE PERMITTEE MUST AT LEAST TWO (2) WORKING DAYS BEFORE THE START OF CONSTRUCTION NOTIFY THE NYC FIRE DEPARTMENT, NYC POLICE DEPARTMENT, NYCEMS, LOCAL COMMUNITY BOARD, BOROUGH PRESIDENT'S OFFICE-CHIEF ENGINEER, NYCDOT OCMC OFFICE, AND ALL ABUTTING PROPERTY OWNERS.
- O. 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

P. ENHANCED MITIGATIONS

- ENHANCED MITIGATIONS FOR PEDESTRIAN FLOW, INCLUDING METAL FENCING, SHALL BE PROVIDED TO ENSURE PEDESTRIANS STAY
 WITHIN THEIR DESIGNATED PATH/ROUTE. PEDESTRIAN MANAGERS SHALL BE PROVIDED TO ASSIST WITH PEDESTRIANS AT THE DESIGNATED
 CROSSWALK AREAS.
- 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.

IL. MAINTENANCE AND PROTECTION OF TRAFFIC

- A. ADRIENNE PLACE BETWEEN HILLSIDE TERRACE AND AMBOY ROAD
- B. RAMBLE ROAD BETWEEN ADRIENNE PLACE AND DENT ROAD
- C. HILLSIDE TERRACE BETWEEN AMBOY ROAD AND GRANDVIEW TERRACE
- D. CLOVIS ROAD BETWEEN ADRIENNE PLACE AND DEAD END
- E. CLEVELAND AVENUE BETWEEN LOCUST PLACE AND DURANT AVENUE
- F. NELSON AVENUE BETWEEN LOCUST PLACE AND HILLCREST STREET
- G. RUSTIC PLACE BETWEEN NELSON AVENUE AND HILLSIDE TERRACE
- H. GRANDVIEW TERRACE BETWEEN NELSONA VENUE AND HILLSIDE TERRACE
- I. MONTICELLO TERRACE BETWEEN NELSON AVENUE AND CLEVELAND AVENUE
- J. DURANT AVENUE BETWEEN CLEVELAND AVENUE AND HILLSIDE TERRACE
- K. BELDEN STREET BETWEEN NELSON AVENUE AND DEAD END
- L. LOCUST PLACE BETWEEN NELSON AVENUE AND HILLSIDE TERRACE
- M. DENT ROAD BETWEEN HILLSIDE TERRACE AND RAMBLE ROAD

N. PLEASANT STREET BETWEEN NELSON AVENUE AND LINDENWOOD ROAD

- Work hours shall be as follows: 7am-6pm Monday-Friday
- During work hours for water work, the Permittee shall maintain one 12ft lane for local and emergency access. After working hours full width of the roadway shall be opened to traffic
- Work hours for sewer work shall be as follows: 7AM TO 6PM MONDAY-FRIDAY. During work hours, the Permittee shall maintain one 11 ft lane for local and emergency access with flaggers at each end of work zone. After working hours:
- **a.** The Permittee shall maintain one (1) 11-foot lane for local and emergency traffic. In areas where the roadway is not wide enough to allow for local and emergency traffic, the Permittee's work shall not exceed one hundred (100) linear feet, so that the NYC Fire Department/EMS and the NYC Police Department can have access to the local residents on the affected street segment. The work area shall include the excavated trench, equipment and stored materials necessary for the work.
- **b.** It will be the Permittee's responsibility to inform the NYC Fire Department/EMS, NYC Police Department and local Community Board daily, in writing, including the location of the work area and the layout of the emergency access from either side of the work area. This notification shall be specific by the house number where possible. Representatives of the local NY Fire Battalion, NYC Police Department and the local Community Board shall sign such notice daily.

OCMC FILE NO: REC-15-505

CONTRACT NO: SE803

PROJECT: CONSTRUCTION OF STORM AND SANITARY SEWERS. INSTALLATION OF DISTRIBUTION OF WATER MAINS

 The Permittee shall maintain a 5ft wide pedestrian walkway either on the sidewalk or on the roadway

 When working in a school zone (the immediate block and intersections abutting the school), work is permitted during school recess only.

O. BROWN AVENUE BETWEEN AMBOY ROAD AND LOCUST PLACE

- Work hours shall be as follows: 9am-4pm Monday-Friday with a full roadway closure during working hours and the contractor must post signs for sending pedestrians to the opposite side of the street.
- After working hours:

AND APPURTENANCES

- a. The Permittee shall maintain one (1) 11-foot lane for local and emergency traffic. In areas where the roadway is not wide enough to allow for local and emergency traffic, the Permittee's work shall not exceed one hundred (100) linear feet, so that the NYC Fire Department/EMS and the NYC Police Department can have access to the local residents on the affected street segment. The work area shall include the excavated trench, equipment and stored materials necessary for the work.
- b. It will be the Permittee's responsibility to Inform the NYC Fire Department/EMS, NYC Police Department and local Community Board daily, in writing, including the location of the work area and the layout of the emergency access from either side of the work area. This notification shall be specific by the house number where possible. Representatives of the local NY Fire Battalion, NYC Police Department and the local Community Board shall sign such notice daily.
- After work hours, the Permittee shall maintain a 5ft wide pedestrian walkway either on the sidewalk or on the roadway
- P. INTERSECTION OF ADRIENNE PLACE NAD RAMBLE ROAD
- Q. INTERSECTION OF RAMBLE ROAD AND CLINTON ROAD
- R. INTERSECTION OF HILLSIDE TERRACE AND ADRIENNE PLACE
- S. INTERSECTION OF HILLSIDE TERRACE AND LOCUST PLACE
- T. INTERSECTION OF HILLSIDE TERRACE AND DENT ROAD
- U. INTERSECTION OF HILLSIDE TERRACE AND RUSTIC PLACE
- V. INTERSECTION OF HILLSIDE TERRACE AND GRANDVIEW TERRACE
- W. INTERSECTION OF BROWN AVENUE AND LOCUST PLACE
- X. INTERSECTION OF CLEVELAND AVENUE AND RUSTIC PLACE
- Y. INTERSECTION OF CLEVELAND AVENUE AND GRANDVIEW TERRACE
- Z. INTERSECTION OF MONTICELLO TERRACE AND CLEVELAND AVENUE
 - Work hours shall be as follows: 7am-6pm Monday-Friday.
- During work hours, the Permittee shall maintain one 12ft lane for traffic on both roadways. After working hours full width of the roadway shall be opened to traffic.
 - Flagmen must be provided to assist the traffic during working hours.
- When working in a school zone (the immediate block and intersections abutting the school), work is permitted during school recess only.
- AA. INTERSECTION OF AMBOY ROAD AND LINDENWOOD ROAD
- BB. INTERSECTION OF AMBOY ROAD AND NOLAN AVENUE
- CC. INTERSECTION OF AMBOY ROAD AND NELSON AVENUE
- DD. INTERSECTION OF AMBOY ROAD AND GIFFORDS LANE
- EE. INTERSECTION OF AMBOY ROAD AND HILLSIDE TERRACE
- FF. INTERSECTION OF AMBOY ROAD AND ADRIENNE PLACE

PROJECT: CONSTRUCTION OF STORM AND SANITARY SEWERS. INSTALLATION OF DISTRIBUTION OF WATER MAINS

AND APPURTENANCES

GG. INTERSECTION OF NELSON AVENUE AND LOCUST PLACE

- HH. INTERSECTION OF NELSON AVENUE AND BELDEN STREET
- II. INTERSECTION OF NELSON AVENUE AND RUSTIC PLACE
- JJ. INTERSECTION OF NELSON AVENUE AND GRANDVIEW TERRACE
- KK. INTERSECTION OF NELSON AVENUE AND EDGEWOOD ROAD
- LL. INTERSECTION OF NELSON AVENUE AND MONTICELLO TERRACE

MM.INTERSECTION OF NELSON AVENUE AND HILLCREST STREET

- NN. INTERSECTION OF NELSON AVENUE AND PLEASANT STREET
 - Work hours shall be as follows: 9am-4pm Monday-Friday.
- During work hours, the Permittee shall maintain one 12ft lane for traffic on both roadways. After working hours full width of the roadway shall be opened to traffic.
 - Flagmen must be provided to assist the traffic during working hours.
- When working in a school zone (the immediate block and intersections abutting the school), work is permitted during school recess only.
 - A special Holiday Construction Embargo is in effect for all Amboy Road intersections. No work shall be performed from November 15th to January 2nd of each year of the contract.

OO. AMBOY ROAD BETWEEN SEELEY LANE AND ADRIENNE PLACE

PP. NELSON AVENUE BETWEEN AMBOY ROAD AND LOCUST PLACE

- Work hours shall be as follows: 9am-4pm Monday-Friday.
- During the working hours, the Permittee shall maintain one 12ft lane for two-way traffic with the help of flaggers at both ends of the work zone.
- After the working hours, the contractor shall open the full width of the roadway to traffic.
- The Permittee shall provide and maintain either a 5 ft clear sidewalk or a 5ft wide protected walkway in the roadway for pedestrian access at all times.
- A special Holiday Construction Embargo is in effect for these locations. No work shall be performed from November 15th to January 2nd of each year of the contract.

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. THE PERMITTEE MUST COMPLY WITH ALL CONSTRUCTION EMBARGOS ISSUED BY THE NYCDOT INCLUDING THE HOLIDAY EMBARGO.
- C. THE PERMITTEE SHALL COMPLY WITH ALL REQUIREMENTS OF THE NYCDOT SPECIAL EVENTS UNIT AS IDENTIFIED BELOW:

1. 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.

2. 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.

3. 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.

4. 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.
- D. 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.
- E. 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.
- F. 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.
- G. 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.
- H. 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.
- 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.
- J. 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-INCHARGE AND THE OCMC-STREETS.
- K. 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.
- L. 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.

DUANE BARRA

DIRECTOR

OCMC-STREETS

ILIR LUGJI

PROJECT MANAGER
OCMC-STREETS

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EP7 - PAGES

GAS COST SHARING (EP-7) STANDARD SPECIFICATIONS

NOTICE

THE PAGES CONTAINED IN THIS SECTION (EP7-PAGES) REPRESENT THE GAS COST SHARING WORK THAT SHALL APPLY TO AND BECOME A PART OF THE CONTRACT.

(NO TEXT ON THIS PAGE)

TABLE OF CONTENT

I - NOTICE TO ALL BIDDERS; GAS COST SHARING WORK

II - GENERAL PROVISIONS; GAS COST SHARING WORK

- General
- 2. Gas Interferences And Accommodations
 - 2a. Water Main Accommodations
 - 2b. Sewer Accommodations
- 3. Quantity Overruns, EP-7 Funded Bid Items
- 4. Changes And Extra Work
- 5. Excavation
- 6. Backfilling And Street Restoration
- 7. Non-Responsive Bids
- 8. Minimum Clearances
- 9. Work By Facility Operator
- 10. Materials Furnished By Facility Operator
- 11. Liability And Insurance
- 12. Width And Depth Of Excavation
- 13. Depth And Crossing Angles Of Gas Facilities
- 14. Maintenance Of Traffic For Gas Work
- 15. Relocated Gas And Temporary Systems Installation
- 16. Role Of Company Inspector
- 17. Coordination With Gas Company

III - TECHNICAL SECTION

	and Somions
SECTION 6.01 -	Trench Crossings; Support And Protection Of Gas Facilities And Services.
SECTION 6.02 -	Extra Excavation For The Installation Of Catch Basin Sewer Drain Pipes With
	Gas Interferences.
SECTION 6.02.1 -	Extra Excavation For The Installation Of Catch Basin Sewer Drain Pipes With
OLOTION G.GL.	Upstream Inverts Greater Than Six (6) Feet.
SECTION 6.03 -	Removal Of Abandoned Gas Facilities. All Sizes.
SECTION 6.03	Removal Of Abandoned Gas Facilities With Possible Coal Tar Wrap. All Sizes.
SECTION 6.03.1 -	(For Notional Crid Mark Only)
	(For National Grid Work Only)
SECTION 6.03.1a -	Removal Of Abandoned Gas Facilities With Possible Coal Tar Wrap. All Sizes.
	(For Con Edison Work Only)
SECTION 6.04 -	Adjust Hardware To Grade Using Spacer Rings/Adaptors. (Street Repaving.)
SECTION 6.05 -	Adjust Hardware To Grade By Resetting. (Road Reconstruction.)
SECTION 6.06 -	Special Care Excavation And Backfilling.
SECTION 6.07 -	Test Pits For Gas Facilities.
SECTION 6.09 -	Trench Excavation and Backfill for New Gas Mains and Services
SECTION 0.09 -	(For National Grid Work Only)
	Trench Excavation and Backfill for New Gas Mains and Services
SECTION 6.09a -	
	(For Con Edison Work Only)

IV - STANDARD SKETCHES; GAS COST SHARING WORK

- NO. 1 Support Requirements For Gas Mains And Services Crossing Excavation Greater Than 4'-0" Wide At Any Angle
- Support Requirements For Gas Mains Over 16" Diameter Up To And Including 48" NO. 1A -Diameter Crossing Excavation At Any Angle
- Typical Methods Of Measurement For Gas Crossings
- Utility Crossings During Catch Basin Chute Connection Pipe Installation
- Utility Crossings During Catch Basin Chute Connection Pipe Installation (Extra Depth)
- Gas Main Encroachment On And/Or Parallel To Excavation Of Unsheeted Trench

- V PRELIMINARY GAS WORK TO BE PERFORMED BY FACILITY OPERATOR
- VI LISTING OF APPROXIMATE LOCATIONS OF EP-7 BID ITEMS QUANTITIES

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. Therefore, this contract includes bid items, specifications and This shall be defined as utility work. 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 "<u>UTL-GCS-2WS - GAS INTERFERENCES AND ACCOMMODATIONS</u>". When EP-7 bid item "<u>UTL-GCS-2WS - GAS INTERFERENCES AND ACCOMMODATIONS</u>" 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 basis 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:

- 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 "<u>UTL-GCS-2WS - GAS INTERFERENCES AND ACCOMMODATIONS</u>" 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 stockpilling 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.

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. 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 This section shall also apply to gas services (if shown or Sharing Work Standard Sketch No. 3"). 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:

- 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.

SECTION 6.09 - Trench Excavation and Backfill for New Gas Mains and Services (For National Grid Work Only)

1. Description:

Under this section, the contractor shall furnish all labor, materials, equipment, insurance, permits and incidentals required to break/remove roadway and sidewalk pavement, excavate, backfill and restore gas trenches. The trench to be excavated shall be determined by the size of the gas facility to be installed. The work shall be performed in accordance with applicable specifications, and/or at the direction of the Resident Engineer in consultation with the facility operator.

2. Materials:

All materials used to excavate and prepare trenches shall be supplied by the Contractor and be approved by the facility operator in consultation with the Resident Engineer.

3. Method of Construction:

Excavation - The Contractor shall saw cut and/or break and remove existing roadway which may include

but is not limited to, asphalt, concrete and cobblestone, utilizing approved equipment that leaves a neat straight joint line along the juncture with subsequently replaced pavement. Prior to starting the trenching operation, the contractor shall excavate the appropriate gas main tie-in pits at the extremities of the gas main sections to be replaced. Test pits shall be excavated to determine exact location of all tie-in pits and at appropriate intervals along proposed trench excavation to verify lane and clearances as shown on the contract plans. The tie-in pits shall be adequately protected by the contractor using wood fencing or steel traffic plates until such time when the facility operator has completed the tie-in work. The Contractor shall be permitted to excavate utilizing a combination of machine and hand excavation, as field conditions warrant, and as directed by the facility operator. The trench shall be adjusted so as to provide for a nominal cover on the new gas facilities or as required based on field conditions, applicable specifications, or as directed by the facility operator in consultation with the Resident Engineer. The width of the trench shall be as directed by the facility operator in consultation of the Resident Engineer. The bottom of the trench shall be graded smooth with a minimum cushion of 3 inches of clean sand and in conformance with applicable specification and be compacted, to minimize initial settlement and to avoid "point" support of new gas facilities. All stones projecting into the trench bottom shall be removed, and the voids backfilled before the new gas facilities are installed. Where streets are not to final grade, the cover shall be measured from the final grade, or the existing grade, whichever provides the deeper trench. Excavation in the vicinity of utilities and other structures shall be performed using hand tools. The contractor shall properly dispose of all materials excavated away from site. Size and location of excavation shall be as directed by the facility operator in consultation with the Resident Engineer. Trenches shall be excavated to a depth and size necessary to facilitate the installation of the new gas facility and in conformance with the applicable specification. All existing facilities that are encountered during trench excavating shall be protected in a manner suitable to the facility operator in consultation with the Resident Engineer. Tight sheeting shall be used, as required, based on field conditions and/or when the depth of excavation is equal to or greater than five feet. Skeleton type sheeting will not be permitted. The sheeting required shall be furnished and installed in full compliance with the State of New York and Federal Safety Code requirements and in compliance with applicable specifications and/or as directed by the facility operator in consultation with the Resident Engineer. Care shall be taken that no existing gas facilities or other structures are broken or damaged. Contractor shall excavate all material encountered necessary to facilitate the installation of the new gas facilities, and as directed by the facility operator. Care should be taken to avoid damage to existing utility facilities and structures, and to pavements and their foundations, and to avoid caving or sliding banks within the excavation.

Maintenance of Trench Excavation - Excavated trenches shall be maintained free of debris and kept dry by the contractor. In order to accomplish this, contractor shall, upon completion of excavation and placement of sheeting (as required and/or if depth is equal to or greater than five feet), furnish and install adequate steel plates, as directed by the facility operator in consultation with the Resident Engineer, and posting over the excavated trenches and shall temporarily remove all equipment debris and workers, and relocate barricades in order to open the full width of street to traffic during non-working hours, as required based on DOT requirements. National Grid forces will perform all live gas main connections, dead gas main cut-outs, and/or service work associated with disconnecting and reconnecting from old to new gas main 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 facility operator in consultation with the Resident Engineer to facilitate the installation of the new gas facilities. When work is being performed and the excavations are not covered with steel plates, the Contractor shall provide complete and safe access to the trench as may be required, and shall provide construction barricades and maintain traffic at all times as shown or as directed by the facility operator in consultation with the Resident Engineer. The contractor has the responsibility to maintain and set to grade all National Grid hardware during backfill and pavement restoration. Upon completion of installation of the new gas facility, the trench excavation shall be backfilled by the contractor in accordance with Contract requirements and all backfill material shall conform to contract specifications for such purpose.

Pavement and Sidewalk Restoration - After backfilling is completed, the contractor shall install temporary pavement consisting of six inches (6") thick asphaltic concrete mixture in roadway areas or a two inches (2") thick asphaltic concrete mixture in sidewalk areas in order to maintain existing pedestrian and vehicular traffic. This temporary pavement shall be maintained until permanent replacement as specified in contract. Permanent pavement restoration shall be as required by the appropriate contract

specifications and as directed by the Resident Engineer.

4. Method of Measurement:

The quantity to be measured for payment shall be the number of cubic yards (C.Y.) of trench actually excavated, including roadway pavement, base and/or sidewalk concrete removed within the limits of the trench as directed by the Resident Engineer in consultation with the facility operator. The volume occupied by existing pipes or other structures will be deducted from the total volume measured as shown on contract drawing(s) Title: EP-7 SECT. 6.09 GAS SPECIALTY CONTRACTOR WORK, or as encountered based on existing field conditions.

5. Price to Cover:

The unit price bid per cubic yard for excavation shall include the cost of all supervision, labor, material, equipment, insurance and incidentals necessary to complete excavation trenches, including backfill, compaction testing and restoration of trenches and tie-ins pits as specified or shown on the contract, plans. The bid price shall also include the cost of coordinating the sewer and water main work to be performed by the contractor with the gas installation work to be performed by others. The price shall also include, associated maintenance of traffic, and traffic plates and openings and closings of plates as may be required in order to provide access to the facility operator during the new gas facility installation, and installing, removing and maintaining tight sheeting that may be required, cut, break and remove various thickness of surface and base pavement, excavate by hand, furnish, place and compact, in compliance with DOT requirements, clean sand backfill following installation of the gas facility. Any required removing, trucking, storing, and disposing of material shall be deemed included in the unit price. The price shall also include the cost of providing temporary pavement restoration. Permanent pavement restoration shall be deemed included in this item, as required and as directed by the Resident Engineer.

SECTION 6.09a Trench Excavation and Backfill for New Gas Mains and Services (For Con Edison Work Only)

1. Description:

Under this section, the contractor shall furnish all labor, materials, equipment, insurance, permits and incidentals required to break/remove roadway and sidewalk pavement, excavate, backfill and restore gas trenches. The trench to be excavated shall be determined by the size of the gas facility to be installed. The work shall be performed in accordance with applicable specifications, and/or at the direction of the Resident Engineer in consultation with the facility operator.

2. Materials:

All materials used to excavate and prepare trenches shall be supplied by the Contractor and be approved by the facility operator in consultation with the Resident Engineer. Clean sand backfill material shall be used and shall conform to Con Edison specification EO-1181-rev.6, General Specification for Backfilling of Trench and Small Openings.

3. Method of Construction:

Excavation – The Contractor shall saw cut and/or break and remove existing roadway which may include but is not limited to, asphalt, concrete and cobblestone, utilizing approved equipment that leaves a neat straight joint line along the juncture with subsequently replaced pavement. Prior to starting the trenching operation, the contractor shall excavate the appropriate gas main tie-in pits at the extremities of the gas main sections to be replaced. Test pits shall be excavated to determine exact location of all tie-in pits and at appropriate intervals along proposed trench excavation to verify lane and clearances as shown on the contract plans. The tie-in pits shall be adequately protected by the contractor using wood fencing or steel traffic plates until such time when the facility operator has completed the tie-in work. The Contractor shall be permitted to excavate utilizing a combination of machine and hand excavation, as field conditions warrant, and as directed by the facility operator. The trench shall be adjusted so as to provide for a

nominal cover on the new gas facilities or as required based on field conditions, applicable specifications, or as directed by the facility operator in consultation with the Resident Engineer. The width of the trench shall be as directed by the facility operator in consultation of the Resident Engineer. The width and depth of the trench shall conform to Con Edison Gas Operations drawing 309495 rev. 4, Trench Excavation for Gas Mains Up to 350 PSIG, or as directed by the facility operator in consultation of the Resident Engineer. The bottom of the trench shall be graded smooth with a minimum cushion of 3 inches of clean sand and in conformance with applicable specification and be compacted, to minimize initial settlement and to avoid "point" support of new gas facilities. All stones projecting into the trench bottom shall be removed, and the voids backfilled before the new gas facilities are installed. Where streets are not to final grade, the cover shall be measured from the final grade, or the existing grade, whichever provides the deeper trench. Excavation in the vicinity of utilities and other structures shall be performed using hand tools. The contractor shall properly dispose of all materials excavated away from site. Size and location of excavation shall be as directed by the facility operator in consultation with the Resident Engineer. Trenches shall be excavated to a depth and size necessary to facilitate the installation of the new gas facility and in conformance with the applicable specification. All existing facilities that are encountered during trench excavating shall be protected in a manner suitable to the facility operator in consultation with the Resident Engineer. Tight sheeting shall be used, as required, based on field conditions and/or when the depth of excavation is equal to or greater than five feet. Skeleton type sheeting will not be permitted. The sheeting required shall be furnished and installed in full compliance with the State of New York and Federal Safety Code requirements and in compliance with applicable specifications and/or as directed by the facility operator in consultation with the Resident Engineer. Care shall be taken that no existing gas facilities or other structures are broken or damaged. Contractor shall excavate all material encountered necessary to facilitate the installation of the new gas facilities, and as directed by the facility operator. Care should be taken to avoid damage to existing utility facilities and structures, and to pavements and their foundations, and to avoid caving or sliding banks within the excavation.

Maintenance of Trench Excavation - Excavated trenches shall be maintained free of debris and kept dry by the contractor. In order to accomplish this, contractor shall, upon completion of excavation and placement of sheeting (as required and/or if depth is equal to or greater than five feet), furnish and install adequate steel plates, as directed by the facility operator in consultation with the Resident Engineer, and posting over the excavated trenches and shall temporarily remove all equipment debris and workers, and relocate barricades in order to open the full width of street to traffic during non-working hours, as required based on DOT requirements. Con Edison forces will perform all live gas main connections, dead gas main cut-outs, and/or service work associated with disconnecting and reconnecting from old to new gas main 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 facility operator in consultation with the Resident Engineer to facilitate the installation of the new gas facilities. When work is being performed and the excavations are not covered with steel plates, the Contractor shall provide complete and safe access to the trench as may be required, and shall provide construction barricades and maintain traffic at all times as shown or as directed by the facility operator in consultation with the Resident Engineer. The contractor has the responsibility to maintain and set to grade all Con Edison hardware during backfill and pavement restoration. Upon completion of installation of the new gas facility, the trench excavation shall be backfilled by the contractor in accordance with Contract requirements and all backfill material shall conform to contract specifications for such purpose.

Pavement and Sidewalk Restoration - After backfilling is completed, the contractor shall install temporary pavement consisting of six inches (6") thick asphaltic concrete mixture in roadway areas or a two inches (2") thick asphaltic concrete mixture in sidewalk areas in order to maintain existing pedestrian and vehicular traffic. This temporary pavement shall be maintained until permanent replacement as specified in contract. Permanent pavement restoration shall be as required by the appropriate contract specifications and as directed by the Resident Engineer.

4. Method of Measurement:

The quantity to be measured for payment shall be the number of cubic yards (C.Y.) of trench actually excavated, including roadway pavement, base and/or sidewalk concrete removed within the limits of the trench as directed by the Resident Engineer in consultation with the facility operator. The volume occupied

by existing pipes or other structures will be deducted from the total volume measured as shown on contract drawing(s) Title: EP-7 SECT. 6.09 GAS SPECIALTY CONTRACTOR WORK, or as encountered based on existing field conditions.

5. Price to Cover:

The unit price bid per cubic yard for excavation shall include the cost of all supervision, labor, material, equipment, insurance and incidentals necessary to complete excavation trenches, including backfill, compaction testing and restoration of trenches and tie-ins pits as specified or shown on the contract, plans. The bid price shall also include the cost of coordinating the sewer and water main work to be performed by the contractor with the gas installation work to be performed by others. The price shall also include, associated maintenance of traffic, and traffic plates and openings and closings of plates as may be required in order to provide access to the facility operator during the new gas facility installation, and installing, removing and maintaining tight sheeting that may be required, cut, break and remove various thickness of surface and base pavement, excavate by hand, furnish, place and compact, in compliance with DOT requirements, clean sand backfill following installation of the gas facility. Any required removing, trucking, storing, and disposing of material shall be deemed included in the unit price. The price shall also include the cost of providing temporary pavement restoration. Permanent pavement restoration shall be deemed included in this item, as required and as directed by the Resident Engineer.

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

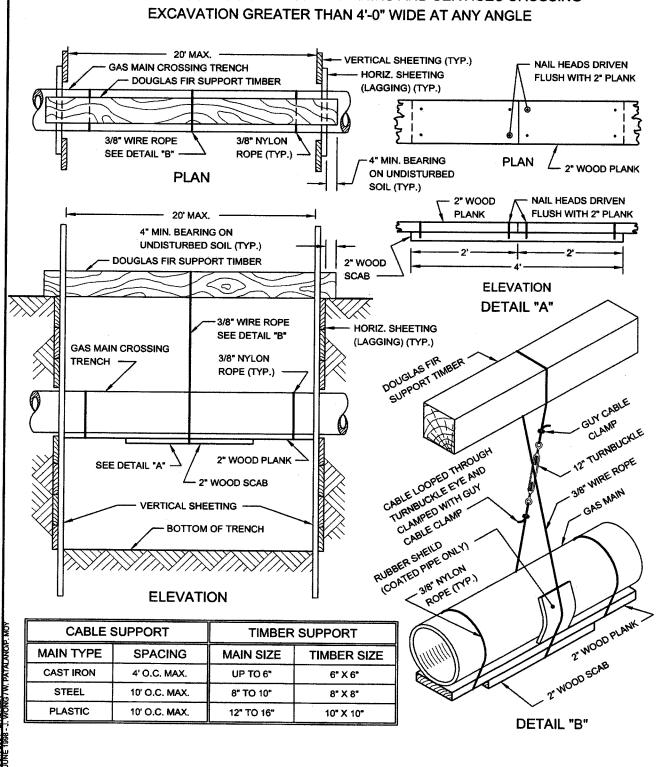
- \$524.00 per Service/and Visit

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



EP7-26A

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 STEEL TRAFFIC 8.5' TO 20' MAX. (SEE NOTE 1) PLATE (N.T.S.) ASTM A36 STEEL 7' BEARING ON UNDISTURBED GAS **BEAM W12 X 53** WELD MAIN SOIL (SEE DETAIL "A")(TYP.) SEE CHART HORIZ. 20,000 LB. SHEETING STEEL CABLE ASTM A36 LAGGING GAS MAIN (SEE DETAIL "B") STEEL BEAM (TYP.) -CROSSING W12 X 53 TRENCH 3" WOOD **PLANKS** VERTICAL SHEETING (TYP.) **DETAIL "A"** ASTM A38 STEEL 4' (TYP.) 3" WOOD EEAM W12 X 53 SCAB (TYP.) VERTICAL SHEETING (TYP.) BOTTOM OF TRENCH GUY CABLE CLAMP 12" TURNBUCKLE CABLE LOOPED THROUGH **ELEVATION** TURNBUCKLE EYE AND . GAS MAIN SUPPORTED O'AMPED WITH GIN **CABLE SUPPORT GAS MAIN** CABLECIAMP MAIN TYPE **SPACING CAST IRON** 4' O.C. MAX. STEEL CABLE 20,000 LB. STEEL 10' O.C. MAX. 3" WOOD PLANK (TYP.) 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. 3° WOOD PLANK (TYP.) 3" WOOD **SCAB** UNDERMINE A MAXIMUM OF 8.5 L.F. OF CAST IRON GAS MAIN AT A TIME. **SECTION A-A** (3) SET STEEL CABLE OVER 3" WOOD PROTECTIVE PLANKS AND PLACE AN ADDITIONAL 3" SCAB ON THE BOTTOM OF THE GAS MAIN.

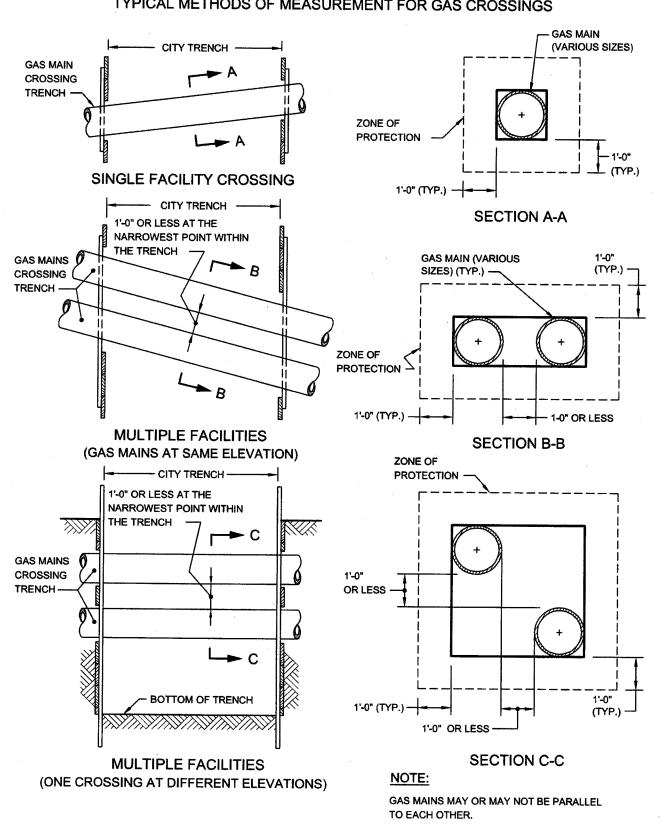
EP7-26B

DETAIL "B"

(4) ADJUST STEEL CABLE UNTIL DEAD WEIGHT OF THE UNDERMINED GAS MAIN HAS BEEN TAKEN UP BY THE OVERHEAD STEEL BEAM SUPPORT.

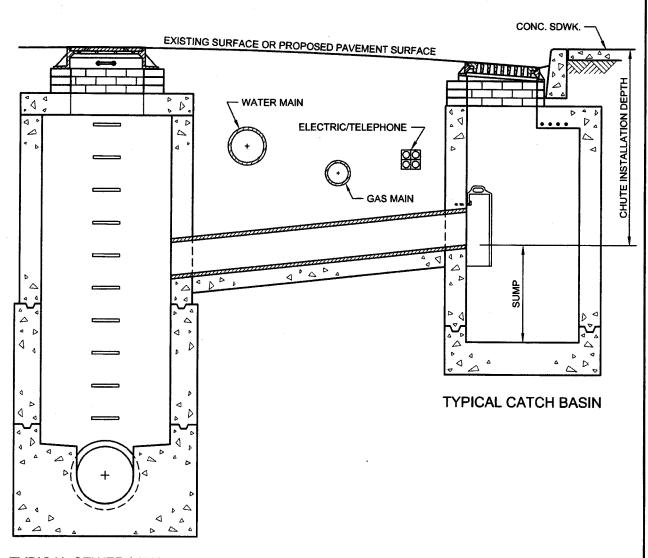
ALL SUPPORTS AND STEEL CABLES CAN BE REOMVED ONLY AFTER THE REQUIRED BACKFILL (AROUND AND BELOW GAS MAIN) HAS BEEN COMPACTED IN ACCORDANCE WITH NEW YORK CITY STANDARDS AND AT THE DIRECTIONS OF THE ENGINEER.

GAS COST SHARING WORK (SKETCH NO. 2) TYPICAL METHODS OF MEASUREMENT FOR GAS CROSSINGS



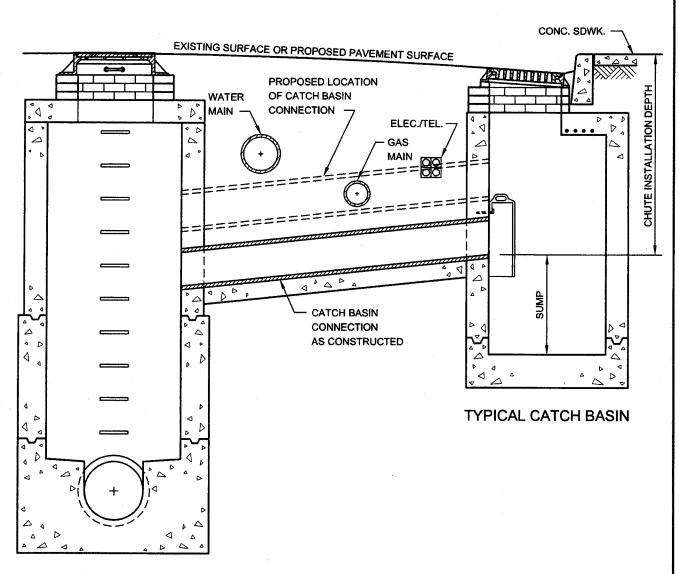
EP7-26C

GAS COST SHARING WORK (SKETCH NO. 3) UTILITY CROSSINGS DURING CATCH BASIN CHUTE CONNECTION PIPE INSTALLATION



TYPICAL SEWER MANHOLE

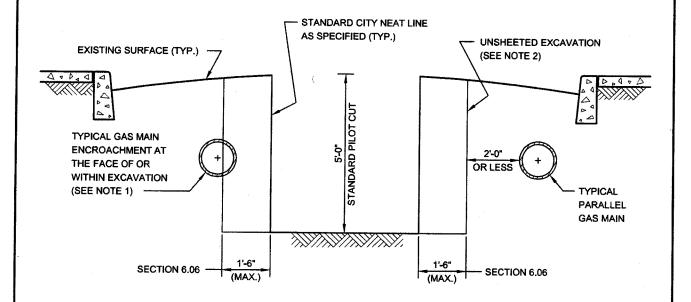
GAS COST SHARING WORK (SKETCH NO. 4) UTILITY CROSSINGS DURING CATCH BASIN CHUTE CONNECTION PIPE INSTALLATION (EXTRA DEPTH)



TYPICAL SEWER MANHOLE

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.

V - PRELIMINARY GAS WORK TO BE PERFORMED BY FACILITY OPERATOR

APPLICABLE TO ALL GAS DRAWINGS:

- ALL RELOCATION WORK SHOWN IN THIS SECTION 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 RELOCATION WORK, THE CONTRACTOR IS ADVISED TO
 CONTACT THE GAS COMPANY REPRESENTATIVE:

NATIONAL GRID 287 MASPETH AVENUE BROOKLYN, NY 11211 TEL.: 718-963-5506

(NO TEXT IN THIS AREA, TURN PAGE)

nationalgrid

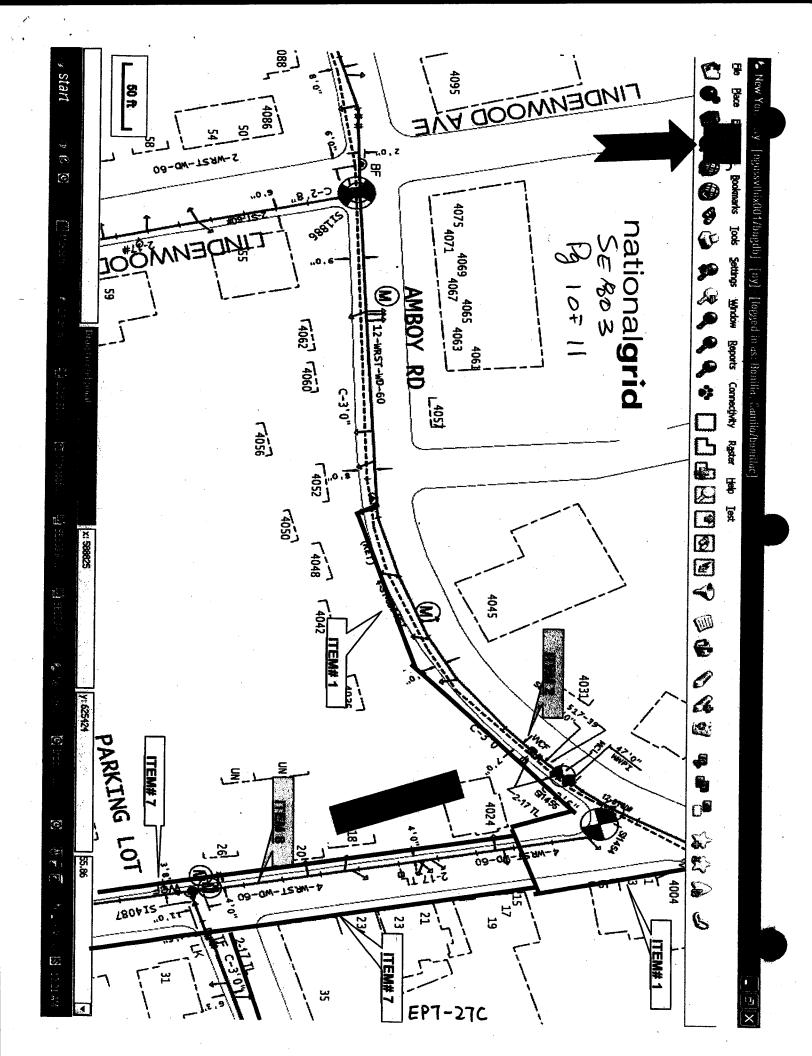
SE803 GAS MAIN INSTALLATION

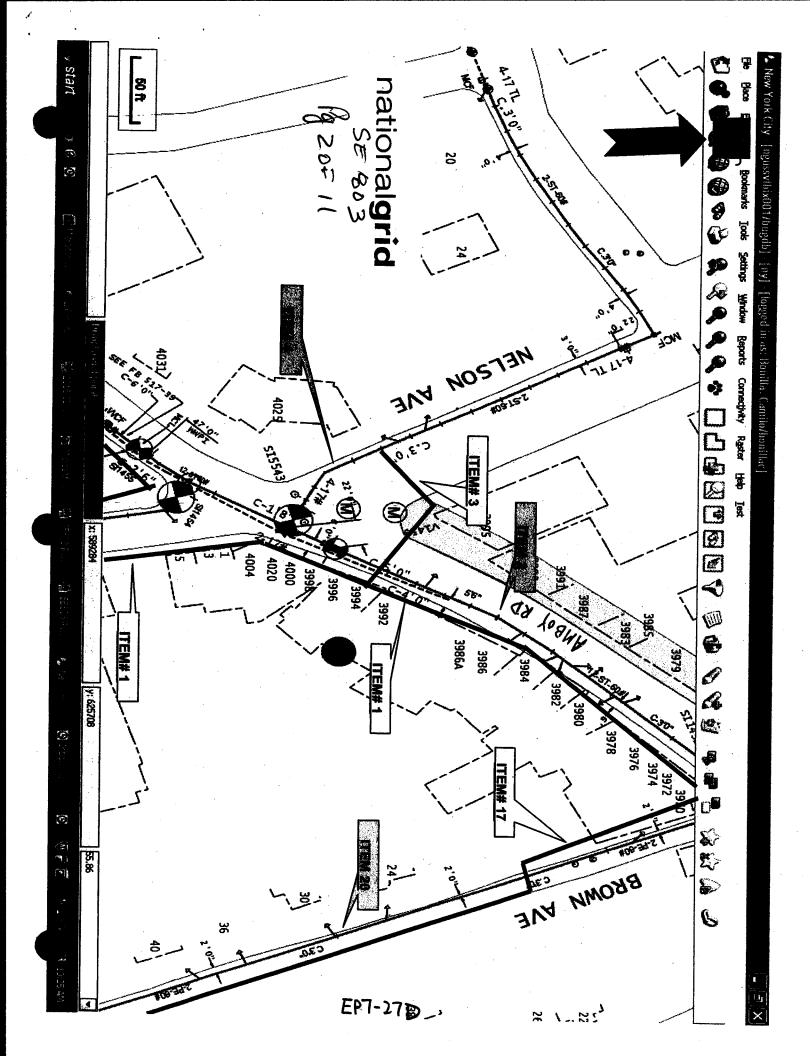
ITEM#	EM# ON OTREET SECOND GAS WAIN INSTALLATION						
1 ENH		1ST X-STREET	2ND X-STREET	SIZE/MAT'L	FOOTAGE	PRESSURE	REMB
	AMBOY RD	LINDENWOOD AVE	RAMBLE RD	12" WS	1,865'		
3	NELSON AVE	AMBOY RD	INTERSECTION	2" PL	115'	HP-60#	Y
5	GIFFORDS LA	AMBOY RD	INTERSECTION	6" PL		HP-60#	Y
			HILLCREST	O PL	100'	HP-60#	Y
7	NELSON AVE	AMBOY RD	AVE	4" PL	3 405	115 00 11	
•	HILLSIDE			<u> </u>	3,195	HP-60#	Y
9	TERR	AMBOY RD	DENT RD	2" PL	2,735'	. ID 00 "	
4.4	MONTICELLO		CLEVELAND		2,135	HP-60#	<u>Y</u>
11	TERR	NELSON AVE	AVE	2" PL	260'	UD co#	
13	BUCTIO DI	• • •			200	HP-60#	<u>Y</u>
13	RUSTIC PL	NELSON AVE	DEADEND	2" PL	135'	HP-60#	N.
15	RUSTIC PL	DEADELL	DEADEND			111-00#	N
- 10	NOSTIC PL	DEADEND WEST	EAST	2" PL	660'	HP-60#	Υ
17	BROWN AVE	AMBOVEDO	LAFONTAINE			111 -00#	
	CLEVELAND	AMBOY RD	PL	2" PL	775'	HP-60#	Υ
19	AVE	I AFONTAINE DI	5			111 0011	
	GRANDVIEW	LAFONTAINE PL	RUSTIC PL	2" PL	385'	HP-60#	N
21	TERR	NELSON AVE	HILLSIDE				
		NELSON AVE	TERR	2" PL	1,200'	HP-60#	Υ
23	LOCUST PL	NELSON AVE	PDOMALANCE				
		TILLOON AVE	BROWN AVE	2" PL	390'	HP-60#	Υ
25	LOCUST PL	BROWN AVE	HILLSIDE TERR	07 51			
	· ·		IERK	2" PL	125'	HP-60#	N
.27	CLOVIS RD	ADRIENNE PL	DEADEND	2" PL	4 4001	T	
			HILLCREST	_ Z PL	1,100'	HP-60#	Υ
29	NELSON AVE	AMBOY RD	AVE	6" PL	2.050		
			***	UFL	2,050'	HP-60#	Υ

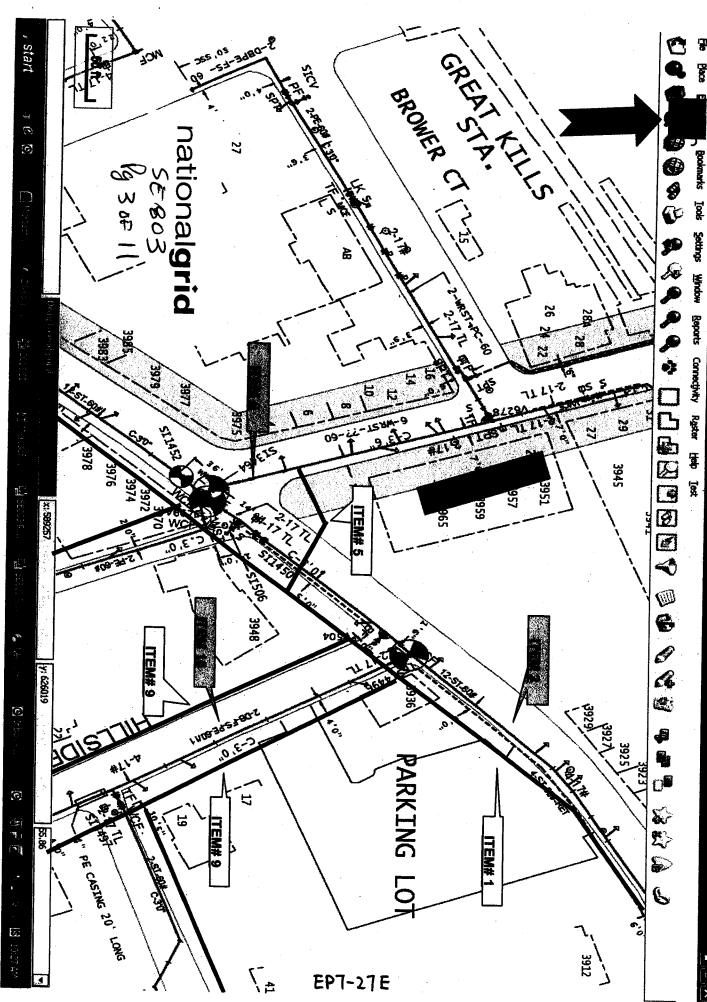
national**grid**

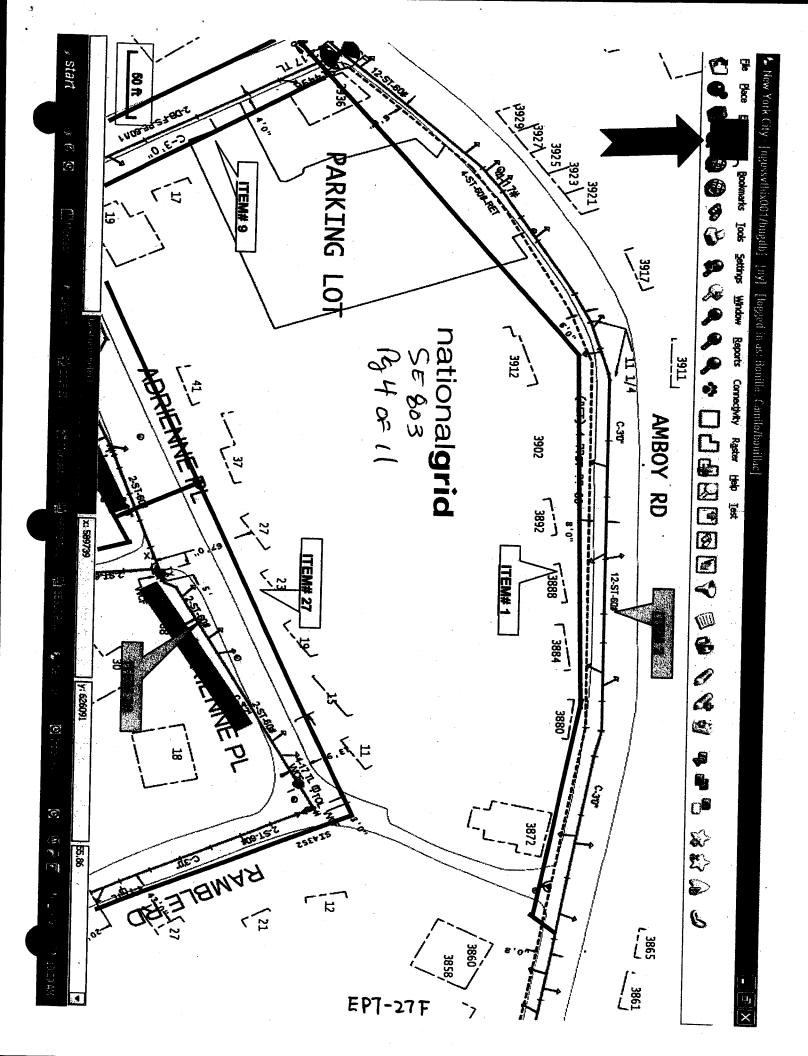
SE803 GAS MAIN RETIREMENT

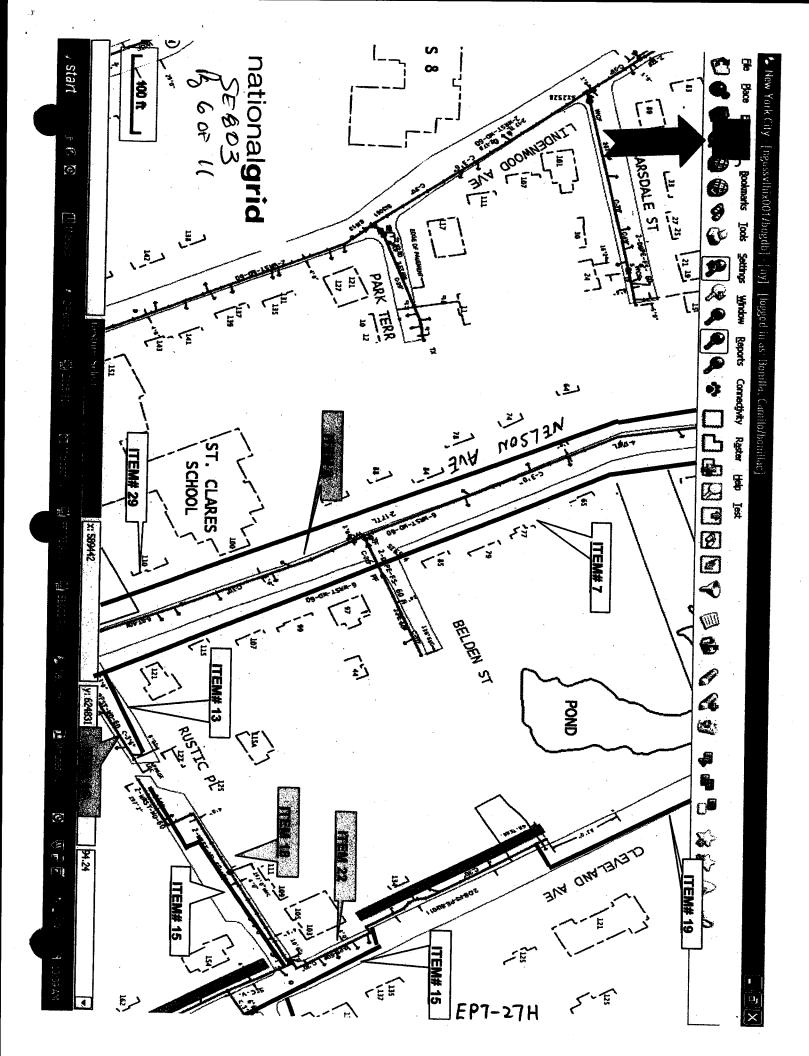
ITEM# ON STREET 1ST Y-STREET 2ND Y CTREET						•	
2	ON STREET	1ST X-STREET	2ND X-STREET	SIZE/MAT'L	FOOTAGE	PRESSURE	REMB
4	AMBOY RD	LINDENWOOD AVE	RAMBLE RD	12" WS	1,845'	HP-60#	Y
6	NELSON AVE	AMBOY RD	INTERSECTION	2" WS	85'	HP-60#	Ÿ
°	GIFFORDS LA	AMBOY RD	INTERSECTION	6" WS	45'	HP-60#	Y
8	NELSON AVE	AMBOY RD	HILLCREST AVE	6" WS	2,015		
10	HILLSIDE TERR	AMBOY RD	DENT RD	2" PL		HP-60#	Y
12	HILLSIDE TERR	RUSTIC PL	DENT RD		840'	HP-60#	Υ
14	MONTICELLO TERR	NELSON AVE	CLEVELAND AVE	2" WS	350'	HP-60#	Y
16	RUSTIC PL	NELSON AVE	DEADEND	2" WS 2" WS	255' 155'	HP-60#	Υ
18	RUSTIC PL	DEADEND WEST	DEADEND EAST	2" WS	435'	HP-60#	N
20	BROWN AVE	AMBOY RD	LAFONTAINE PL	2" PL	775'	HP-60# HP-60#	Y
	CLEVELAND AVE	RUSTIC PL	INTERSECTION	2" PL	120'	· ·	<u>Y</u>
24	GRANDVIEW TERR	NELSON AVE	HILLSIDE TERR	2" WS	1,115'	HP-60#	Y
26	LOCUST PL	NELSON AVE	BROWN AVE	2" PL	390'	HP-60#	Y
28	CLOVIS RD	ADRIENNE PL	DEADEND	2" PL	1,005'	HP-60#	Y

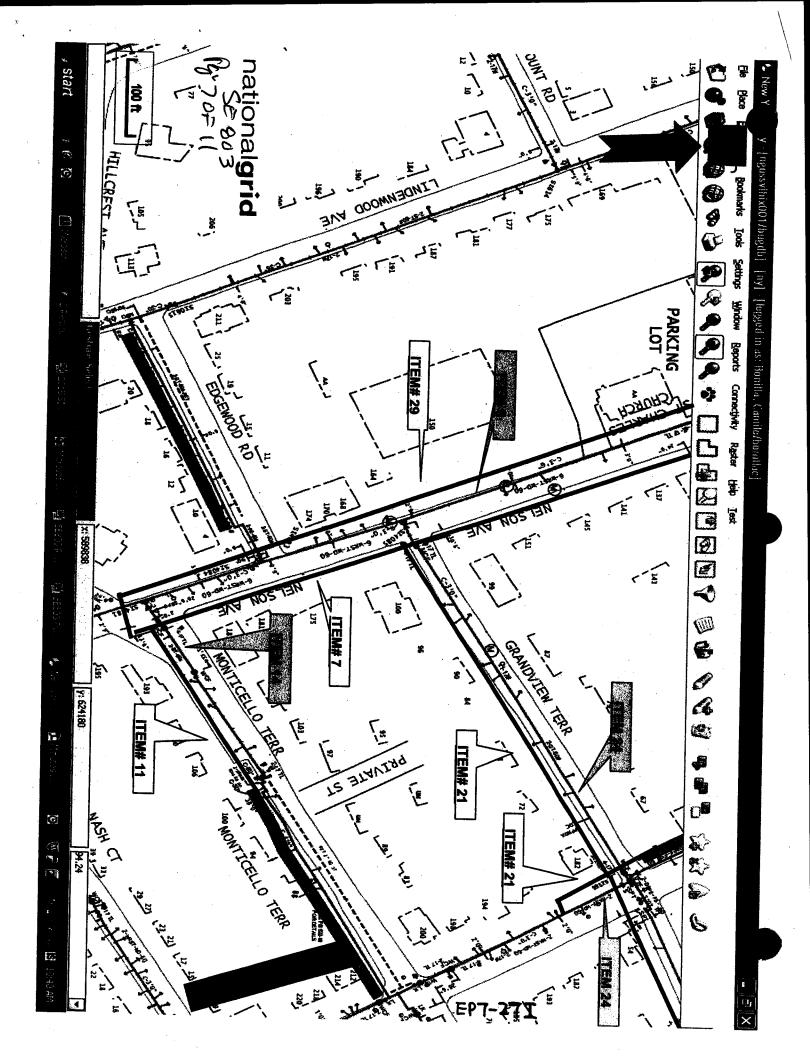


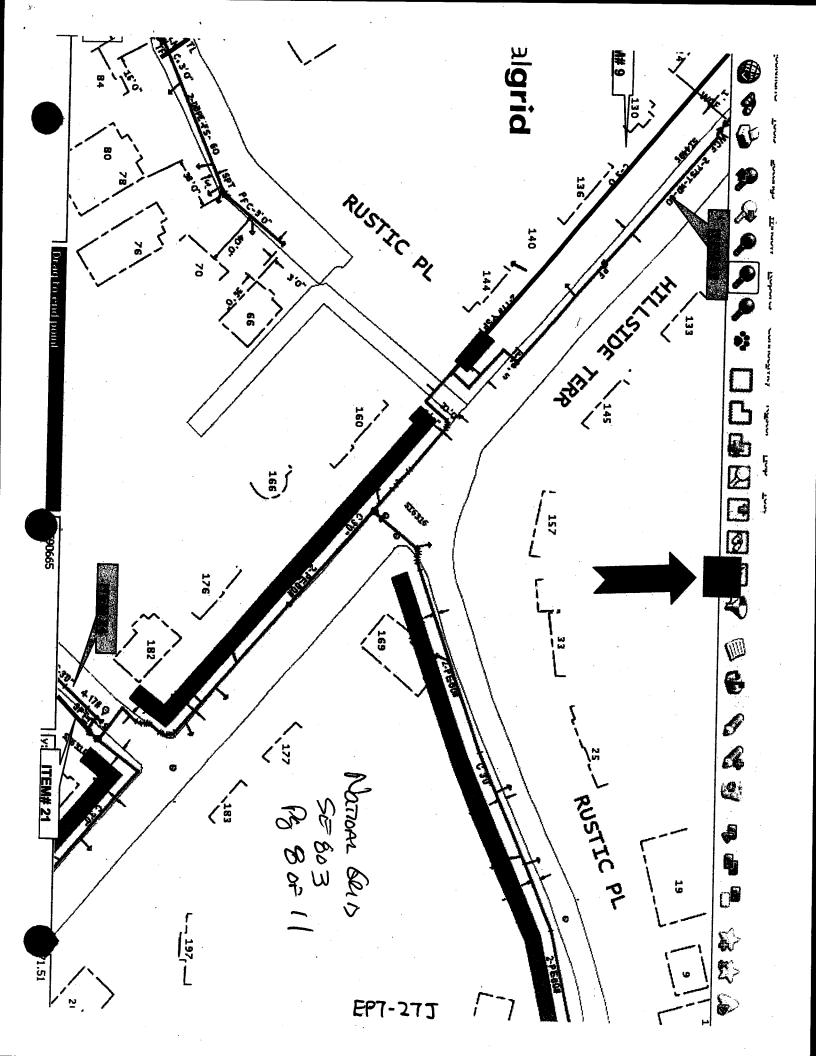


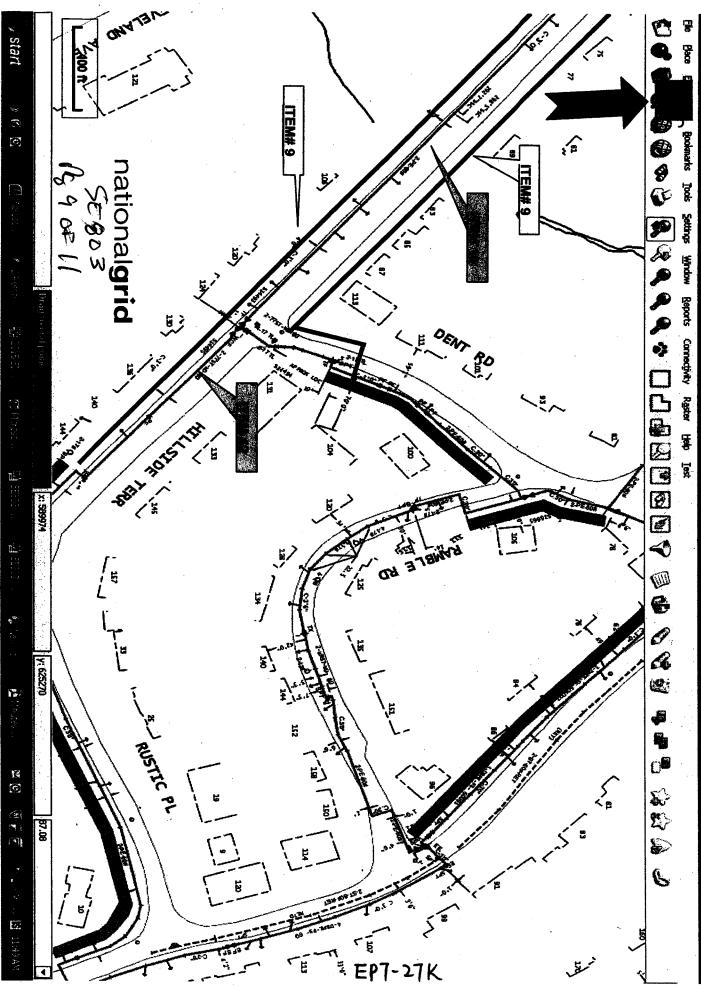


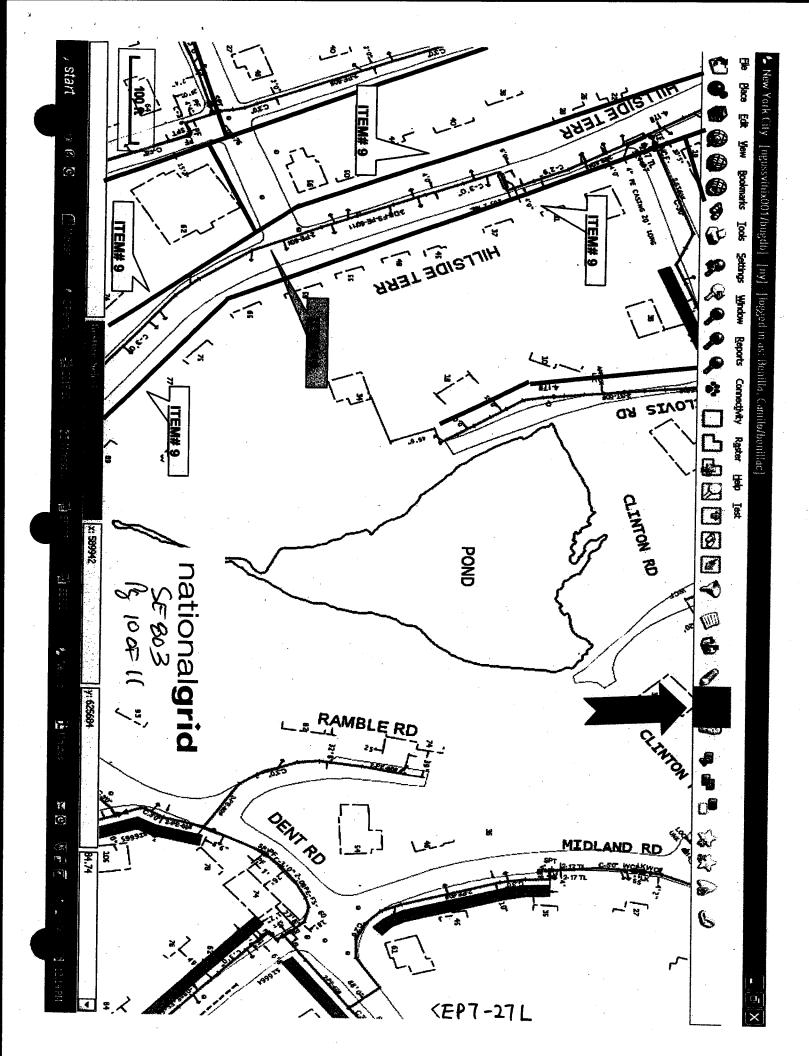


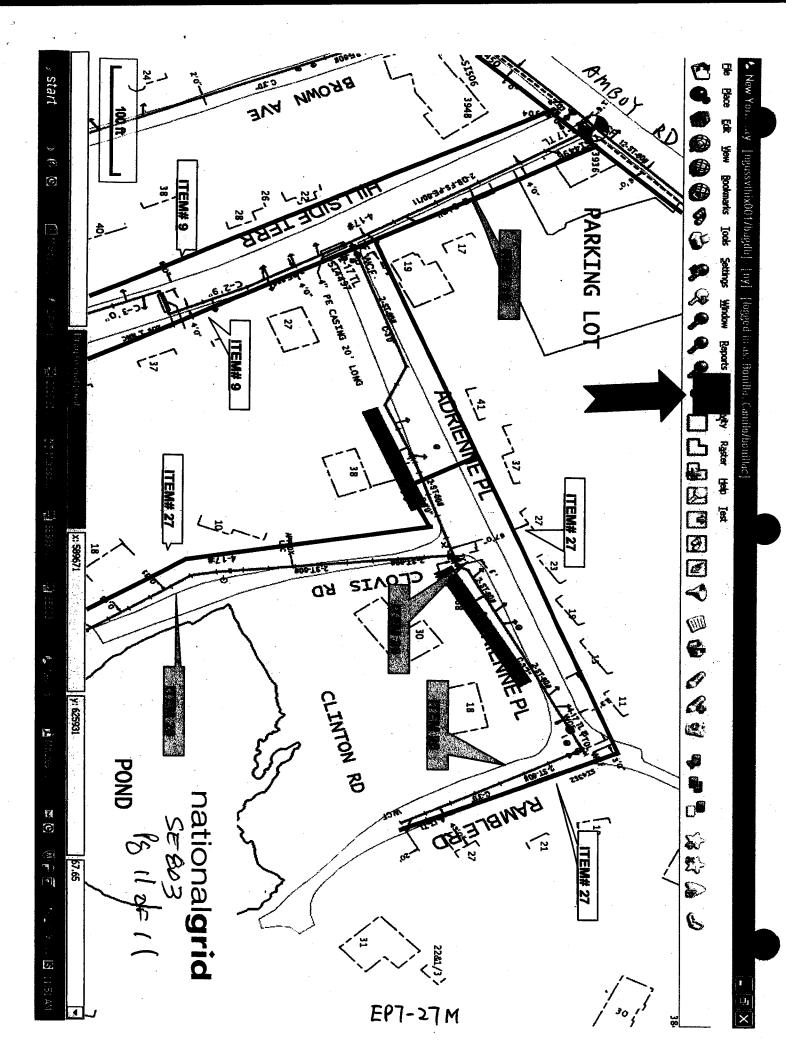












VI - LISTING OF APPROXIMATE LOCATIONS OF EP-7 BID ITEMS QUANTITIES.

(NO TEXT IN THIS AREA, TURN PAGE)

SCOPE OF WORK SUPPORT AND PROTECTION FOR CONTRACT SE-803

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.)

- 2 in Hillside Terr @ Amboy Rd.
- 1 in Grandview Terr @ Nelson Ave.
- 2 in Grandview Terr @ Cleveland Ave.
- 2 in Rustic Pl @ Cleveland Ave.
- 4 in Cleveland Ave bet La Fontaine Pl & Rustic Pl.
- 3 in Locust Pl @ Brown Ave.
- 1 in Adrienne Pl bet Clovis Rd & Hillside Terr.
- 1 in Amboy Rd @ Nelson Ave.
- 1 in Rustic Pl bet Cleveland Ave & Hillside Terr.
- 1 in Adrienne Pl @ Ramble Rd.
- 2 in Rustic Pl @ Hillside Terr.
- 3 in Adrienne Pl @ Hillside Terr.
- 2 in Belden St @ Nelson Ave.
- 2 in Locust Pl @ Nelson Ave.
- 1 in Nelson Ave bet Amboy Rd & Locust Pl.
- 1 in Rustic Pl bet Cleveland Ave & Dead end West.
- 2 in Amboy Rd @ Giffords La.
- 2 in Amboy Rd bet Lindenwood Ave & Seeley Lane.
- 2 in Grandview Terr @ Hillside Terr.
- 2 in Brown Ave bet Amboy Rd & Locust Pl.

6.01.2 - Gas Main Crossing Sewer 30" In Diameter. (Ea.)

- 1 in La Fontaine Pl @ Nelson Ave.
- 1 in Adrienne Pl @ Hillside Terr.
- 1 in Adrienne Pl bet Clovis Rd & Hillside Terr.

6.01.4C - Gas Main Crossing 45"W x 29"H F.T.R.C. Storm Sewer. (Ea.)

- 1 in Cleveland Ave bet La Fontaine Pl & Rustic Pl.
- 2 in Clinton Rd @ Hillside Terr.

SCOPE OF WORK SUPPORT AND PROTECTION FOR CONTRACT SE-803

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.)

65 in Various Locations as Required

6.01.9 - Gas Main Crossing Water Main Up To 20" In Diameter. (Ea.)

- 1 in Locust Pl @ Nelson Ave.
- 1 in Hillside Terr @ Amboy Rd.
- 1 in Amboy Rd @ Nelson Ave.
- 1 in Rustic Pl @ Nelson Ave.
- 1 in Adrienne Pl @ Hillside Terr.
- 1 in Adrienne Pl @ Ramble Rd.
- 2 in Grandview Terr @ Cleveland Ave.
- 2 in Rustic Pl @ Cleveland Ave.
- 1 in Adrienne Pl @ Amboy Rd.
- 2 in Locust Pl @ Brown Ave.
- 1 in Adrienne Pl bet Clovis Rd & Hillside Terr.
- 2 in Monticello Terr bet Nelson Ave & Cleveland Ave.
- 1 in Grandview Terr @ Hillside Terr.
- 1 in Dent Rd bet Hillside Terr & Ramble Rd.
- 1 in Locust Pl @ Hillside Terr.
- 1 in Brown Ave bet Amboy Rd & Locust Pl.
- 1 in Nelson Ave bet Amboy Rd & Locust Pl.
- 1 in Grandview Terr @ Nelson Ave.
- 1 in Monticello Terr @ Nelson Ave.
- 1 in Edgewood Ave @ Nelson Ave.
- 1 in Belden St @ Nelson Ave.
- 1 in Amboy Rd @ Lindenwood Ave.
- 2 in Cleveland Ave @ Monticello Terr.
- 2 in Cleveland Ave bet La Fontaine Pl & Rustic Pl.

SCOPE OF WORK SUPPORT AND PROTECTION FOR CONTRACT SE-803

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.

6.02 - Extra Excavation For The Installation Of Catch Basin Sewer Drain Pipes With Gas Interferences. (Ea.)

6 in Various Locations as Required.

6.03 - Removal Of Abandoned Gas Facilities. All Sizes. (L.F.)

6000 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)

1000 in Various Locations as Required.

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.)

20 in Various Locations as Required.

6.06 - Special Care Excavation And Backfill. (C.Y.)

1600 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 Section This section consists of Fifty (50) pages.

SECTION U (VERSION 2.0)

NOTICE

THE PAGES CONTAINED IN THIS SECTION U VERSION 2.0 (U-PAGES) REPRESENT ADDITIONAL CONTRACT REQUIREMENTS APPLYING TO WORK PERFORMED IN THE PRESENCE OF PRIVATELY OWNED UTILITY FACILITITIES.

SECTION U VERSION 2.0

DATED: March 9, 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 U-3 through U-13)
 - B. Schedule U-1 (Page U-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 U-15 (as per the Private Utilities reference document for SECTION U called "CET SPECIFICATIONS AND SKETCHES", dated November 2010).
- 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 Amendment, 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 August 1, 2015; 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.

 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 Divisi	on	•
Department of Design and Construction		
30-30 Thomson Avenue		
Long Island City, NY 11101		
	• •	
RE: <u>City Work Performed in the I</u>	Presence of Private I Itility Po	ilitia.
Project No:	resence of thrace ounty Fac	anues
		
Dear (Name):		
This letter is to certify that	1	
of the attached "Section U: Additional contr	has requested the	
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By: Authorized Company Representative		
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CERTIFIED AS TO FORM		
AND LEGAL AUTHORITY:		
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718-888-4261

SCHEDULE U-1

SCHEDULE U-1

TIME WARNER

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

JOHN PIAZZA

SECTION U-3

(NO TEXT IN THIS SECTION)

End of Section
This Section consists of sixteen (16) pages.

NO TEXT ON THIS PAGE

SPECIFICATIONS FOR HANDLING, TRANSPORTATION AND DISPOSAL OF NONHAZARDOUS AND POTENTIALLY HAZARDOUS CONTAMINATED MATERIALS

NOTICE

THE PAGES CONTAINED IN THIS SECTION ARE ISSUED FOR THE PURPOSE OF SPECIFYING THE REQUIREMENTS OF THE CONTRACT DOCUMENTS AND HEREBY MADE PART OF SAID CONTRACT DOCUMENTS.

(NO TEXT ON THIS PAGE)

SPECIFICATIONS FOR HANDLING, TRANSPORTATION AND DISPOSAL OF NON-HAZARDOUS AND POTENTIALLY HAZARDOUS CONTAMINATED MATERIALS

Sanitary & Storm Sewer in Ramble Road

Borough of Staten Island

DDC Project No. SE803

Prepared By:



30-30 Thomson Avenue, 3rd Floor Long Island City, New York 11101

Date: 12/18/2015

Table of Contents

ITEM 8.01 C1	HANDLING, TRANSPORTING AND DISPOSAL OF NON-HAZARDOUS
	CONTAMINATED SOILS
ITEM 8.01 C2	SAMPLING AND TESTING OF CONTAMINATED/POTENTIALLY
	HAZARDOUS SOILS FOR DISPOSAL PARAMETERS 8
ITEM 8.01 H	HANDLING, TRANSPORTING AND DISPOSAL OF HAZARDOUS SOILS
ITEM 8.01 S	HEALTH AND SAFETY
ITEM 8.01 W1	REMOVAL, TREATMENT AND DISCHARGE/DISPOSAL OF
	CONTAMINATED WATER21
ITEM 8.01 W2	SAMPLING AND TESTING OF CONTAMINATED WATER 28
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 onsite 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 Management, Office of Environmental and Geotechnical Services (OEGS) 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 Management, OEGS for review, a Material Handling Plan (MHP). The MHP must be approved by the Program Management, OEGS, prior to the Contractor's commencement of work. The MHP shall, at a minimum, consist of:
 - 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.
- 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 Management, OEGS.

8.01 C1.3 CONSTRUCTION DETAILS

A. Material Handling

- 1. Immediately after excavation of non-hazardous contaminated soil the Contractor shall:
 - 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 Management, OEGS 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 Management, OEGS 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 Management, OEGS, 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:

ITEM NUMBER	ITEM	PAYMENT UNIT
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. <u>Description</u>

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 Management, Office of Environmental and Geotechnical Services (OEGS) 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 Management, OEGS 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/	Set
	Potentially Hazardous Soil for Disposal Parameters	

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 Management, Office of Environmental and Geotechnical Services (OEGS).

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. <u>Material Handling Plan</u>: Within forty-five (45) calendar days after award of Contract, the Contractor shall submit to the Program Management, OEGS for review, a Material Handling Plan (MHP). The MHP must be approved by the Program Management, OEGS, 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 Management, OEGS will review and sign the manifest as the generator.
- 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 Management, OEGS.
- 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:

ITEM NUMBER	ITEM	PAYMENT UNIT
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 Management, Office of Environmental and Geotechnical Services (OEGS).

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 Management, OEGS 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 Management, OEGS for review and comment. The Contractor shall make all necessary revisions required by Program Management, OEGS and resubmit the HASP to the Program Management, OEGS for acceptance. Start-up work for the project will not be permitted until written acceptance has been issued by the Program Management, OEGS.
- 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

- 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:

ITEM NUMBER	ITEM	PAYMENT UNIT
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 Management, Office of Environmental and Geotechnical Services (OEGS) 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 Management, OEGS for review, a Water Handling Plan (WHP). The WHP must be approved by the Program Management, OEGS, 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.

- 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

- lading, 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 Management, OEGS, 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:

ITEM NUMBER	<u>ITEM</u>	PAYMENT UNIT
8.01 W1	Removal, Treatment and Disposal/Discharge of	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:

ITEM NUMBER ITEM

PAYMENT UNIT

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!	Daily Limit	Units	Sample Type	Monthly Limit
Non-polar material ²	50	mg/l	Instantaneous	
pН	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	eyer saler liber
Copper	5	mg/l	Instantaneous	
Lead	2	mg/l	Instantaneous	
Mercury	0.05	mg/l	Instantaneous	uin der des
Nickel	3	mg/l	Instantaneous	
Zinc	5	mg/l	Instantaneous	
Benzene	134	ppb	Instantaneous	57
Carbontetrachloride			Composite	
Chloroform			Composite	
1,4 Dichlorobenzene			Composite	40 Hr 0-
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				

- 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
- 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.
- 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).
- For discharge ≥ 10,000 gpd, the TSS limit is 350 mg/l. For discharge < 10,000gpd, the limit is determined on a case by case basis.
- Analysis for Carbonaceous Biochemical Oxygen Demand (CBOD), Chloride, Total Solids and Total Nitrogen are required if proposed discharge ≥ 10,000 gpd.

ATTACHMENT 2

Applicable Regulations

Applicable regulations include, but are not limited to:

- 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 Ramble Road

Staten Island, New York

DDC PROJECT NO. SE803
WORK ORDER NO. 7979-ATC-7513
CONTRACT REGISTRATION NO. 20090016802

Prepared for:



Bureau of Environmental and Geotechnical Services
30-30 Thomson Avenue, Fifth Floor

Long Island City, New York 11101

Prepared by:



ATC Associates Inc.

104 East 25th Street, 10th Floor
New York, NY 10010

PROJECT NO. 015.38500.0125

March 16, 2012



TABLE OF CONTENTS

EXE	CUTIVE SUMMARY	ES-1
1.0	INTRODUCTION	
1.1	SUMMARY OF PREVIOUS ENVIRONMENTAL INVESTIGATIONS	
1.2	SCOPE OF WORK	
2.0	CORRIDOR INFORMATION	
2.1	CORRIDOR LOCATION, DESCRIPTION AND USE	
2.2	DESCRIPTION OF SURROUNDING PROPERTIES	
2.3	CORRIDOR AND REGIONAL TOPOGRAPHIC SETTING	
2.4	CORRIDOR AND REGIONAL GEOLOGY	
2.5	CORRIDOR AND REGIONAL HYDROGEOLOGY	
3.0	CORRIDOR EVALUATION	
3.1	SOIL QUALITY INVESTIGATION	
3.2	GROUNDWATER QUALITY INVESTIGATION	
3.3	LABORATORY ANALYSES	
3.4	DATA EVALUATION	
4.0	FINDINGS	
4.1	FIELD SCREENING	
4.2	SOIL AND GROUNDWATER LABORATORY ANALYTICAL RESULTS	
	4.2.1 Volatile Organic Compounds (VOCs) in Soil	
	4.2.2 Semi-Volatile Organic Compounds (SVOCs) in Soil	1
	4.2.3 Target Analyte List Metals (TAL Metals) in Soil	
	4.2.4 Pesticides in Soil	12
	4.2.5 PCBs in Soil	1
	4.2.6 Waste Classification of Soil	
	4.2.7 Analysis of NYCDEP Parameters in Groundwater	
5.0	CONCLUSIONS AND RECOMMENDATIONS	13
6.0	STATEMENT OF LIMITATIONS	1



New York City Department of Design and Construction Final Phase II Subsurface Corridor Investigation Report Storm, Sanitary Sewer, and Water Mains in Ramble Road – Staten Island, NY

<u>Tables</u>	1 2 3 4 5 6 7	Summary of Environmental Boring Data Summary of TCL VOCs Detected in Soil Summary of TCL SVOCs Analytical Results in Soil Summary of TAL Metals Detected in Soil Summary of Pesticides Detected in Soil Summary of PCBs Detected in Soil Summary of Waste Characterization Sample Analysis of Soil
	8	Summary of NYCDEP Parameters Analyzed in Groundwater Sample
<u>Figures</u>	1 2	Topographic Corridor Location Map Sample Location Plan
Appendices	A B C	Boring Location Sketches Geologic Boring Logs Laboratory Analytical Results



EXECUTIVE SUMMARY

On behalf of the New York City Department of Design and Construction (NYCDDC), ATC Associates, Inc. (ATC) conducted a Phase II Subsurface Corridor Investigation (Phase II SCI) of the following 15 street segments and two (2) easements in the Great Kills neighborhood of Staten Island, New York (hereinafter referred to as the Corridor):

- 1. Amboy Road, between Acacia Avenue and Adrienne Place;
- 2. Acacia Avenue, between Amboy Road and dead end;
- 3. Easement between Brown Avenue and Hillside Terrace;
- 4. Nelson Avenue between Amboy Road and Monticello Terrace;
- 5. Locust Place, between Nelson Avenue and Hillside Terrace;
- 6. Cleveland Avenue, between Locust Place and Monticello Terrace;
- 7. Monticello Terrace, between Nelson Avenue and Cleveland Avenue;
- 8. Grandview Terrace, between Nelson Avenue and Hillside Terrace;
- 9. Rustic Place, between Nelson Avenue and Hillside Terrace;
- 10. Brown Avenue, between Amboy Road and Locust Place:
- 11. Hillside Terrace between Amboy Road and Grandview Terrace;
- 12. Proposed easement between JP-3 and Jack's Pond;
- 13. Ramble Road, between Adrienne Place and Dent Road,
- 14. Adrienne Place, between Hillside Terrace and Amboy Road;
- 15. Clovis Road, between Adrienne Place and dead end:
- 16. Dent Road between Hillside Terrace and Ramble Road; and
- 17. Belden Street, between Nelson Avenue and dead end.

Infrastructure improvements consisting of excavation for the installation of sanitary sewers, storm sewers, and/or water mains is proposed for the Corridor.

ATC Associates Inc. prepared a Phase I Corridor Assessment Report (Phase I CAR) dated July 8, 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 ATC Phase I CAR identified no Final "High" risk sites and 14 Final "Moderate" risk sites in the Corridor. In addition, the presence of historic (urban) fill material within the Corridor should be anticipated due to its location within urban New York City and is considered to represent a potential environmental issue. 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 consisted of the following components:

- The advancement of 12 borings (SB-1 through SB-12) to a depth of 20 feet below grade (ftbg) or refusal and the field screening of soil samples, including photo-ionization detector (PID) readings and visual and olfactory indicators of contamination (staining, odors);
- The collection of eight (8) soil samples (SB-2, SB-3, SB-5, SB-7, SB-9, SB-10, SB-11, and SB-12), which were analyzed for the following parameters: (1) United States Environmental Protection Agency (EPA) Target Compound List (TCL) volatile organic compounds (VOCs); (2) TCL Base Neutral/Acid (BN/A) extractable semi-volatile organic compounds (SVOCs); (3) Target Analyte List (TAL) metals; (4) TCL pesticides; and (5) TCL polychlorinated biphenyls (PCBs);
- The collection of three (3) area composite waste characterization soil samples (WC-1, WC-2, and WC-3), which were analyzed for: (1) the EPA Full Toxicity Characteristics Leaching Procedure

ATC Associates, Inc.
DDC CAPIS ID No. SE803

FS-1



(TCLP) parameters; (2) the Resource Conservation and Recovery Act (RCRA) characteristics (ignitability, reactivity and corrosivity); and (3) Total Petroleum Hydrocarbons Diesel Range Organics/Gasoline Range Organics (TPHC DRO/GRO);

- The installation of three (3) temporary well points (TWPs) and the collection of three (3) groundwater samples from the TWPs installed in borings SB-5, SB-9, and SB-12 (groundwater was encountered at 12 ftbg in boring SB-5, 11 ftbg in boring SB-9, and 8 ftbg in SB-12), which were analyzed for the parameters published by the New York City Department of Environmental Protection (NYCDEP) as Limitations for Effluent to Sanitary or Combined Sewers (NYCDEP Sewer Discharge Criteria). A fourth TWP was installed in boring SB-2; however, it was determined that a perched water table was encountered and a water sample could not be collected due to poor recharge.; 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 the subsurface soil and groundwater quality, the laboratory analytical results for soils were compared with the regulatory standards identified in: (1) New York State Department of Environmental Conservation (NYSDEC) Policy CP-51/Soil Cleanup Guidance Supplemental Soil Cleanup Objectives (SSCOs); (2) NYSDEC Subpart 375-6: Remedial Program Unrestricted and Restricted-Residential Use Soil Cleanup Objectives (SCOs); and (3) the Toxicity Characteristic Regulatory Levels for Hazardous Waste published in RCRA and NYSDEC Part 371. In order to evaluate the groundwater quality, the laboratory analytical results for the groundwater sample were compared to the NYCDEP Storm Sewer Discharge Criteria.

The subsurface soils encountered during this Phase II SCI consisted of varying gradations of reddish brown sand, brown sand, reddish brown silty sand, grey clay, reddish brown clay, and gravel and cobbles. Man-made materials (brick, concrete, cinders, ash, glass, etc.) and/or wood fragments, which are indicative of urban fill, were not encountered. However, the presence of gravel and cobbles in the first six (6) feet in borings SB-1, SB-2, SB-3, SB-4, SB-6, SB-7, SB-8, SB-9, SB-10, SB-11, and SB-12 is indicative of fill material. Bedrock was not encountered during the Phase II SCI. Refusal was encountered in boring SB-1 at 16 ftbg and in boring SB-3 at 16.5 ftbg.

Field screening did not identify petroleum-impacted soils throughout the Corridor. The review of laboratory analytical results did not suggest the presence of petroleum-impacted soils throughout the Corridor. PID readings were not detected in any of the borings.

Concentrations of SVOCs were not detected in any of the soil samples collected.

Acetone was detected at a concentration in grab soil samples SB-5 and SB-11, which are above the Unrestricted Use SCO and below the Restricted-Residential Use SCO. Acetone is commonly used by laboratories, and its detection is considered to be attributed to laboratory cross-contamination and is not considered to be representative of subsurface concentrations.

Subsurface soils contain elevated concentrations of iron above the Restricted-Residential SSCO and nickel above the Unrestricted Use SCO in each of the soil samples collected. The presence of metals is attributable to natural (background) levels and/or the presence of fill materials.



One (1) pesticide (4'4'-DDT) and one (1) PCB (Aroclor-1254) were detected in soil samples below the Unrestricted Use SCOs. The presence of 4'4'-DDT and aroclor-1254 at low levels may be attributed to the presence of fill materials.

DRO and GRO were detected in the area composite waste characterization samples collected. There are no NYSDEC regulatory standards for DRO and GRO. The presence of DRO and GRO may be attributed to the detection of organic compounds that are within the diesel and gasoline ranges. The presence of DRO and GRO may be attributed to the presence of fill materials.

The subsurface soils did not exhibit hazardous waste characteristics.

Three (3) groundwater samples (SB-5 WS, SB-9 WS, SB-12 WS) collected contained concentrations of Total Suspended Solids (TSS) and nickel that exceeded the NYCDEP Sewer Discharge Criteria. The presence of elevated levels of TSS and nickel in the groundwater is attributed to the fact that the unfiltered sample was collected and contained suspended sediments. However, the groundwater samples collected from TWPs are considered to be more representative of conditions to be encountered during construction activities.

Conclusions

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:

- Field screening did not identify petroleum-impacted soils throughout the Corridor. The review of laboratory analytical results did not suggest the presence of petroleum-impacted soils throughout the Corridor. PID readings were not detected in any of the borings. Fill material was encountered from grade to approximately six (6) ftbg in 11 of the 12 borings advanced.
- Subsurface soils contain elevated concentrations of iron above the Restricted-Residential SSCO and nickel above the Unrestricted Use SCO in each of the soil samples collected. The presence of metals is attributable to natural (background) levels and/or the presence of fill materials.
- The presence of 4'4'-DDT and aroclor-1254 at low levels may be attributed to the presence of fill materials.
- DRO and GRO were detected in the waste characterization samples collected. There are no NYSDEC regulatory standards for DRO and GRO. The presence of DRO and GRO may be attributed to the detection of organic compounds that are within the diesel and gasoline ranges, but not necessarily diesel and gasoline constituents. In addition, the presence of DRO and GRO may be attributed to the presence of fill materials.
- The subsurface soils did not exhibit hazardous waste characteristics.
- Three (3) groundwater samples (SB-5 WS, SB-9 WS, SB-12 WS) collected contained concentrations of TSS and nickel that exceeded the NYCDEP Sewer Discharge Criteria. The presence of elevated levels of TSS and nickel in the groundwater is attributed to the fact that the unfiltered sample was collected with suspended sediments.

ATC Associates, Inc.
DDC CAPIS ID No. SE803

FS-3



Based on the results of the field investigation and laboratory analytical results, ATC recommends the following:

- The Contract documents should identify provisions for managing, handling, transporting and disposing of non-hazardous contaminated soil for metals, including iron and nickel. The Contractor should be required to submit a Material Handling Plan, which should identify the specific protocol and procedures that will be employed to manage the waste in accordance with applicable regulations.
- Due to the presence of metals in the investigated sites, 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) 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 the New York State Department of Health (NYSDOH) to ensure proper applicability.
- Dewatering may be necessary during construction activities. Based on the groundwater analytical
 results, groundwater may require pre-treatment for TSS and nickel prior to discharge to sanitary or
 combined sewers. The contractor may be required to obtain a NYCDEP sewer discharge permit if
 dewatering to the sanitary or combined sewer is necessary.
- If discharge into storm sewers is required during dewatering, it may be done under the appropriate NYSDEC State Pollutant Discharge Elimination System (SPDES) permit. Additional sampling and laboratory analysis may be required to satisfy NYSDEC requirements prior to discharge into storm sewers.
- 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 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), ATC Associates, Inc. (ATC) conducted a Phase II Subsurface Corridor Investigation (Phase II SCI) of the following 15 street segments and two (2) easements in the Great Kills neighborhood of Staten Island, New York (hereinafter referred to as the Corridor):

- 1. Amboy Road, between Acacia Avenue and Adrienne Place;
- 2. Acacia Avenue, between Amboy Road and dead end;
- 3. Easement between Brown Avenue and Hillside Terrace;
- 4. Nelson Avenue between Amboy Road and Monticello Terrace;
- 5. Locust Place, between Nelson Avenue and Hillside Terrace;
- 6. Cleveland Avenue, between Locust Place and Monticello Terrace;
- 7. Monticello Terrace, between Nelson Avenue and Cleveland Avenue:
- 8. Grandview Terrace, between Nelson Avenue and Hillside Terrace;
- 9. Rustic Place, between Nelson Avenue and Hillside Terrace;
- 10. Brown Avenue, between Amboy Road and Locust Place:
- 11. Hillside Terrace between Amboy Road and Grandview Terrace;
- 12. Proposed easement between JP-3 and Jack's Pond;
- 13. Ramble Road, between Adrienne Place and Dent Road,
- 14. Adrienne Place, between Hillside Terrace and Amboy Road;
- 15. Clovis Road, between Adrienne Place and dead end;
- 16. Dent Road between Hillside Terrace and Ramble Road; and
- 17. Belden Street, between Nelson Avenue and dead end.

The Corridor is approximately 13,770 linear feet (LF) long (2.6 mile). Infrastructure improvements consisting of excavation for the installation of sanitary sewers, storm sewers, and/or water mains is proposed for the Corridor. The Phase II SCI was conducted to determine if the Corridor's environmental condition might impact proposed construction activities.

1.1 Summary of Previous Environmental Investigations

ATC Associates Inc. (ATC) prepared a Phase I Corridor Assessment Report (Phase I CAR) dated June 29, 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 ATC Phase I CAR identified no Final "High" risk sites and 14 Final "Moderate" risk sites in the Corridor and recommended advancing a total of 12 borings, installing temporary well points and collecting soil and groundwater samples to assess potential impacts. In addition, the presence of historic (urban) fill material within the Corridor should be anticipated due to its location within urban New York City and is considered to represent a potential environmental issue. The final "Moderate" risk sites identified in the ATC Phase I CAR is listed below:

MODERATE RISK SITES:

- 1. 4088 Amboy Road
- 2. Church, 4095 Amboy Road
- 3. 4157 Amboy Road A-E
- 4. St. Clare's Church, 110 Nelson Avenue
- 5. 88 Nelson Avenue

ATC Associates, Inc. DDC CAPIS ID No. SE803

March 16, 2012 Work Order Letter No. 7979-ATC-7513



- 6. 145 Nelson
- 7. Nelson Cleaners, 2A Nelson Avenue
- 8. 225 Cleveland Avenue / I.S. 24 Annex / I.S. Myra S. Barnes, 225 Cleveland Avenue
- 9. 3925 Amboy Road
- 10. 3939-3943 Amboy Road
- 11. 3931 Amboy Road
- 12. 3948-3952 Amboy Road
- 13. 3997 Amboy Road
- 14. 3987 Amboy Road

In addition to the eight (8) soil borings advanced to assess the 14 "Moderate" risk sites, ATC proposed four (4) additional soil borings to assess the potential environmental issue with respect to urban fill material.

1.2 Scope of Work

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 Warren George of Jersey City, NJ. Oversight of drilling activities was performed by ATC. Laboratory analyses were provided by CHEMTECH Consulting Group (CHEMTECH), of Mountainside, New Jersey, a New York State Department of Health (NYSDOH)-approved laboratory (No. 11376). The field investigation was conducted on February 1, 2, 3, 6, 7, 8, 9, and 10, 2012, and consisted of the following components.

- The advancement of 12 borings (SB-1 through SB-12) to a depth of 20 feet below grade (ftbg) or refusal. The borings were advanced using a direct push drill rig. Prior to direct push advancement, the borings were cleared to a depth of six (6) feet using a vactron and post hole digger. Soil samples were collected using 4-foot long, 1-inch diameter Macro Core stainless steel samplers equipped with polyvinyl chloride (PVC) liners.
- Field screening, classification and identification of soils from the ground surface to the bottom of each boring. Soil samples were visually identified and classified in the field using the Burmister-based soil classification system. Field screening consisted of visual and olfactory indicators of contamination (staining, odors), as well as screening with a photo-ionization detector (PID).
- The collection of one (1) composite sample and one (1) grab sample from eight (8) of the 12 borings ("Moderate" risk soil borings SB-2, SB-3, SB-5, and SB-7) and the soil borings to assess the potential environmental issue with respect to urban fill material (SB-9, SB-10, SB-11, and SB-12). The composite samples were comprised of soil from the entire boring column. Since no evidence of field contamination (petroleum odor and elevated PID measurements) was detected and groundwater was encountered, the grab sample from the borings was collected from the six (6) inch interval above the groundwater table in borings SB-3, SB-5, SB-7, SB-9, SB-10, SB-11, and SB-12 and from 19.5-20 in boring SB-2 where groundwater was not encountered. Grab and composite samples were not collected from the remaining four (4) "Moderate" risk soil borings (SB-1, SB-4, SB-6, and SB-8) since contamination was not identified during field screening.
- Laboratory analysis of the composite soil samples collected from borings SB-2, SB-3, SB-5, SB-7, SB-9, SB-10, SB-11, and SB-12 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 6010; (3) TCL pesticides by EPA Method 8081; and (4) TCL polychlorinated biphenyls (PCBs) by EPA Method 8082.

- Laboratory analysis of the grab soil samples collected from borings SB-2, SB-3, SB-5, SB-7, SB-9, SB-10, SB-11, and SB-12 for TCL volatile organic compounds (VOCs) by EPA Method 8260.
- The installation of three (3) temporary well points (TWPs) in borings SB-5, SB-9, and SB-12 using direct push technology by installing a slotted PVC screen perpendicular to the groundwater table and riser pipe to grade. Dedicated PVC tubing connected to a check valve was deployed in each of the TWPS installed in SB-5, SB-9, and SB-12 to extract a groundwater sample. A fourth TWP was installed in boring SB-2; however, it was determined that a perched water table was encountered and a water sample could not be collected due to poor recharge.
- Laboratory analysis of the groundwater sample for the parameters published by the New York City Department of Environmental Protection (NYCDEP) as Limitations for Effluent to Sanitary or Combined Sewers (NYCDEP Storm Sewer Discharge Criteria).
- The collection of three (3) area composite waste characterization (WC) samples as follows:
 - o WC-1 composited of soil from borings SB-1, SB-2 SB-9, and SB-10 (grade to bottom).
 - o WC-2 composited of soil from borings SB-6, SB-6, SB-8, and SB-12 (grade to bottom).
 - o WC-3 composited of soil from borings SB-3, SB-4, SB-5, and SB-11 (grade to bottom).
- Laboratory analysis of the area composite waste characterization samples for: (a) Full Toxicity
 Characteristics Leaching Procedure (TCLP) by EPA Method SW846; (b) Resource Conservation and
 Recovery Act (RCRA) characteristics (ignitability, reactivity and corrosivity) by EPA Method
 SW846; and (c) Total Petroleum Hydrocarbons Diesel Range Organics/Gasoline Range Organics
 (TPHC DRO/GRO) by EPA Methods 8015B/8015.



2.0 CORRIDOR INFORMATION

2.1 Corridor Location, Description and Use

The Corridor is located in the Great Kills neighborhood of Staten Island, New York, and consists of the following 15 street segments and two (2) easements:

- 1. Amboy Road, between Acacia Avenue and Adrienne Place;
- 2. Acacia Avenue, between Amboy Road and dead end;
- 3. Easement between Brown Avenue and Hillside Terrace;
- 4. Nelson Avenue between Amboy Road and Monticello Terrace;
- 5. Locust Place, between Nelson Avenue and Hillside Terrace;
- 6. Cleveland Avenue, between Locust Place and Monticello Terrace;
- 7. Monticello Terrace, between Nelson Avenue and Cleveland Avenue;
- 8. Grandview Terrace, between Nelson Avenue and Hillside Terrace;
- 9. Rustic Place, between Nelson Avenue and Hillside Terrace;
- 10. Brown Avenue, between Amboy Road and Locust Place;
- 11. Hillside Terrace between Amboy Road and Grandview Terrace;
- 12. Proposed easement between JP-3 and Jack's Pond;
- 13. Ramble Road, between Adrienne Place and Dent Road,
- 14. Adrienne Place, between Hillside Terrace and Amboy Road;
- 15. Clovis Road, between Adrienne Place and dead end;
- 16. Dent Road between Hillside Terrace and Ramble Road; and
- 17. Belden Street, between Nelson Avenue and dead end.

The Corridor location is shown on Figure 1. Property usage within the Corridor consists primarily of two-story residential buildings, churches, public schools, and retail commercial development, offices, restaurants, and a shopping center along Amboy Road. In addition, Jack's Pond is located along the northeastern portion of the Corridor between Clovis Road and Ramble Road, Wood Duck Pond and wooded/vegetated land that is identified on a sign as Wood Duck Pond Bluebelt is located along the southeastern portion of the Corridor at the terminus of Acacia Avenue, and wooded/vegetated land located is along the western side of Cleveland Avenue and eastern side of Cleveland Avenue towards Hillside Terrace. The Corridor is approximately 13,770 LF long (2. 6 mile) and consists of paved roadways and existing infrastructure systems.

2.2 Description of Surrounding Properties

The Corridor is primarily surrounded by residential areas, with commercial development and transportation facilities, including Staten Island Railway (SIR). Other features and structures in the general vicinity of the Corridor include parks, golf course, schools, restaurants, etc. Major features in the vicinity of the Corridor are listed below:

- Metropolitan Transportation Authority (MTA) Staten Island Railway (SIR) rail road tracks, located approximately 0.05 mile to the northwest of the Corridor;
- Hylan Boulevard, located approximately 0.15 mile to the southeast of the Corridor;
- Great Kills Harbor, located approximately 0.31 mile to the southeast of the Corridor;
- Siedenburg Park, located approximately 0.38 mile to the east-northeast of the Corridor;
- Great Kills Park, located approximately 0.67 mile to the east of the Corridor;



- King Fisher Park, located approximately 0.79 mile to the north of the Corridor;
- Ocean View Cemetery, Douglass Cemetery, Mt. Richmond Cemetery, and United Hebrew Cemetery, located approximately 0.83 to 1.1 mile to the northeast of the Corridor; and
- Latourette Park and Country Club, located approximately 1.37 mile to the north of the Corridor.

2.3 Corridor and Regional Topographic Setting

Based on a review of the United States Geological Survey (USGS) 7.5-minute Topographic Quadrangle Map for Arthur Kill, NY-NJ (dated 1966, photorevised 1981) to determine the topography at the Corridor. The Corridor exhibits a vertical change of approximately 20 feet along the length of the Corridor. The approximate elevation of the Corridor ranges from approximately 80 feet above mean sea level (amsl) in the northeastern portion of the Corridor; approximately 60 feet amsl in the southeastern portion of the Corridor, and approximately 60 feet amsl in the southern portion of the Corridor. Surface runoff is expected to be primarily to the southeast, toward the Great Kills Harbor. A copy of the topographic map is presented on Figure 1.

2.4 Corridor and Regional Geology

According to the USGS Ground Water in Bronx, New York, and Richmond Counties, with Summary Data on Kings and Queens Counties, New York City, New York (1953), the area's geology is expected to consist of Pleistocene-age glacial till and moraine deposits and glaciofluvial sediments derived from meltwater of the retreating glaciers. According to the New York State Geological Survey Surficial Geologic Map of New York, Lower Hudson Sheet, dated 1989, the area's surficial geology consists consist of outwash sand and gravel (e.g., coarse to fine gravel with sand). The upper portions of the glacial deposits have been disturbed by a long history of development activities, thus resulting in a layer of fill material, which is classified as Urban Land. Typically, these soils have been mixed with other materials, such as brick and concrete.

The subsurface soils encountered during this Phase II SCI consisted of varying gradations of reddish brown sand, brown sand, reddish brown silty sand, grey clay, reddish brown clay, and gravel and cobbles. Man-made materials (brick, concrete, cinders, ash, glass, etc.) and/or wood fragments, which are indicative of urban fill, were not encountered. However, the presence of gravel and cobbles in the first six (6) feet in borings SB-1, SB-2, SB-3, SB-4, SB-6, SB-7, SB-8, SB-9, SB-10, SB-11, and SB-12 is indicative of fill material. Bedrock was not encountered during the Phase II SCI. Refusal was encountered in boring SB-1 at 16 ftbg and in boring SB-3 at 15.5 ftbg. Geologic Boring Logs are provided in Appendix B.

2.5 Corridor and Regional Hydrogeology

The nearest surface water bodies are: (1) Jack's Pond, located along the northeastern portion of the Corridor between Clovis Road and Ramble Road; (2) Wood Duck Pond, located along the southeastern portion of the Corridor at the terminus of Acacia Avenue and (3) Great Kills Harbor, located approximately 0.73 mile to the southeast of the Corridor. Groundwater was encountered at borings SB-12 at depths that ranged from eight (8) to 19 ftbg. Groundwater was not encountered at borings SB-1 and SB-2. A TWP was installed in boring SB-2; however, it was determined that a perched water table was encountered at approximately seven (7) ftbg and a water sample could not be collected due to poor recharge. Based on the topography, the regional groundwater flow direction is anticipated to be to the southeast, toward Great Kills Harbor.

5



Estimated groundwater levels and/or flow directions may vary due to seasonal fluctuations in precipitation, local usage demands, geology, underground structures, or dewatering operations.



3.0 CORRIDOR EVALUATION

Proposed construction activities at this site include soil excavation and may include dewatering, which inturn 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. ATC provided oversight for the advancement of 12 soil borings, the installation of four (4) temporary well points (TWPs) 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 samples from the borings were transferred into laboratory supplied sample jars and properly labeled. The samples were 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

Twelve (12) borings (SB-1 through SB-12) were advanced to a depth of 20 ftbg or refusal using a direct push drill rig. Prior to direct push advancement, borings were cleared to a depth of six (6) ftbg using a vactron and post hole digger. Soil samples were collected using 4-foot long, 1-inch diameter Macro Core stainless steel samplers equipped with polyvinyl chloride (PVC) liners. Soil boring locations are shown on Figure 2. 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:

- SB-1 Advanced in Amboy Road, 15 feet west-southwest of the western curbline of Colon Avenue and 6 feet south-southeast of the northern curbline of Amboy Road.
- SB-2 Advanced in Amboy Road, 136 feet west-southwest of the western curbline of Sherwood Place and 9 feet south-southeast of the northern curbline of Amboy Road.
- SB-3 Advanced in Nelson Avenue, 35 feet south-southeast of the southern curbline of Belden Street and 3 feet west-southwest of the eastern curbline of Nelson Avenue.
- SB-4 Advanced in Nelson Avenue, 5 feet south-southeast of the northern curbline of Grandview Terrace and 1 feet west-southwest of the eastern curbline of Nelson Avenue.
- SB-5 Advanced in Monticello Terrace, 9 feet west-southwest of the western curbline of Cleveland Avenue and 5 feet south-southeast of the northern curbline of Monticello Terrace.
- SB-6 Advanced in Amboy Road, 25 feet east-northeast of the eastern curbline of Hillside Terrace and 4 feet northwest of the southern curbline of Amboy Road.
- SB-7 Advanced in Amboy Road, 40 feet west-southwest of the western curbline of Hillside Terrace and 12 feet northwest of the southern curbline of Amboy Road.
- SB-8 Advanced in Amboy Road, 35 feet northeast of the eastern curbline of Nelson Avenue and 8 feet northwest of the southern curbline of Amboy Road.



- SB-9 Advanced in Nelson Avenue, 150 feet south-southwest of the southern curbline of Locust Place and 3 feet west of the eastern curbline of Nelson Avenue.
- SB-10 Advanced in Cleveland Avenue, 530 feet northwest of the northern curbline of Rustic Place and 4 feet east-northeast of the western curbline of Cleveland Avenue.
- SB-11 Advanced in Hillside Terrace, 45 feet northwest of the southern curbline of Rustic Place and 38 feet northeast of the western curbline of Hillside Terrace.
- SB-12 Advanced in Clovis Road, 6 feet southeast of the southern curbline of Adrienne Place and 10 feet east of the western curbline of Clovis Road.

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 samples were collected from each of the borings at 4-foot intervals. Upon sample retrieval, the soils were examined for visual evidence (i.e. staining, discoloration) and any olfactory indications (i.e. odors) of contamination. In addition, a photo-ionization detector (PID) was used to screen the soil for VOC vapors.

In order to identify representative conditions relative to the presence of SVOCs, metals, 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 collected from two (4) "Moderate" risk soil borings and four (4) soil borings to assess the potential environmental issue with respect to urban fill material in accordance with the Phase II SCI Work Plan prepared by ATC and dated October 31, 2011.

In order to identify representative conditions relative to the presence of VOCs, grab soil samples were collected from the six (6) inch interval above the groundwater table in borings SB-3, SB-5, SB-7, SB-9, SB-10, SB-11, and SB-12 and from 19.5-20 in boring SB-2 where groundwater was not encountered.

In order to identify representative conditions for disposal purposes, waste classification (WC) samples were collected as follows:

- WC-1 composited of soil from borings SB-1, SB-2, SB-9, and SB-10 (grade to bottom).
- WC-2 composited of soil from borings SB-6, SB-6, SB-8, and SB-12 (grade to bottom).
- WC-3 composited of soil from borings SB-3, SB-4, SB-5, and SB-11 (grade to bottom).

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 clear PVC liner was used inside the sampler for neat recovery of the soil cores. Following the completion of each boring, the boreholes were back-filled with drill cuttings, and, where appropriate, sealed with asphalt to match the existing surface.

3.2 Groundwater Quality Investigation

As groundwater may be encountered within the depths associated with the future excavation, three (3) groundwater samples were collected for screening and laboratory analysis during the soil boring activities. TWPs were installed in soil borings SB-5, SB-9, and SB-12. A fourth TWP was installed in boring SB-2; however, it was determined that a perched water table was encountered and a water sample

ATC Associates, Inc.
DDC CAPIS ID No. SE803



could not be collected due to poor recharge. Groundwater was encountered at 12 ftbg in boring SB-5, 11 ftbg in boring SB-9, and 8 ftbg in SB-12.

For the installation of the TWP in boring SB-5, the drill rig unit was advanced to a depth of 20 ftbg, approximately 8 feet into the encountered water table. The TWP consisted of a 10-foot section of two-inch schedule 40 PVC rise pipe and a 10-foot length section of two-inch diameter schedule 40 PVC screen.

For the installation of the TWP in boring SB-9, the drill rig unit was advanced to a depth of 20 ftbg, approximately 9 feet into the encountered water table. The TWP consisted of a 8-foot section of two-inch schedule 40 PVC rise pipe and a 10-foot length section of two-inch diameter schedule 40 PVC screen.

For the installation of the TWP in boring SB-12, the drill rig unit was advanced to a depth of 20 ftbg, approximately 12 feet into the encountered water table. The TWP consisted of a 6-foot section of two-inch schedule 40 PVC rise pipe and a 10-foot length section of two-inch diameter schedule 40 PVC screen.

A groundwater sample was collected from the each TWP for screening and laboratory analysis via dedicated polyethylene tubing and check valve. All tubing was new, clean and unused and was properly disposed after use. Upon extraction, the samples were examined for visual evidence (i.e., discoloration, sheen) and any olfactory indications (i.e. odors) of contamination were noted.

The TWP logs and a summary of the measurements taken from the TWPs are provided in Appendix B. The location of the TWPs is shown on Figure 2.

3.3 Laboratory Analyses

The soil samples were submitted to CHEMTECH Consulting Group (CHEMTECH), of Mountainside, New Jersey, a NYSDOH-approved laboratory (No. 11376). Field derived Quality Assurance/Quality Control samples (trip blanks, field blanks and duplicates) were not collected for this project. Laboratory analytical reports are included in Appendix C.

The grab soil samples were analyzed for TCL VOCs by Method 8260. The boring composite soil samples were analyzed for: (1) TCL SVOCs by EPA Method 8270; (2) TAL metals by EPA Method 6010; (3) TCL pesticides by EPA Method 8081; and (4) TCL PCBs by EPA Method 8082.

The area composite waste characterization soil samples were analyzed for: (1) the EPA Full TCLP parameters by EPA Method SW846; (2) the RCRA characteristics (ignitability, reactivity and corrosivity) by EPA Method SW846; and (3) TPHC DRO/GRO by EPA Method 8015/8015B.

The groundwater samples were analyzed for parameters published by NYCDEP as Limitations for Effluent to Sanitary or Combined Sewers.

3.4 Data Evaluation

In order to evaluate the subsurface soil quality, the laboratory analytical results for soils were compared with the regulatory standards identified in: (1) New York State Department of Environmental Conservation (NYSDEC) Policy CP-51/Soil Cleanup Guidance Supplemental Soil Cleanup Objectives (SSCOs). NYSDEC Policy CP-51, which was issued on October 21, 2010 and became effective on December 3, 2010, replaced the NYSDEC Technical and Administrative Guidance Memorandum #4046

ATC Associates, Inc.
DDC CAPIS ID No. SE803



(TAGM) Recommended Soil Cleanup Objectives (RSCOs) and the NYSDEC Spill Technology and Remediation Series (STARS) 1992 Memo #1, Petroleum Contamination Soil Guidance Policy Toxicity Characteristic Leaching Procedure (TCLP) Alternative Guidance Values (AGVs). (2) NYSDEC Subpart 375-6: Remedial Program Unrestricted and Restricted-Residential Use Soil Cleanup Objectives (SCOs); and (3) the Toxicity Characteristic Regulatory Levels for Hazardous Waste published in RCRA and NYSDEC Part 371. In order to evaluate the groundwater quality, the laboratory analytical results for the groundwater sample were compared to the NYCDEP Sewer Discharge Criteria.



4.0 FINDINGS

This section discusses the analytical data and findings for the activities discussed in Section 3. 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 did not identify petroleum-impacted soils throughout the Corridor. The review of laboratory analytical results did not suggest the presence of petroleum-impacted soils throughout the Corridor. PID readings were not detected in any of the borings. 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

Acetone was detected at a concentration of 0.065 milligrams per kilogram (mg/kg) in grab soil sample SB-5 and 0.15 mg/kg in grab sample SB-11, which are above its Unrestricted Use SCO of 0.05 mg/kg and below its Restricted-Residential Use SCO of 100 mg/kg. Acetone was detected in one (1) of the six (6) remaining grab samples at concentrations below its Unrestricted Use and Restricted-Residential Use SCO. Acetone does not have an established Restricted-Residential SSCO. Acetone is commonly used by laboratories, and its detection is considered to be attributed to laboratory cross-contamination and is not considered to be representative of subsurface concentrations. 2-Butanone (MEK) was detected in grab soil samples SB -5 and SB-11 at concentrations below its Unrestricted Use and Restricted-Residential Use SCO. 2-Butanone (MEK) does not have an established Restricted-Residential SSCO. No other VOCs were detected at concentrations above the method detection limit (MDL) in any of the remaining grab samples collected. Refer to Table 2 for a summary of TCL VOC detections.

4.2.2 Semi-Volatile Organic Compounds (SVOCs) in Soil

SVOCs were not detected at concentrations above the method detection limit (MDL) in any of the composite samples collected. Refer to Table 3 for a summary of analytical results for TCL SVOCs in soil.

4.2.3 Target Analyte List Metals (TAL Metals) in Soil

Metals were detected in all eight (8) composite samples collected (SB-2, SB-3, SB-5, SB-7, SB-9, SB-10, SB-11, SB-12). Iron was detected at a concentration above its Restricted-Residential SSCO in each of the eight (8) composite samples collected. Iron does not have an established Unrestricted Use SCO or Restricted-Residential Use SCO. Nickel was detected at a concentration above its Unrestricted Use and Restricted-Residential Use SCO in SB-5. Nickel was detected at a concentration above its Unrestricted Use SCO and below its Restricted-Residential Use SCO in seven (7) of the eight (8) composite samples collected. Nickel does not have an established Restricted-Residential SSCO. Other metals were detected in each of the soil samples collected at concentrations below their Unrestricted Use SCOs, Restricted-Residential Use SCOs, and Restricted-Residential SSCO. Hexavalent chromium was detected at a concentration range of 0.17 to 0.49 mg/kg, trivalent chromium at a concentration range of 9.4 to 29.63 mg/kg, and lead at a concentration range of 3.62 to 16.3 mg/kg, which are all below the applicable standards. The presence of metals is attributable to natural (background) levels and/or the presence of fill materials. Refer to Table 4 for a summary of TAL metals detections.



4.2.4 Pesticides in Soil

4,4,'-DDT was detected in composite samples SB-9, SB-10, and SB-12 at concentrations below their Unrestricted Use SCOs and Restricted-Residential Use SCOs. 4,4,'-DDT does not have an established Restricted-Residential SSCO. No other pesticides were detected at concentrations above the MDL in any of the remaining composite samples collected. Refer to Table 5 for a summary of analytical results for Pesticides in soil.

4.2.5 PCBs in Soil

Aroclor-1254 was detected in composite samples SB-9, SB-10, and SB-12 at concentrations below their Unrestricted Use SCOs and Restricted-Residential Use SCOs. Aroclor-1254 does not have an established Restricted-Residential SSCO. No other PCBs were detected at concentrations above the MDL in any of the remaining composite samples collected. Refer to Table 6 for a summary of analytical results for PCBs in soil.

4.2.6 Waste Classification of Soil

Ignitability (flash point), reactivity (cyanide and sulfide), and corrosivity (pH) were within the acceptable RCRA ranges. TCLP VOCs, SVOCs, herbicides, pesticides, PCBs, and GRO were not detected in the waste classification soil samples (WC-1 and WC-2). DRO were detected at concentration of 145.976 mg/kg in WC-1, 5.835 mg/kg in WC-2, and 5.816 mg/kg in WC-3. There is no NYSDEC regulatory standard for DRO. The presence of DRO in the soil samples may be attributed to the detection of organic compounds that are within the diesel, but not necessarily diesel constituents. Barium was detected at a concentration of 0.257 milligrams per liter (mg/L) in WC-1, 0.375 mg/L in WC-2, and 0.308 mg/L in WC-3, which are significantly below its corresponding RCRA hazardous waste levels. The presence of barium is attributed to natural (background) levels. Analytical results will need to be compared to levels acceptable by the chosen receiving facility to determine appropriate waste classification prior to off-site disposal. Refer to Table 7 for a summary of TCLP parameters, RCRA characteristics and DRO/GRO results.

4.2.7 Analysis of NYCDEP Parameters in Groundwater

Three groundwater samples (SB-5 WS, SB-9 WS, SB-12 WS) were analyzed for the parameters required by the NYCDEP Limitations for Effluent to Sanitary or Combined Sewers (Daily Limit). Total Suspended Solids (TSS) was detected at a concentration of 1,300 mg/L in the groundwater sample collected from SB-5, 34,000 mg/L in SB-9, and 1,200 mg/L in SB-12. The concentrations exceed the TSS NYCDEP Sewer Discharge Criterion of 350 mg/L. Nickel was detected at a concentration of 14.3 mg/L in the groundwater sample collected from SB-5 and 5.78 mg/L in SB-9. The concentrations exceed the nickel NYCDEP Sewer Discharge Criterion of 3 mg/L. The presence of TSS and nickel is likely attributed to the fact that the unfiltered groundwater sample was collected from a TWP and not a permanent monitoring well. However, the groundwater sample collected from a TWP is considered to be more representative of conditions to be encountered during construction activities. All other parameters were within NYCDEP Sewer Discharge Criteria. However, based on the results for TSS and nickel, groundwater does not meet NYCDEP Sewer Discharge Criteria and may require pre-treatment prior to discharge. Refer to Table 8 for a summary of 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:

- Field screening did not identify petroleum-impacted soils throughout the Corridor. The review of laboratory analytical results did not suggest the presence of petroleum-impacted soils throughout the Corridor. PID readings were not detected in any of the borings. Fill material was encountered from grade to approximately six (6) ftbg in 11 of the 12 borings advanced.
- Subsurface soils contain elevated concentrations of iron above the Restricted-Residential SSCO and nickel above the Unrestricted Use SCO in each of the soil samples collected. The presence of metals is attributable to natural (background) levels and/or the presence of fill materials.
- The presence of 4'4'-DDT and aroclor-1254 at low levels may be attributed to the presence of fill materials.
- DRO and GRO were detected in the area composite waste characterization samples collected. There are no NYSDEC regulatory standards for DRO and GRO. The presence of DRO and GRO may be attributed to the detection of organic compounds that are within the diesel and gasoline ranges, but not necessarily diesel and gasoline constituents. In addition, the presence of DRO and GRO may be attributed to the presence of fill materials.
- The subsurface soils did not exhibit hazardous waste characteristics.
- Three (3) groundwater samples (SB-5 WS, SB-9 WS, SB-12 WS) collected contained concentrations of TSS and nickel that exceeded the NYCDEP Sewer Discharge Criteria. The presence of elevated levels of TSS and nickel in the groundwater is attributed to the fact that the unfiltered sample was collected from a TWP and not a permanent monitoring well. However, the groundwater samples collected with suspended sediments.

Based on the results of the field investigation and laboratory analytical results, ATC recommends the following:

- The Contract documents should identify provisions for managing, handling, transporting and disposing of non-hazardous contaminated soil for metals, including iron and nickel. The Contractor should be required to submit a Material Handling Plan, which should identify the specific protocol and procedures that will be employed to manage the waste in accordance with applicable regulations.
- Due to the presence of metals in the investigated sites, 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) 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

ATC Associates, Inc. DDC CAPIS ID No. SE803



situation in consultation with the New York State Department of Health (NYSDOH) to ensure proper applicability.

- Dewatering may be necessary during construction activities. Based on the groundwater analytical results, groundwater may require pre-treatment for TSS and nickel prior to discharge to sanitary or combined sewers. The contractor may be required to obtain a NYCDEP sewer discharge permit if dewatering to the sanitary or combined sewer is necessary.
- If discharge into storm sewers is required during dewatering, it may be done under the appropriate NYSDEC State Pollutant Discharge Elimination System (SPDES) permit. Additional sampling and laboratory analysis may be required to satisfy NYSDEC requirements prior to discharge into storm sewers.
- 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 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).
- Field screening did not identify petroleum-impacted soils throughout the Corridor. The review of laboratory analytical results did not suggest the presence of petroleum-impacted soils throughout the Corridor. PID readings were not detected in any of the borings. Fill material was encountered from grade to approximately six (6) ftbg in 11 of the 12 borings advanced.
- Acetone was detected at a concentration in grab soil samples SB-5 and SB-11, which are above its Unrestricted Use SCO and below its Restricted-Residential Use SCO. Acetone was detected in one (1) of the six (6) remaining grab samples at concentrations below its Unrestricted Use and Restricted-Residential Use SCO. Acetone is commonly used by laboratories, and its detection is considered to be attributed to laboratory cross-contamination and is not considered to be representative of subsurface concentrations.
- Subsurface soils contain elevated concentrations of iron and nickel in each of the soil samples collected. Other metals were detected in each of the soil samples collected at concentrations below their Unrestricted Use SCOs. The presence of metals is attributable to natural (background) levels and/or the presence of fill materials.
- One (1) pesticide (4'4'-DDT) and one (1) PCB (Aroclor-1254) were detected in three samples at concentrations below their Unrestricted Use SCOs and Restricted-Residential Use SCOs. The presence of 4'4'-DDT and aroclor-1254 at low levels may be attributed to the presence of fill materials.
- DRO and GRO were detected in the area composite waste characterization samples collected. There are no NYSDEC regulatory standards for DRO and GRO. The presence of DRO and GRO may be attributed to the detection of organic compounds that are within the diesel and gasoline ranges, but not necessarily diesel and gasoline constituents. In addition, the presence of DRO and GRO may be attributed to the presence of fill materials.



- The subsurface soils did not exhibit hazardous waste characteristics.
- Three (3) groundwater samples (SB-5 WS, SB-9 WS, SB-12 WS) collected contained concentrations of TSS and nickel that exceeded the NYCDEP Sewer Discharge Criteria. The presence of elevated levels of TSS and nickel in the groundwater is attributed to the fact that the unfiltered sample was collected from a TWP and not a permanent monitoring well. However, the groundwater samples collected from TWPs are considered to be more representative of conditions to be encountered during construction activities. Additional analysis for the remaining parameters will be required if dewatering is needed during construction.

Based on the results of the field investigation and laboratory analytical results, ATC recommends the following:

- The Contract documents should identify provisions for managing, handling, transporting and disposing of non-hazardous contaminated soil for metals, including lead and chromium. The Contractor should be required to submit a Material Handling Plan, which should identify the specific protocol and procedures that will be employed to manage the waste in accordance with applicable regulations.
- Due to the presence of metals in the investigated sites, 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) 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 the New York State Department of Health (NYSDOH) to ensure proper applicability.
- Dewatering may be necessary during construction activities. Based on the groundwater analytical
 results, groundwater will require pre-treatment for TSS and nickel prior to discharge to sanitary or
 combined sewers. The contractor will be required to obtain a NYCDEP sewer discharge permit if
 dewatering to the sanitary or combined sewer is necessary.
- If discharge into storm sewers is required during dewatering, it may be done under the appropriate NYSDEC State Pollutant Discharge Elimination System (SPDES) permit. Additional sampling and laboratory analysis may be required to satisfy NYSDEC requirements prior to discharge into storm sewers.
- 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 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:

Matthew Mankovich Senior Project Manager

Natth Man Koal

Report Reviewed By:

Michael Abramowitz

Manager, Environmental Division



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.

ATC 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, ATC 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, ATC 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 ATC 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.



TABLES

TABLE 1 - SUMMARY OF ENVIRONMENTAL BORING DATA
TABLE 2 - SUMMARY OF TCL VOCs DETECTED IN SOIL
TABLE 3 - SUMMARY OF TCL SVOCS ANALYTICAL RESULTS IN SOIL
TABLE 4 - SUMMARY OF TAL METALS DETECTED IN SOIL
TABLE 5 - SUMMARY OF PESTICIDES IN SOIL
TABLE 6 - SUMMARY OF PCBs DETECTED IN SOIL
TABLE 7 - SUMMARY OF WASTE CHARACTERIZATION SAMPLE
ANALYSIS OF SOIL
TABLE 8 - SUMMARY OF NYCDEP PARAMETERS ANALYZED IN
GROUNDWATER SAMPLES



Sanitary, Storm Sewer, and Water Mains in Ramble Road, Staten Island, New York

Table 1. Summary of Environmental Boring Data Phase II Subsurface Corridor Investigation for Sanitary, Storm Sewer, and Water Mains in Ramble Road Staten Island, New York

	No grap sample collecter 0-20 11.5-12		0 0
A ND Yes	NA ND ND NA ND ND NA ND	2 0.079 NA ND NA ND	0-20 NA ND 11.5-12 0.079 NA 0-20 NA ND
9	Đ Đ	Ð.	0-20 NA ND NO grab
	NA 0.079	N	0-20 NA 0-20 NA 0-20 NA 0-20 NA
			0-20 0-20 0-20 0-20 0-20 0-20

HAZ-65

*In SB-2, perched groundwater was encountered at approximately 7-8 feet below ground surface which was not reflective of the groundwater table. A temporary well point was installed; however, no water sample was collected due to poor recharge.

1. Metal(s) exceeds SCOs or SSCOs
All soil samples were analyzed for Target Compound List (TCL) Volatile Organic Compounds, Semi-Volatile Organic Compounds (SVOCs), Pesticides, PCBs and Target Analyte List (TAL) Metals.

NA = Not Analyzed or Not Applicable ND = Not Detected

flbg = feet below grade ppm = parts per million

mg/kg = milligrams per kilogram

Fill material was identified borings SB-1, SB-2, SB-3, SB-4, SB-6, SB-7, SB-8, SB-10, SB-11, and SB-12 from grade to approximately six (6) ftbg. Staining was not observed in any of the borings.



Table 1. Summary of Environmental Boring Data Phase II Subsurface Corridor Investigation for Sanitary, Storm Sewer, and Water Mains in Ramble Road Staten Island, New York

Boring No.	Sample ID	PID (ppm)	Sample Interval (ftbg)	Total VOCs (mg/kg)	Total SVOCs (mg/kg)	Metals Exceed (Yes/No) [†]	Total Pesticides (mg/kg)	Total PCBs (mg/kg)	Depth to Water (ftbg)	Total Depth (ftbg)	Other Comments
	2-8S		9.5-10	QN	N.A	۸N	NA	NA			Grab Sample
SB-7	2-8S	0	0-20	ΨN	QN	Yes	ND	ND	10	20	Boring composite sample and aliquot for waste characterization composite sample collected.
8-8 <i>S</i>	SB-8	0	No grab sample collected	QN	NA VA	NA	NA	NA	14	20	No grab sample collected.
	SB-8		0-20	NA	ND	No	ND	ND			Aliquot for waste characterization composite sample collected.
	8B-9		10.5-11	QN	NA	NA	NA	NA			Grab Sample
SB-9 / TWP	SB-9	0	0-50	۷ ۲	ND	Yes	0.003	0.052	11	20	Boring composite sample and aliquot for waste characterization composite sample collected. Temporary Well Point (TWP) installed. Groundwater sample collected.
	SB-10		7.5-8	QN	NA	NA	NA	NA			Grab Sample
SB-10	SB-10	0	0-20	NA	QN	No	0.003	0.052	8	20	Boring composite sample and aliquot for waste characterization composite sample collected.
	SB-11		11.5-12	0.183	NA	ΝΑ	NA	NA			Grab Sample
SB-11	SB-11		0-20	NA	QN	Yes	ND	QN	12	20	Boring composite sample and aliquot for waste characterization composite sample collected.
	SB-12		7.5-8	0.026	NA	NA A	NA	NA			Grab Sample
SB-12 / TWP	SB-12	0	0-20	A	Ŋ	Yes	0.0018	0.031	89	20	Boring composite sample and aliquot for waste characterization composite sample collected. Temporary Well Point (TWP) installed. Groundwater sample collected.

HAZ-66

1. Metal(s) exceeds SCOs or SSCOs

All soil samples were analyzed for Target Compound List (TCL) Volatile Organic Compounds, Semi-Volatile Organic Compounds (SVOCs), Pesticides, PCBs and Target Analyte List (TAL) Metals.

ND = Not Detected

NA = Not Analyzed or Not Applicable

ftbg = feet below grade ppm = parts per million

mg/kg = milligrams per kilogram

Fill material was identified borings SB-1, SB-2, SB-3, SB-4, SB-6, SB-7, SB-8, SB-10, SB-11, and SB-12 from grade to approximately six (6) ftbg. Staining was not observed in any of the borings.

ATC Associates Inc.

Work Order Letter No. 7979-ATC-7513



Sanitary, Storm Sewer, and Water Mains in Ramble Road, Staten Island, New York New York City Department of Design and Construction Final Phase II Subsurface Corridor Investigation

Table 2. Summary of Target Compound List Volatile Organic Compounds Analytical Results in Soil Phase II Subsurface Corridor Investigation for Sanitary, Storm Sewer, and Water Mains in Ramble Road Staten Island, New York

4 4		Subpart 375-6	Subpart 375.6 Restricted	CP-51 Restricted			8S	mple ID, Date Co	Sample ID, Date Collected and Depth	ء		
/ 5	30, 121	Unrestricted Use	Residential Use	Residential	SB-2	SB-3	SB-5	SB-7	SB-9	SB-10	SB-11	SB-12
<u> </u>	200		Soil Cleanup Objectives	Cleanin Objectives	2/6/2012	2/10/2012	2/9/2012	2/8/2012	2/8/2012	2/8/2012	2/10/2012	2/6/2012
		Objectives (SCOs)	(SCOS)	(socos)	19.5-20'	7.5-8"	11.5-12'	9.0-10	10.5-11"	7.5-8"	11.5-12	7.5-8'
<u>(</u>	Acetone	0.05	100	NS	QN	QN	. 0.065	ND	ON	Q	0.15	0.026J
ά 7	-Butanone (MEK)	1.3	19	NS	QN	QN	0.014.1	ON	Q	QN	0.033	Q

All concentrations are reported in mg/kg

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

B = Compound was detected in an associated laboratory blank J = Compound detected below the quantitation limit

BOLD = Concentration exceeds CP-51 SSCOs

Shading = Concentration exceeds Subpart 375-6 Unrestricted Use SCOs

<u>Underline</u>: = Concentration exceeds Subpart 375-6 Restricted-Residential Use SCOs

ATC Associates Inc. DDC Project Number: SE803

March 16, 2012 Work Order Letter No. 7979-ATC-7513

Table 3. Summary of Target Compound List Semi-Volatile Organic Compounds Analytical Results in Soil Phase II Subsurface Corridor Investigation for Sanitary, Storm Sewer, and Water Mains in Ramble Road Staten Island, New York

		Subnert 375.6	CP-51 Restricted			Ö	Sample ID, Date Collected and Depth	collected and D	epth		
	Subpart 375-6		Residential	SB.2	SB-3	SB-6	SB-7	SB-9	SB-10	SB-11	SB-12
TCI SVOC	Unrestricted Use	9	Supplemental Soil	ſ	2/10/2012	2/9/2012	2/8/2012	2/8/2012	2/8/2012	2/10/2012	2/6/2012
	Soil Cleanup Objectives (SCOs)	Soil Cleanup Objectives (SCOs)	Cleanup Objectives (SSCOs)	1	0-20.	0-20,	0-20.	0-50,	0-20.	.0-70	0-20,
										4:	9
SVOCs	Varies by Compound	Varies by Compound Varies by Compound	Varies by Compound	ND	QN	Q	QN	QN	QN	Q.	NO.
,,,,,											

HAZ- 68

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

J = Compound detected below the quantitation limit

B = Compound was detected in an associated laboratory blank

BOLD = Concentration exceeds CP-51 SSCOs

Underling: = Concentration exceeds Subpart 375-6 Restricted-Residential Use SCOs Shading ≃ Concentration exceeds Subpart 375-6 Unrestricted Use SCOs

ATC Associates Inc.

DDC Project Number: SE803

Work Order Letter No. 7979-ATC-7513 March 16, 2012



Table 4. Summary of Target Anayte List Metals Detected in Soil Phase II Subsurface Corridor investigation for Sanitary, Storm Sewer, and Water Mains in Ramble Road Staten Island, New York

Oge Analyte List Supplemental Soil Cleanup Color Cleanup Cleanup Color Cleanup Color Cleanup Color Cleanup Color Cleanup Cleanup Color Cleanup Color Cleanup Color Cleanup Color Cleanup C		CP-51 Restricted Residential	Subpart 375-6	Subpart 375-6			Sam	Sample ID, Date Collected and Depth	lected and De	pth		
Chicamup Soil Cleanup Color Color Color Color Color Cleanup Color Color Color Color Cleanup Color Color Cleanup Color Color Color Cleanup Color Color Color Cleanup Color Color Color Cleanup Color Color Cleanup Color Color Color Cleanup Color Color Color Cleanup Color Color Color Cleanup Color Color Cleanup Color Color Color Cleanup Color Color Color Cleanup Color Color Color Cleanup Color Color Cleanup Color Color Color Cleanup Color Color Color Cleanup Color Color Color Cleanup Color Color Cleanup Color Color Color Cleanup Color Color Color Cleanup Color Color Color Cleanup Color Color Cleanup Color Color Color Cleanup Color Color Color Cleanup Color Color Color Cleanup Color Color Cleanup Color Color Color Cleanup Color Color Color Cleanup Color Color Color Cleanup Color Color Cleanup Color Color	Target Analyte List	Supplemental	Unrestricted Use	Doeidontial Hea	SB-2	SB-3	SB-5	SB-7	SB-9	SB-10	SB-11	SB-12
Objectives (SCOs) Objectives (SCOs) Objectives (SCOs) Objectives (SCOs) Objectives (SCOs) Objectives (SCOs) 0-20' 0-20' 0-20' INS 13 NS 13 4.44 7.01 1,900 3,320 NS 13 16 4.44 7.01 6.55 4.28 4.28 NS 17.2 4.3 1.02 1.39 0.475 1.36 NS 2.5 4.3 1.02 1.39 0.476 1.01 NS NS NS NS 1.02 1.39 0.476 1.01 NS NS NS NS 1.02 1.39 0.476 1.01 NS NS NS NS 1.02 0.48 0.15 1.05 NS NS NS 1.22 1.79 0.29 0.17 1.20 NS NS NS 1.60 2.00 2.56 2.00 1.50 NS NS NS NS </th <th>Metai</th> <th>Soil Cleanup</th> <th>Soil Cleanup</th> <th>Soil Cleanup</th> <th>2/6/2012</th> <th>2/10/2012</th> <th>2/9/2012</th> <th>2/8/2012</th> <th>2/8/2012</th> <th>2/8/2012</th> <th>2/10/2012</th> <th>2/6/2012</th>	Metai	Soil Cleanup	Soil Cleanup	Soil Cleanup	2/6/2012	2/10/2012	2/9/2012	2/8/2012	2/8/2012	2/8/2012	2/10/2012	2/6/2012
NS NS NS 4,150 4,710 1,900 3,320 NS 350 400 1,60 6,55 4,28 4,28 NS 7,2 7,2 0,388 0,483 0,1551 0,476 1,36 NS 7,2 7,2 0,388 0,483 0,1551 0,476 1,01 0,483 0,1551 0,476 0,471 0,476 0,477 0,471 <t< th=""><th>,</th><th>Objectives (SSCOs)</th><th>Objectives (SCOs)</th><th>Objectives (SCOs)</th><th>0-20.</th><th>0-20.</th><th>0-50.</th><th>0-20.</th><th>.0-70</th><th>0-20.</th><th>.0-70</th><th>0-20.</th></t<>	,	Objectives (SSCOs)	Objectives (SCOs)	Objectives (SCOs)	0-20.	0-20.	0-50.	0-20.	.0-70	0-20.	.0-70	0-20.
NS 13 16 4.44 7.01 6.55 4.28 NS 350 400 37.4 52.4 15.1 136 NS 7.2 7.2 0.388 0.483 0.155J 0.476 NS 2.5 4.3 1.02 1.39 0.489 0.476 NS NS NS NS 1.0 1.01 1.01 NS NS NS 23.1 24.2 9.86 29.8 Attomium NS 110 0.44J 0.36J 0.29J 0.17J Attomium NS 180 22.66 23.84 9.57 29.63 Attomium NS NS 17.48 10.8 8.51 9.24 Attomium NS NS 17.70 23.84 9.57 29.63 Attomium NS NS NS 17.70 21.60 7.89 17.00 NS NS NS 1.60 2.00 1.50 <td>Aluminum</td> <td>SN</td> <td>SN</td> <td>SN</td> <td>4,150</td> <td>4,710</td> <td>1,900</td> <td>3,320</td> <td>2,530</td> <td>4,500</td> <td>6,030</td> <td>3,150</td>	Aluminum	SN	SN	SN	4,150	4,710	1,900	3,320	2,530	4,500	6,030	3,150
NS 350 400 37.4 52.4 15.1 136 NS 7.2 7.2 0.398 0.483 0.155J 0.476 NS 2.5 4.3 1.02 1.39 0.469 1.01 NS NS NS NS 1.02 1.39 0.469 1.01 IChromium NS NS NS 1.02 2.4.2 9.69 1.05 ItChromium NS NS 1.80 22.16 2.24.2 9.86 2.9.8 ItChromium NS 1.80 22.66 23.84 9.57 2.9.8 ItChromium NS NS NS 1.7.8 10.28 0.17. Incomium NS NS NS 1.2.2 17.9 2.6.6 15.3 Incomium NS NS NS NS 1.7.70 21.50 2.6.6 15.3 Incomium NS NS NS NS 1.6.0 1.7.0 1.7.0 </td <td>Arsenic</td> <td>NS</td> <td>13</td> <td>16</td> <td>4.44</td> <td>7.01</td> <td>6.55</td> <td>4.28</td> <td>2.2</td> <td>2.97</td> <td>3.27</td> <td>2.26</td>	Arsenic	NS	13	16	4.44	7.01	6.55	4.28	2.2	2.97	3.27	2.26
NS 7.2 7.2 0.398 0.483 0.155J 0.476 NS 2.5 4.3 1.02 1.39 0.469 1.01 NS NS NS 4.3 1.02 1.39 0.469 1.01 INS NS NS 1.0 4.58 8.69 615 1.01 Irchromium NS 1 110 0.44J 0.361 0.29J 0.17J Irchromium NS 30 180 2.66 2.384 9.57 29.63 Irchromium NS 180 180 2.66 2.384 9.57 29.63 Irchromium NS 50 270 12.2 17.9 2.56 2.24 Irchromium NS 50 270 12.2 17.9 2.6.6 15.3 Irchromium NS 63 17,700 21,500 7.89 17,000 Irchromium NS 63 1,500 2,500 2,500	Barium	SN	350	400	37.4	52.4	15.1	136	26.9	58	134	36
NS 2.5 4.3 1,02 1,39 0,469 1,01 NS NS 458 869 615 1,050 IChromium NS 110 0,44,1 0,36,1 0,29,1 0,17,1 IChromium NS 110 0,44,1 0,36,1 0,29,1 0,17,1 Ahromium NS 30 180 22.66 23.84 9,57 29.63 Ahromium NS NS 17,89 26.6 23.84 9,57 29.63 Ahromium NS NS 17,70 21,60 25.63 15.00 15.3 Ahromium NS NS NS 17,70 21,50 26.6 15.3 Anno NS NS 1,50 2,50 2,00 1,50 1,50 Anno NS 1,600 2,00 2,50 2,50 2,00 1,50 Anno NS 1,600 2,00 2,50 2,50 2,00 1,50 <	Beryllium	NS	7.2	72	0.398	0.483	0.155J	0.476	0.208	0.399	0.573	0.34
In NS NS A58 869 615 1050 Ium NS NS NS 23.1 24.2 9.86 29.8 Ium NS 1 110 0.44, 0.36, 0.29, 0.71, Int Chromium NS 30 180 22.66 23.84 9.57 29.63 Int Chromium NS NS NS 17.70 22.86 23.84 9.57 29.63 Int Chromium NS NS NS 17.70 21.84 9.57 29.63 Int Chromium NS NS NS NS 17.70 21.84 9.57 29.63 Int Chromium NS NS NS 17.70 21.60 27.60	Cadmium	NS	2.5	4.3	1.02	1.39	0.469	1.01	0.626	1.03	1.16	0.967
lum NS NS NS 23.1 24.2 9.86 29.8 slent Chromium NS 1 110 0.44J 0.36J 0.29J 0.17J nt Chromium NS 30 180 22.66 23.84 9.57 29.63 nt Chromium NS NS NS 7.48 10.8 9.57 29.63 nt Chromium NS NS NS 17,70 22.84 9.57 29.63 nt Chromium NS NS NS 17,70 21,60 27.66 15.30 nt NS NS NS NS NS 17,70 21,50 7,890 17,90 nt NS NS NS NS NS 17,00 2,66 17,90 17,50 nt NS NS NS NS NS NS 17,00 1,590 1,590 nt NS NS NS NS NS NS NS NS NS	Calcium	NS	NS	NS	458	869	615	1050	164	526	4540	4350
Allent Chromium NS 1 110 0.44J 0.36J 0.29J 0.17J nt Chromium NS 180 22.66 23.84 9.57 29.63 nt Chromium NS NS NS 7.48 10.8 8.51 29.63 2.963 n NS NS 50 270 17.2 17.9 26.6 17.30 2.24 2.25 2.26 2.25	Chromium	NS	NS	NS	23.1	24.2	98.6	29.8	69'6	27.7	24.1	25.2
nt Chromium NS 180 22.66 23.84 9.57 29.63 rt Chromium 30 NS NS 7.48 10.8 8.51 9.24 rt NS 50 270 17.2 17.9 26.6 15.3 rt NS NS NS 17,700 21,500 7,890 17,000 sium NS NS NS NS 1,500 2,550 2,000 1,590 rese NS 1,600 2,000 325 310 15.90 1,590 rese NS 0.18 0.81 ND ND ND ND rese NS 0.18 0.81 ND 0.033 ND ND rese NS NS NS NS 885 33.5 618 rese NS NS NS NS NS 64.6 88.5 41.4 res NS NS NS NS 885 33.5	Hexavalent Chromium	NS	-	110	0.44J	0.36J	0.29J	0.17J	0.29J	0.49	0.31J	0.24J
30 NS 7.48 10.8 8.51 9.24 NS 50 270 12.2 17.9 26.6 15.3 NS 2,000 NS 17,700 21,600 7,890 17,000 NS NS NS NS 1,500 2,550 2,000 1,590 NS NS 1,600 2,000 325 310 155 738 NS NS 0,18 0,81 ND 0,003J ND ND ND NS NS 30 310 48.6 64.6 88.5 41.4 NS NS NS NS NS 885 335 618 NS NS NS NS NS 885 335 618 NS NS NS NS 19.3 19.3 19.3 19.3	Trivalent Chromium	NS	30	180	22.66	23.84	9.57	29.63	9.4	27.21	23.79	24.96
per NS 50 270 12.2 17.9 26.6 15.3 1 NS NS NS 17,700 21,500 7,890 17,000 nestum NS KS KS NS 1,500 2,550 2,000 1,590 ganese NS 1,600 2,000 325 310 1,590 738 el NS 0,18 0,18 0,18 0,031 ND ND el NS NS NS 885 336 41,4 el NS NS 885 335 618 um NS NS NS 597 391 216 1310 adium NS NS NS 19.3 19.3 19.3 19.3	Cobalt	30	NS	NS	7.48	10.8	8.51	9.24	3.77	8.65	9.56	9.31
1,000 NS NS NS 17,700 21,500 7,890 17,000 1 NS 63 400 7.32 9.47 3.93 7.25 nestum NS NS NS 1,500 2,550 2,000 1,590 ganese NS 1,600 2,000 325 310 155 738 wuy NS 0.18 0.81 ND ND ND ND el NS 30 310 48,6 64,6 88,5 41,4 ssium NS NS NS 391 216 1310 um NS NS NS 19.3 19.3 19.3	Copper	NS	50	270	12.2	17.9	26.6	15.3	9.8	15	23.9	14.7
1 NS 63 400 7.32 9.47 3.93 7.25 nesium NS NS NS 1,500 2,550 2,000 1,590 ganese NS 1,600 2,000 325 310 155 738 wy NS 0.18 0.81 ND ND ND ND el NS 30 310 48,6 64,6 88,5 41,4 ssium NS NS NS 88,5 335 618 um NS NS 597 391 216 1310 sdium NS NS 19,3 19,3	Iron	2,000	NS	NS	17,700	21,500	7,890	17,000	10,700	17,100	14,600	15,600
nesium NS NS 1,500 2,550 2,000 1,590 ganese NS 1,600 2,000 325 310 155 738 uny NS 0.18 0.81 ND ND ND ND el NS 30 310 48.6 64.6 88.5 41.4 ssium NS NS NS 503 885 335 618 um NS NS NS NS 391 216 1310 adium NS NS NS 19 23.9 9.95 19.3	Lead	NS	63	400	7.32	9.47	3.93	7.25	3.62	16.3	9.61	5.94
ganese NS 1,600 2,000 325 310 155 738 Lury NS 0.18 0.81 ND ND ND ND el NS 30 310 48.6 64.6 88.5 41.4 ssium NS NS NS 503 885 335 618 um NS NS NS 391 216 1310 valum NS NS NS 193 193	Magnesium	NS	NS	NS	1,500	2,550	2,000	1,590	1,450	2,210	4,250	3,370
with NS 0.18 0.81 ND ND ND ND ND el NS 30 310 48.6 64.6 88.5 41.4 ssium NS NS 503 885 335 618 um NS NS 597 391 216 1310 adium NS NS 19 23.9 9.95 19.3	Manganese	SN	1,600	2,000	325	310	155	738	214	169	397	418
el NS 30 310 48.6 64.6 68.5 41.4 ssium NS NS 503 885 335 618 um NS NS 597 391 216 1310 adium NS NS 19 23.9 9.95 19.3	Mercury	SN	0.18	0.81	QN	0.003J	ND	QN	QN	0.004J	QN	Q
ssium NS NS S63 885 335 618 um NS NS 597 391 216 1310 adium NS NS 19 23.9 9.95 19.3	Nickel	SN	30	310	48.6	64.6	88.5	41.4	22.3	67.3	83.9	85.6
um NS NS 597 391 216 1310 nS NS NS 19 23.9 9.95 19.3	Potassium	NS	NS	NS	503	885	335	618	420	625	728	638
adium NS 19 23.9 9.95 19.3	Sodium	NS	NS	NS	269	391	216	1310	236	292	248	248
	Vanadium	NS	NS	NS	19	23.9	9.95	19.3	10.7	17.3	20.3	14.8
100 109 10,000 28.5 43.2 24.1 34.6	Zinc	100	109	10,000	28.5	43.2	24.1	34.6	20.3	30.3	40.6	28.3

HAZ-69

All concentrations are in milligrams per kilogram (mg/kg)

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

NS = No Standard

J = Compound detected below the quantitation limit

B = Compound was detected in an associated laboratory blank

N = Presumptive Evidence of Compound

BOLD = Concentration exceeds CP-51 SSCOs

Shading = Concentration exceeds Subpart 375-6 Unrestricted Use SCOs

Underline: = Concentration exceeds Subpart 375-6 Restricted-Residential Use SCOs

TAL metals analysis does not include the analysis of hexavalent chromium. However, this additional analysis was included for due diligence purposes.

ATC Associates Inc. DDC Project Number: SE803

March 16, 2012 Work Order Letter No. 7979-ATC-7513

Table 5. Summary of Pesticide Analytical Results in Soil
Phase II Subsurface Corridor Investigation for Sanitary, Storm Sewer, and Water Mains in Ramble Road
Staten Island, New York

	Subpart 375-6	φ	CP-51 Restricted Residential			Samp	Sample ID, Date Collected and Depth	lected and D	epth		
	Unrestricted Use	Restricted-	Supplemental	SB-2	SB-3	SB-5	SB-7	6-BS	SB-10	SB-11	SB-12
Pesticides	Soil Cleanup	Residential Use	Soil Cleanup	2/6/2012	2/10/2012	2/9/2012	2/8/2012	2/8/2012	2/8/2012	2/10/2012	2/6/2012
	(SCOs)	Objectives (SCOs)	Objectives (SSCOs)	0-50,	0-50,	0-50.	0-50.	0-20.	0-20,	0-20.	0-20.
A A' DOT	0 0033	6.2	NS	QN	QN	QN	QN	0.003	0.003	QN	0.0018JP
100.4	0.0033	13	SN	Q	Q	QN	ND	NO	Q	QN	2
4,4-DUD	0.0033	68	NS	QN	QN	QN	ND	QN	Q	QN	Q.
4,4-UUE	0.005	0.097	NS	QN	Q	QΝ	ND	Q	Q	QN	QN
Aulin	0.00	0.48	SN	Q	Q	QN	ND	QN	Q	2	Q
alpha-bho	0.036	0.36	SN	Q	QN	ON	ND	QN	9	2	Q
Jeha-Drio	0.094	4.2	SN	QN	QN	ND	Q	QN	Q	Q	Q
alpiia-ciliologiic	0.04	100	SN	QN	QN	ND	ON	QN	QN	Q	2
Oioldrin	0.005	0.2	SN	Q	QN	QN	ND	QN	QN	2	Q
יייייייייייייייייייייייייייייייייייייי	2000	2.4	NS	Q	QN	QN	ON	QN	QN	S	Q
Endosulran suirate	2.4	24	SN	Q	QN	Q.	QN	ON	ON ON	Q	Q
Endosuiran-I	2.4	17	SN	S	QN	Q.	2	QN	QN	QN	2
Endosultan-II	2.4	11	SN	Ę	QN	Q	QX	QN	QN	ND	Q
Endrin	0.014	UN	SN	Q	QN	QN	S	QN	QN	QN	Q
Endrin algenyde	SIN SIN	SN	SN	Q	QN	QN	QN	ND	Q	Q	QN
Endrin Ketorie	214	ON	SN	CZ	QN	QN	QN	QN	Q	Q	2
gamma-BHC (Lindane)	SN	ON ON	SN	S	QN	Q	QN	QN	ON	Q	QN
gamma-Chlordane	163	2.4	SN	QX	Q	QN	QN	ON	ON	Q	Q
Heptachior	0.04Z	ON	SN	QN	Q	Q	QN	QN	ND	QN	ON
Heptachior epoxide	SN SI	ON UN	ď.	Ę	Q	Q	QN	QN	QN	Q	QN
Methoxychior	S S	S VN	SN	Q	QN	Q	Q	QN	ND	ND	ND
loxaphene	NO.										

HAZ-70

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

J = Compound detected below the quantitation limit

B = Compound was detected in an associated laboratory blank

BOLD = Concentration exceeds CP-51 SSCOs

Shading = Concentration exceeds Subpart 375-6 Unrestricted Use SCOs

Underline: = Concentration exceeds Subpart 375-6 Restricted-Residential Use SCOs

ATC Associates Inc. DDC Project Number: SE803

March 16, 2012 Work Order Letter No. 7979-ATC-7513



New York City Department of Design and Construction Final Phase II Subsurface Corridor Investigation Sanitary, Storm Sewer, and Water Mains in Ramble Road, Staten Island, New York

Phase II Subsurface Corridor Investigation for Sanitary, Storm Sewer, and Water Mains in Ramble Road Table 6. Summary of Polychlorinated Biphenyls Analytical Results in Soil Staten Island, New York

	Subpart 375-6	Subpart 375-6	CP-51 Restricted			Samp	le ID, Date Co	Sample ID, Date Collected and Depth	pth		
Polychlorinated	Unrestricted Use	Restricted-Residential	Residential	SB-2	SB-3	SB-5	SB-7	SB-9	SB-10	SB-11	SB-12
Biphenyls	Soil Cleanup	esn	Supplemental Soil	2/6/2012	2/10/2012	2/9/2012	2/8/2012	2/8/2012	2/8/2012	2/10/2012	2/6/2012
•	Objectives (SCOs)	Soil Cleanup Objectives (SCOs)	(SSCOs)	0-20,	0-20.	0-20.	0-20.	0-20.	0-20.	0-20.	0-20
Aroclor-1016	0.1	1	SN	QN	GN	ON	ND	QN	ND	QN	ND
Aroclor-1221	0.1	-	SN	QN	QN	QN	ND .	ND	ND	ON	N
Aroclor-1232	0.1	-	SN	QN	QN	ON	ND	ND	ND	ND	ON O
Aroclor-1242	0.1		SN	ND	QN	QN	ND	ND	ND	ΩN	Q
Aroclor-1248	0.1	-	SN	ND	QN	QN	ND	ND	ND	ND	QN
Aroclor-1254	0.1	-	SN	ND	QN	ND	ND	0.052	0.052	ND	0.031
Aroclor-1260	0.1		SN	ND	QN	QN	ND	ND	ND	ND	ND
Aroclor-1262	0.1	-	SN	ND	QN	QN	ND	ND	ND	ND	S
Aroclor-1268	0.1	1	SN	ND	QN	ON	ND	ND	ND	ND	ND

HAZ-71

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

J = Compound detected below the quantitation limit

B = Compound was detected in an associated laboratory blank

BOLD = Concentration exceeds CP-51 SSCOs

Shading = Concentration exceeds Subpart 375-6 Unrestricted Use SCOs

Underline: = Concentration exceeds Subpart 375-6 Restricted-Residential Use SCOs

ATC Associates Inc. DDC Project Number: SE803



Table 7. Summary of Waste Characterization Sample Analysis of Soil Phase II Subsurface Corridor Investigation for Sanitary, Storm Sewer, and Water Mains in Ramble Road Staten Island, New York

*	RCRA		Sai	mple ID, Date Collected and Bori	ngs
Parameter	Hazardous W		WC-1 2/8/2012	WC-2 2/9/2012	WC-3 2/10/2012
			SB-1, SB-2, SB-9, SB-10	SB-6, SB-7, SB-8, SB-12	SB-3, SB-4, SB-5, SB-11
RCRA Characteristics			ND	ND	ND
Reactivity Cyanide	250	mg/kg	ND	ND	ND
Reactivity Sulfide	500 mg/lg	mg/kg	ND	ND	ND
Flash Point - Liquid/Solid	140	°F	ND	ND	ND
pH (Corrosivity)	>2 and < 12.5	S.U.	6.31	6.47	6.98
1,1-Dichloroethene	0.7	mg/L	ND	ND	ND
1,2-Dichloroethane	0.5	mg/L	ND	ND	ND
2-Butanone	200	mg/L	ND	ND	ND
Benzene	0.5	mg/L	ND	ND ND	ND
Carbon Tetrachloride	5	mg/L	ND	ND	ND
Chlorobenzene	100	mg/L	ND	ND	ND
Chloroform	6	mg/L	ND	ND	ND
Tetrachloroethene	0.7	mg/L	ND	ND	ND
Trichloroethene	0.5	mg/L	ND	ND	ND
Vinyl Chloride	0.2	mg/L	ND	ND	ND
1,4-Dichlorobenzene	7.5	mg/L	ND	ND	ND
2,4,5-Trichlorophenol	400	mg/L	ND	ND	ND
2,4,6-Trichlorophenol	2	mg/L	ND	ND	ND
2,4-Dinitrotoluene	0.13	mg/L	ND	ND	ND
2-Methylphenol	200	mg/L	ND	ND	ND
3+4-Methylphenols	200	mg/L	ND	ND	ND
Hexachlorobenzene	0.13	mg/L	ND	ND	ND
Hexachlorobutadiene	0.5	mg/L	ND	ND ND	ND
Hexachloroethane	3	. mg/L	ND	ND	ND
Nitrobenzene	2	mg/L	ND	ND	ND
Pentachlorophenol	100	mg/L	ND	ND	ND
Pyridine	5	mg/L	ND	ND	ND
2,4,5-TP (SILVEX)	1	mg/L	ND	ND	ND
2,4-D	10	mg/L	ND	ND	ND
Chlordane	0.03	mg/L	ND	ND	ND
Endrin	0.02	mg/L	ND	ND	ND
gamma-BHC	0.4	mg/L	ND	ND	ND
Heptachlor	0.008	mg/L	ND	ND	ND
Heptachlor epoxide	0.008	mg/L	ND	ND	ND
Methoxychlor	10	mg/L	ND	ND	ND
Toxaphene	0.5	mg/L	ND	ND	ND
Arsenic	5	mg/L	ND	ND	ND
Barium	100	mg/L	0.257J	0.375J	0.308J
Cadmium	1	mg/L	ND	ND	ND
Chromium	5	mg/L	ND	ND	ND
Lead	5	mg/L	ND	ND	ND
Mercury	0.2	mg/L	ND	ND	ND
Selenium	1	mg/L	ND	ND	ND
Silver	5	mg/L	ND	ND	ND
GRO	NS	mg/kg	ND	ND	ND
DRO	NS	mg/kg	145,976	5,835	5.816

NS = No Standard

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

BOLD and Shaded = Concentration failed TCLP analysis

F = Degrees Fahrenheit

S.U. = Standard Units

N = Presumptive Evidence of a Compound

ATC Associates Inc.

DDC Project Number: SE803

March 16, 2012

Work Order Letter No. 7979-ATC-7513



Table 8. Summary of NYCDEP Parameters Analyzed in Groundwater Samples Phase II Subsurface Corridor Investigation for Sanitary, Storm Sewer, and Water Mains in Ramble Road Staten Island, New York

	NYC DEP L	imitations	Well ID, D	ate Collected and Depth	to Water
Parameter ¹	to Sani	tary or	SB-5 WS	SB-9 WS	SB-12 WS
	Combine	d Sewers	2/10/2012	2/9/2012	2/9/2012
			12'	11'	8'
Non-Polar Material ²	50	mg/L	ND	5.2	6.4
pH	5-12	SU	5.66	6.82	5.67
Temperature	< 150	°F	57.74	61.34	61.16
Flash Point - Liquid/Solid	> 140	°F	> 150	> 150	> 150
Cadmium (Instantaneous or Composite)	2 or 0.69	mg/L	0.164	0.0883	0.0192
Chromium Hexavalent (VI)	5	mg/L	ND	ND	ND
Copper	5	mg/L	3.68	2.15	0.0868
Lead	2	mg/L	1.87	0.679	0.0487
Mercury	0.05	mg/L	0.00407	0.00157	0.00019
Nickel	3	mg/L	14.3	5.78	0.534
Zinc	. 5	mg/L	4.35	3.05	0.27
Benzene	134	□g/L	ND	7.9	ND
Carbon Tetrachloride	NS	□g/L.	ND	ND	ND
Chloroform	NS	□g/L	ND	ND	ND
1,4 Dichlorobenzene	NS	□g/L	ND	ND	ND
Ethylbenzene	380	□g/L	ND	ND	ND
MTBE (Methyl-Tert-Butyl-Ether)	50	□g/L	0.6J	ND	ND
Naphthalene	47	□g/L	ND	ND	ND
Phenol	NS	□g/L	ND	21J	20
trachloroethene	20	□g/L	ND	. ND	ND
luene	74	□g/L	24	14	1.1J
1,2,4 Trichlorobenzene	NS	□g/L	ND	ND	ND
1,1,1 Trichloroethane	NS	□g/L	ND	ND	ND
Xylenes (Total)	74	□g/L	ND	ND	ND
PCBs (Total) ³	1 1	□g/L	ND	ND	ND
Total Suspended Solids	350	mg/L	1,300	34,000	1,200
CBOD⁵	NS	mg/L	14	7.9	14
Chłoride ⁵	NS	mg/L	520	330	1,800
Total Nitrogen⁵	NS	mg/L	6.5	1.77	2.2
Total Solids⁵	NS	mg/L	2,190	45,900	4,950

Notes:

All concentrations are reported in milligrams per liter (mg/L) or micrograms per liter (mg/L)

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

Bold = Positive detection

Shaded = Concentration exceeds NYCDEP Limitations for Effluent to Sanitary or Combined Sewers (daily limit)

OR = Over Range

- * = Values outside of QC limits
- 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 608 with method detection limit =<65 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 discarge >= 10,000 gpd

ATC Associates Inc.

DDC Project Number: SE803

March 16, 2012

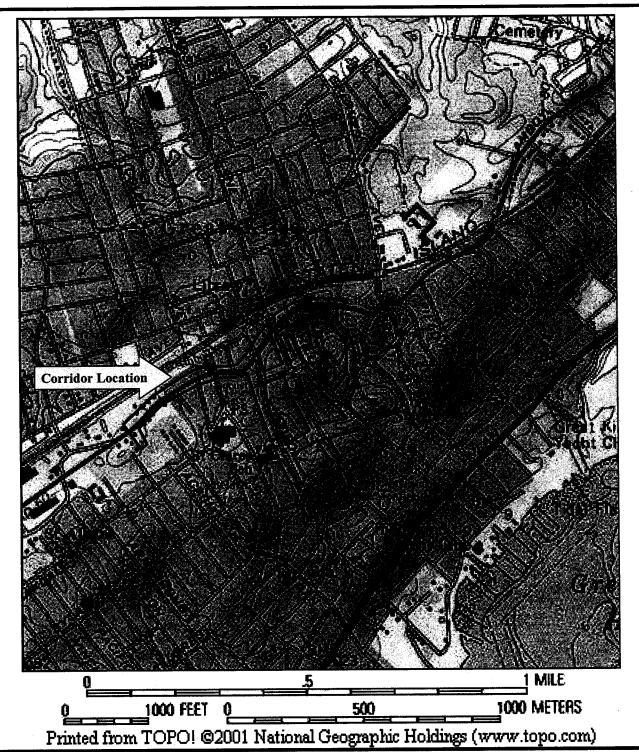
Work Order Letter No. 7979-ATC-7513



FIGURE 1 – TOPOGRAPHIC CORRIDOR LOCATION MAP

ATC Associates, Inc.
DDC CAPIS ID No. SE803

March 16, 2012 Work Order Letter No. 7979-ATC-7513







Reference: U.S.G.S. Quadrangle Map: Arthur Kill, NY-NJ (dated 1966, photorevised 1981)

FIGURE 1 – TOPOGRAPHIC CORRIDOR LOCATION MAP

PROJECT NAME: Sanitary, Storm Sewer, and Water Mains in Ramble Road

BOROUGH, STATE: Staten Island, NY **ATC PROJECT NO.:** 015.38500.0125

DDC REGISTRATION CONTRACT NO.: 20090016802

DDC PROJECT NO.: SE803



FIGURE 2 – SAMPLE LOCATION PLAN

ATC Associates, Inc. DDC CAPIS ID No. SE803 March 16, 2012 Work Order Letter No. 7979-ATC-7513

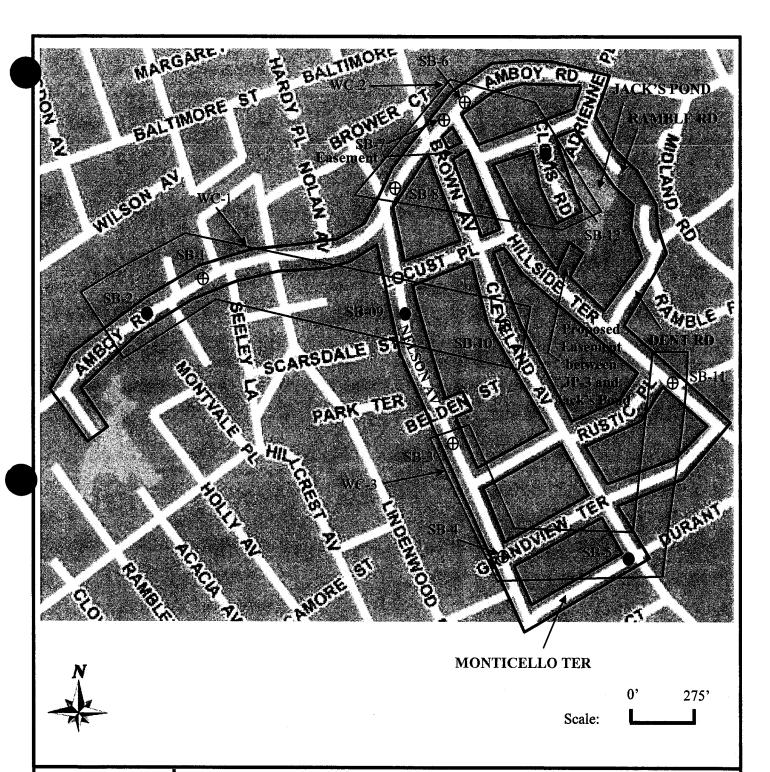




FIGURE 2 – SAMPLE LOCATION PLAN

LEGEND:

 \oplus

Corridor

WC - X Soil Boring Locations for waste soil characterization

PROJECT NAME: Sanitary and Storm Sewer in Ramble Road

BOROUGH, STATE: Staten Island, NY **ATC PROJECT NO.:** 015.38500.0125

DDC REGISTRATION CONTRACT NO.: 20090016802

DDC PROJECT NO.: SE803

DDC WORK ORDER NO.: 7979-ATC-7513

Soil Boring Locations (red

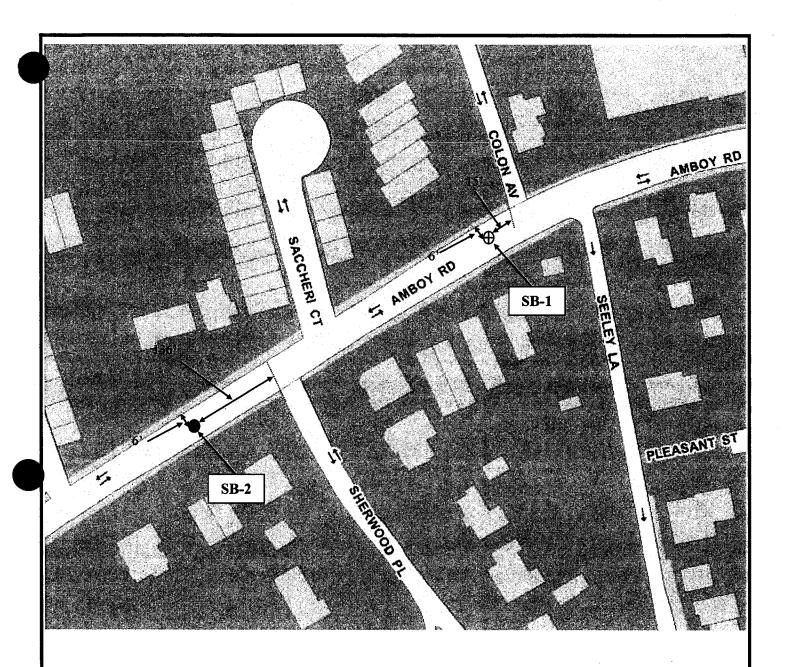
shading indicates TWP)



APPENDIX A BORING LOCATION SKETCHES

ATC Associates, Inc.
DDC CAPIS ID No. SE803

March 16, 2012 Work Order Letter No. 7979-ATC-7513









Appendix A - Boring Location Sketch

LEGEND:

Moderate Risk Soil Boring with temporary well point installed

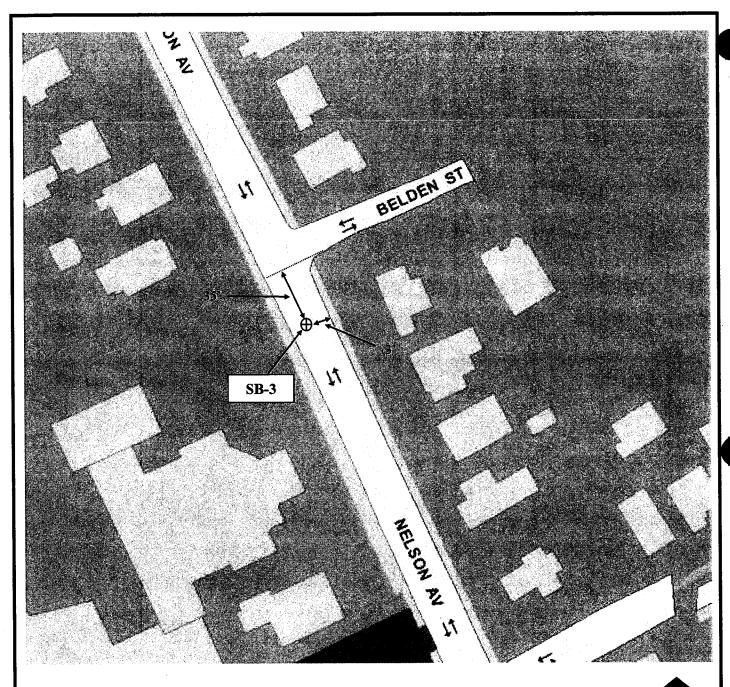
← Moderate Risk Soil Boring

PROJECT NAME: Storm and Sanitary Sewers in Ramble Road BOROUGH, STATE: Staten Island, NY

ATC PROJECT NO.: 015.38500.0125

DDC REGISTRATION CONTRACT NO.: 20090016802

DDC PROJECT NO.: SE803









Appendix A - Boring Location Sketch

LEGEND:

PROJECT NAME: Storm and Sanitary Sewers in Ramble Road

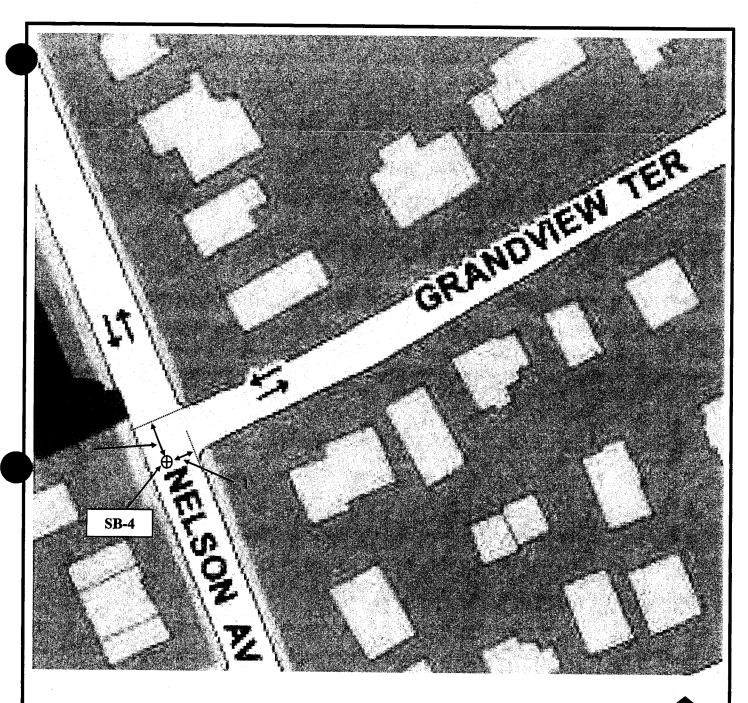
BOROUGH, STATE: Staten Island, NY **ATC PROJECT NO.:** 015.38500.0125

DDC REGISTRATION CONTRACT NO.: 20090016802

DDC PROJECT NO.: SE803

DDC WORK ORDER NO.: 7979-ATC-7513

Page 2 of 9







NEW YORK CITY DEPARTMENT OF DESIGN + CONSTRUCTION

Appendix A - Boring Location Sketch

LEGEND:

⊕ Moderate Risk Soil Boring

PROJECT NAME: Storm and Sanitary Sewers in Ramble Road

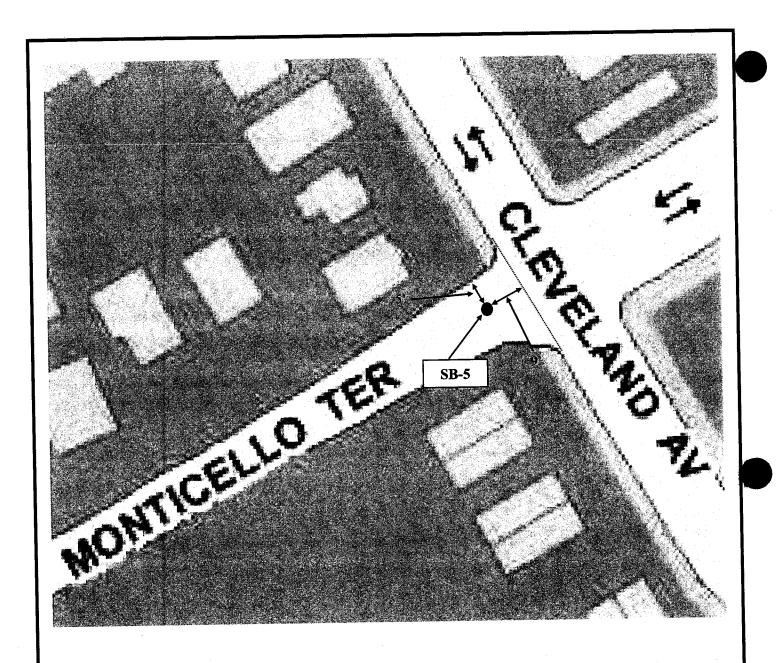
BOROUGH, STATE: Staten Island, NY ATC PROJECT NO.: 015.38500.0125

DDC REGISTRATION CONTRACT NO.: 20090016802

DDC PROJECT NO.: SE803

DDC WORK ORDER NO.: 7979-ATC-7513

Page 3 oof 9





Appendix A - Boring Location Sketch





LEGEND:

Moderate Risk Soil Boring with temporary well point installed

PROJECT NAME: Storm and Sanitary Sewers in Ramble Road

BOROUGH, STATE: Staten Island, NY ATC PROJECT NO.: 015.38500.0125

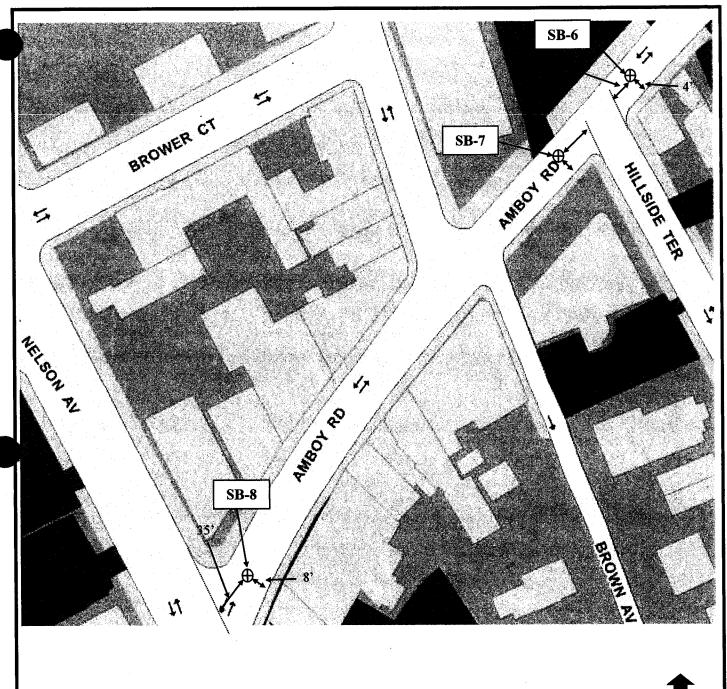
DDC REGISTRATION CONTRACT NO.: 20090016802

DDC PROJECT NO. : SE803

DDC WORK ORDER NO.: 7979-ATC-7513

Page 4 of 9

HAZ-82









Appendix A - Boring Location Sketch

LEGEND:

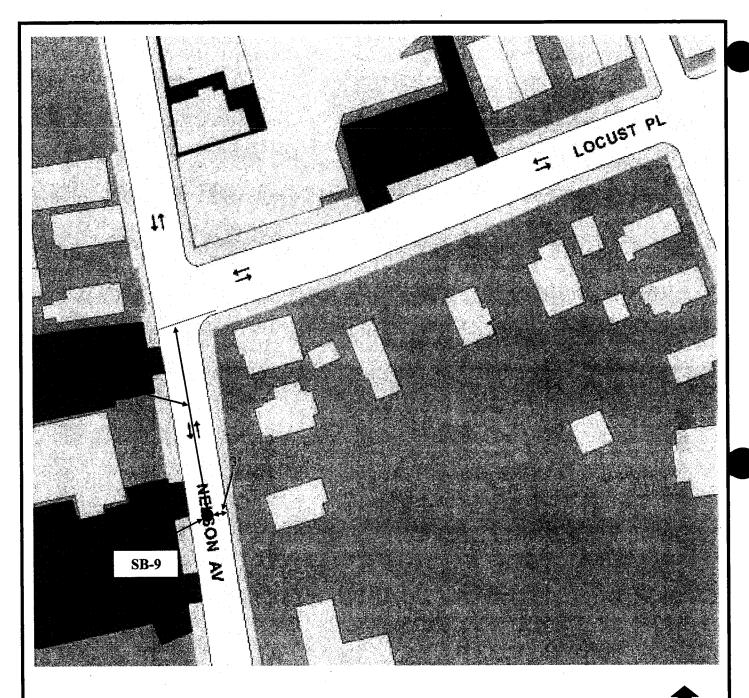
⊕ Moderate Risk Soil Boring

PROJECT NAME: Storm and Sanitary Sewers in Ramble Road

BOROUGH, STATE: Staten Island, NY **ATC PROJECT NO.:** 015.38500.0125

DDC REGISTRATION CONTRACT NO.: 20090016802

DDC PROJECT NO.: SE803



NORTH

- Not To Scale -

Appendix A - Boring Location Sketch



Environmental Concern (fill)

PROJECT NAME: Storm and Sanitary Sewers in Ramble Road

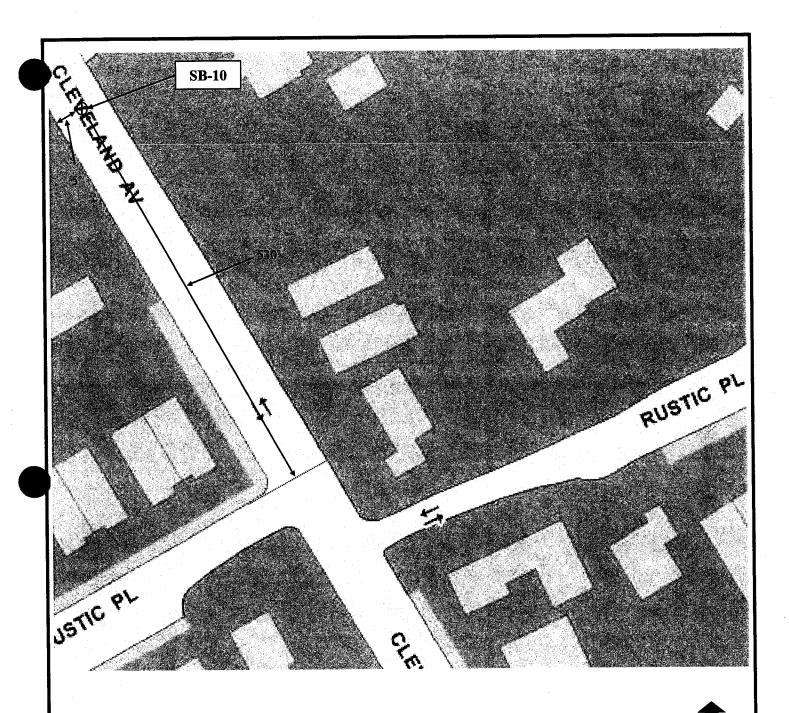
BOROUGH, STATE: Staten Island, NY **ATC PROJECT NO.:** 015.38500.0125

DDC REGISTRATION CONTRACT NO.: 20090016802

DDC PROJECT NO.: SE803

DDC WORK ORDER NO.: 7979-ATC-7513

NEW YORK CITY DEPARTMENT OF DESIGN + CONSTRUCTION







Appendix A - Boring Location Sketch

LEGEND:

Environmental Concern (fill)

PROJECT NAME: Storm and Sanitary Sewers in Ramble Road

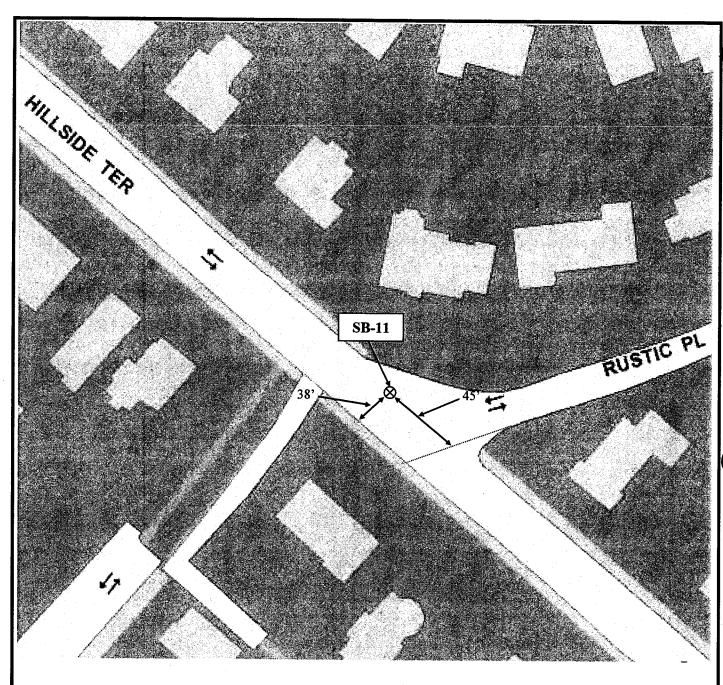
BOROUGH, STATE: Staten Island, NY ATC PROJECT NO.: 015.38500.0125

DDC REGISTRATION CONTRACT NO.: 20090016802

DDC PROJECT NO.: SE803

DDC WORK ORDER NO.: 7979-ATC-7513

Page 7 of 9 HAZ - 85









Appendix A - Boring Location Sketch

LEGEND:

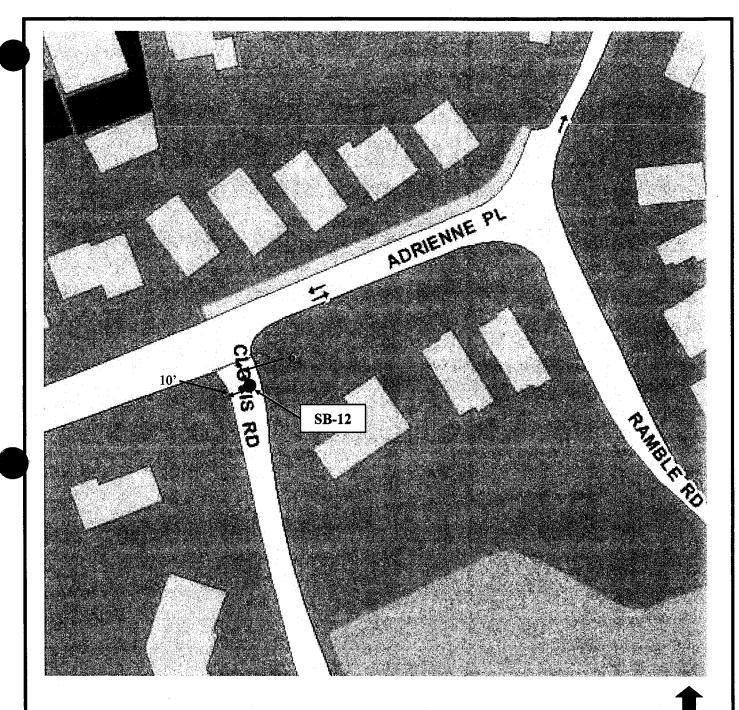
⊗ Environmental Concern (fill)

PROJECT NAME: Storm and Sanitary Sewers in Ramble Road

BOROUGH, STATE: Staten Island, NY **ATC PROJECT NO.:** 015.38500.0125

DDC REGISTRATION CONTRACT NO.: 20090016802

DDC PROJECT NO.: SE803









Appendix A - Boring Location Sketch

LEGEND:

Environmental Concern (fill) with temporary well point installed

PROJECT NAME: Storm and Sanitary Sewers in Ramble Road

BOROUGH, STATE: Staten Island, NY **ATC PROJECT NO.**: 015.38500.0125

DDC REGISTRATION CONTRACT NO.: 20090016802

DDC PROJECT NO.: SE803



APPENDIX B GEOLOGIC BORING LOGS

88-5AH

					BORING	LOG	
	ATC As	sociat	tes Inc	2.	Client:	New York City Department of Design & Construction	Boring No.:
		st 25th S			DDC Project No:	SE803	Project Location: Staten Island, NY
-	New Yo	rk, NY	10010		DDC Task No.:	7979-ATC-7513	Boring Location:
	212-	-353-828	80		ATC Project No.:	015.38500.0125	Advanced in Amboy Road, 15 feet west-
Driller: W	arren George In	nc.			Drilling Method:	Vactron, and Post Hole	southwest of the western curbline of Colon Avenue and 6 feet south-southeast of the
	Denise Cosenz				Sampling Method:	Digger / Drill Rig Macro Core	northern curbline of Amboy Road.
	iter: Not Enco				Sampling Method.	111010 0010	Date: 2/6/12, 2/7/12
	Well Point	Sample	Recovery	PID Reading			
Depth (ft.)	Construction	Interval	(ft.)	(ppm)		Lithology and Field O	bservations
0					0-7" - Asphalt		
ļ				į	7"-1'3" - Concrete/st	one subbase ctron and post hole digger	
			1		0-6 - Cleared via va	ction and post note digger	
			1 ⁴	0			
	•				1128 Cl. Daddick Da	own, silty SAND, trace gravel a	nd aabbles (fill material)
4					1'3"-6' - Readish Br	own, slity SAND, trace gravel a	nd cooples (IIII material)
	<u> </u>						
l			1`				
	4 0				6'-8' - Reddish Brow	vn silty SAND - moist at 8'	•
						·	
8							
·					8'-14' - Reddish Bro	wn CLAY with some gravel	•
			1				
ł			{				•
			4	0			
]				
12	•	 	-				
					1		
			1				
			1		14'-16' - Reddish Bı	rown medium SAND	
•			3	0		,	
			4				
16			1				
					Refusal at 16'		
	-	<u> </u>	-		Boring completed a	t a depth of 16 feet	
		—	1				
	1]				
1			4		1		
20	<u> </u>		<u> </u>				
1		1					
1							
		1					
		ł					
		J			<u> </u>		

			BOR	ING ANI	TEMPORAF	RY WELL POINT LO	G	· · · - · · · · · · · · · · · · · · · · · · ·
	ATC As	socia	tes Inc	c.	Client:	New York City Department of Design & Construction	D D D	Boring No.: SB-2
	104 Eas				DDC Project No:	SE803	Project Location:	
	New Yo				DDC Task No.:	7979-ATC-7513	Boring Location:	
	212-	353-828	30		ATC Project No.:	015.38500.0125	Advanced in Amboy	Road, 136 feet west-
Driller: W	arren George Ir	nc.			Drilling Method:	Vactron, and Post Hole Digger / Geoprobe		9 feet south-southeast
Inspector:	Denise Cosenz	za			Sampling Method:		of the northern curbl	ine of Amboy Road.
Groundwa	ater: Not Enco	untered					Date: 2/6/2012, 2	7/12, 2/9/12, 2/10/12
Depth (ft.)	Well Point Construction	Sample Interval	Recovery (ft.)	PID Reading (ppm)		Lithology and Field O	bservations	
0					0-7" - Asphalt			
					7"-1'4" - Concrete/st	one subbase ctron and post hole digger		
			4		0-0 - Cicarca via va	each and post hole digger		
			1	0	1			•
l			1		1'4"- 9' - Reddish Bı	own, fine SAND, trace gravel (1	fill material)	
4]			
ł			ł					
	Screen		j					
			4	0				
			1					
					Moist at 7' *			
8					01201 B-16	A. OH T A. A		
			ł		9-20' - Red fine san	dy SILT with trace clay		
			1					
			3	0				
				ŀ		•		
							•	
12			ļ		1			
l								
			1					
			4	0				
			1					
16			-					
- 10					1			
l]					
			┨	0				
			_		l			
		19.5-20'	-					
20		0-20'	1		Boring completed a	t a depth of 20 feet		
					Total Depth: 10 fee Diameter: 2 inch Riser Interval: No Screen Interval: 0- Slot Size: #10	ne 10 feet		
1					Date Installed: Feb		uat / icci	
					Date Abandoned:	February 10, 2012		
	<u> </u>				-Groundwater samp	ole not collected due to the poor	recnarge of perched	water table

				<u> </u>	BORING	LOG	
	ATC As	sociat	tes Inc	c.	Client:	New York City Department of Design & Construction	Boring No.: SB-3
	104 Ea:				DDC Project No:	SE803	Project Location: Staten Island, NY
	New Yo	rk, NY	10010		DDC Task No.:	7979-ATC-7513	Boring Location:
	212-	-353-828	80		ATC Project No.:	015.38500.0125	Advanced in Nelson Avenue, 35 feet south-
Driller: Wa	arren George II	nc.			Drilling Method:	Vactron, and Post Hole Digger / Drill Rig	southeast of the southern curbline of Belden Street and 3 feet west-southwest of the
Inspector:	Denise Cosenz	a			Sampling Method:		eastern curbline of Nelson Avenue.
Groundwa	ter: 8 feet						Date: 2/1/12, 2/10/12
Depth (ft.)	Well Point Construction	Sample Interval	Recovery (ft.)	PID Reading (ppm)		Lithology and Field O	bservations
0			4	0		cone subbase ctron and post hole digger SAND, with gravel (fill materia	al)
8 ▼		7.5-8'	4	0	Groundwater encour	on medium to fine SAND	
12	4 0				8'-16'6" - Reddish B	rown fine SAND	
16			4	0			
20		0-16.5	0.5	0	Refusal at 16.5' Boring completed at	t a depth of 16.5 feet	

-					BORING	LOG	
,	ATC As	sociat	es Inc	С.	Client:	New York City Department of Design & Construction	Boring No.: SB-4
		st 25th S		••	DDC Project No:	SE803	Project Location: Staten Island, NY
	New Yo	-			DDC Task No.:	7979-ATC-7513	Boring Location:
	212	-353-828	80		ATC Project No.:	015.38500.0125	Advanced in Nelson Avenue, 5 feet south-
Driller: W	arren George li	ıc.			Drilling Method:	Vactron, and Post Hole Digger / Drill Rig	southeast of the northern curbline of Grandview Terrace and 1 feet west- southwest of the eastern curbline of
	Denise Cosenz	za .			Sampling Method:	Macro Core	Nelson Avenue.
Groundwa	ter: 19 feet					· · · · · · · · · · · · · · · · · · ·	Date: 2/1/12, 2/10/12
Depth (ft.)	Well Point Construction	Sample Interval	Recovery (ft.)	PID Reading (ppm)		Lithology and Field Obse	ervations
0			4	0		ne subbase ron and post hole digger vn, medium SAND, trace gravel and	d cobbles (fill material)
8	,		4	0	6'-20' - Reddish Browi		
4 0							
16			4	0			
<u>▼</u> 20			3	0	Groundwater encount Boring completed at a	ered at approximately 19'	•

			BORI	NG AND	TEMPORAR	Y WELL POINT LO	3
	ATC As	sociat	es Inc	c.	Client:	New York City Department of Design & Construction	Boring No.: SB-5
	104 Eas	it 25th S	treet		DDC Project No:	SE803	Project Location: Staten Island, NY
	New Yo	-			DDC Task No.:	7979-ATC-7513	Boring Location:
	212-	353-828	30		ATC Project No.:	015.38500.0125	Advanced in Monticello Terrace, 9 feet west-southwest of the western curbline of
Driller: Wa	arren George Ir	ıc.			Drilling Method:	Vactron, and Post Hole Digger / Drill Rig	Cleveland Avenue and 5 feet south- southeast of the northern curbline of
Inspector:	Denise Cosenz	a			Sampling Method:	Macro Core	Monticello Terrace.
Groundwa	ter: 12 feet			•	·		Date: 2/2/2012, 2/9/2012, 2/10/2012
Depth (ft.)	Well Point Construction	Sample Interval	Recovery (ft.)	PID Reading (ppm)		Lithology and Field Ol	oservations
0					0-7" - Asphalt 7"- 5' - Brown, med	lium SAND, trace gravel (fill ma	terial)
					0-6' - Cleared via va	ctron and post hole digger	·
			4	0			
				·			
4							ı
 					5'-13' - Grey CLAY		·
•	Riser				1		
•							
	4 0						
8	8						
					1		
j l							·
			4	0			
			"	"			
12 ▼		11.5-12'			Groundwater encour	ntered at approximately 12'	
			ľ				
				[
	C		4	0	13' - 19' Brown, med	dium to fine SAND, trace gravel	
	Screen		ł				
16					1		
			1			· ·	
			ŀ		l	*	
			4	0			
			1		l		
20		0-20'	1		19'-20' - silty SAND Boring completed at		l l
					Total Depth: 20 fee Diameter: 2 inch Riser Interval: 0-10 Screen Interval: 10 Slot Size: #10 Depth to Groundw Date Installed: Fee Date Abandoned:	Temporary Well Point Conet 0 feet 0-20 feet vater: 12 feet bruary 9, 2012	struction Details

					BORING	LOG	
	ATC As	socia	tes Inc	c.	Client:	New York City Department of Design & Construction	Boring No.: SB-6
	104 Ea	st 25th S	Street		DDC Project No:	SE803	Project Location: Staten Island, NY
	New Yo	-			DDC Task No.:	7979-ATC-7513	Boring Location:
	212	-353-828	30		ATC Project No.:	015.38500.0125	Advanced in Amboy Road, 25 feet east-
Driller: W	arren George I	nc.	777.0		Drilling Method:	Vactron, and Post Hole Digger / Drill Rig	northeast of the eastern curbline of Hillside Terrace and 4 feet northwest of the southern
Inspector:	Denise Cosen	za			Sampling Method:		curbline of Amboy Road.
Groundwa	ter: 10 feet						Date: 2/3/12, 2/7/12
Depth (ft.)	Well Point Construction	Sample Interval	Recovery (ft.)	PID Reading (ppm)		Lithology and Field O	bservations
0					0-5" - Asphalt		
			1		5"-11" - Concrete/st 0-6' - Cleared via va	one subbase ctron and post hole digger	
			4		- Danieu viu vu	and poor note digger	
				0			
					11"-12' - Reddish B	rown, CLAY	
4							
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4 0							
8					ł		
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<u>v</u>					Gannadayyatan an assa		
<u> </u>			3	0	Groundwater encour	ntered at approximately 10'	
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12					•		
					12' - 20' - Reddisn Bronw	n, fine SAND with trace gravel	
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			4	0			
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16				·	·		
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			4	0	ł		
			1				
20					Boring completed at	a denth of 20 feet	
20			I		Doring completed at	a depth of 20 lect	<u> </u>
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	1				İ		

			BOR	NG AND	TEMPORAF	RY WELL POINT LO	G .
	ATC As	sociat	tes Inc	с.	Client:	New York City Department of Design & Construction	Boring No.: SB-7
	104 Eas	st 25th S	treet		DDC Project No:	SE803	Project Location: Staten Island, NY
	New Yo				DDC Task No.:	7979-ATC-7513	Boring Location:
	212	-353-828	30		ATC Project No.:	015.38500.0125	Advanced in Amboy Road, 40 feet west-
Driller: W	arren George II	nc.			Drilling Method:	Vactron, and Post Hole Digger / Drill Rig	southwest of the western curbline of Hillside Terrace and 12 feet northwest of the
Inspector:	Denise Cosena	za			Sampling Method:		southern curbline of Amboy Road.
Groundwa	iter: 10 feet						Date: 2/3/12, 2/7/12
Depth (ft.)	Well Point Construction	Sample Interval	Recovery (ft.)	PID Reading (ppm)		Lithology and Field O	bservations
0					0-5" - Asphalt	· · · · · · · · · · · · · · · · · · ·	
			<u> </u>		5"-11" - Concrete/st	one subbase ctron and post hole digger	
•			4			out on and post note digger	•
	·	-		. 0			
			1		11"-6' - Reddish Bro	own, medium SAND, trace grav	el and cobbles (fill material)
4							
			1				• •
			4	0	6'-10' - Reddish Bro	wn CLAY	
					10.10 110000000000000000000000000000000	WI OZNII	
8	8						
					1		
		<u> </u>					
			4	0			
▼		9.5-10'	i i		Groundwater encoun	ntered at approximately 10' own fine SAND with trace grav	ام
			1		10-16 - Reddish Bi	own line SAND with trace grav	CI
12		ļ	ļ	<u> </u>	·	•	
			j				
			ł			,	
			3	0			
16							
		-	1				
			3	0	18' - 20' - Redish Br	own cilty SAND	-
			1	"	10 - 20 - Redish Bi	own, siny sand	, ,
20		0-20'			Boring completed a	to double of 20 fort	
20		0-40	<u> </u>	ı	Porms combleted a	i a ucpili di 20 leci	
					·		

	· · · · ·		BOR	ING AND	TEMPORAF	RY WELL POINT LO	G
	ATC As	sociat	tes Inc	c.	Client:	New York City Department of Design & Construction	Boring No.:
_	.104 Eas				DDC Project No:	SE803	Project Location: Staten Island, NY
	New Yo				DDC Task No.:	7979-ATC-7513	Boring Location:
	212-	-353-828	30		ATC Project No.:	015.38500.0125	Advanced in Amboy Road, 35 feet northeas
Driller: Wa	arren George II	nc.			Drilling Method:	Vactron, and Post Hole Digger / Drill Rig	of the eastern curbline of Nelson Avenue and 8 feet northwest of the southern
nspector:	Denise Cosenz	za			Sampling Method:		curbline of Amboy Road.
Groundwa	ter: 14 feet						Date: 2/3/12, 2/7/12
Depth (ft.)	Well Point Construction	Sample Interval	Recovery (ft.)	PID Reading (ppm)		Lithology and Field O	Observations
0					0-7" - Asphalt		
			}		7"'-1" - Concrete/sto 0-6' - Cleared via va	one subbase actron and post hole digger	
			4			-	
				0			
]		1"-8' - Reddish Brov	wn, silty SAND, trace gravel (fil	ll material)
4							
			1		1		
			1				
	3 0						
8	8						
					8'-20' - Reddish Bro	own CLAY with trace gravel	
		-	· ·				
			3	0		•	
			1				
			1	1			
12	<u></u>		<u> </u>		-		
	Ī		1				
y		 	1		Groundwater encou	intered at approximately 14'	
-			3	0			
	1		-				•
16					1		
		<u> </u>	-		1		
			1		ł		
			3	0			
			j				
20			-		Boring completed a	at a depth of 20 feet	
20		1			Doring completed a	n a copia of my 100t	
					·		

			BOR	NG AND	TEMPORAR	TEMPORARY WELL POINT LOG				
	ATC As	sociat	es In	c.	Client:	New York City Department of Design & Construction	Boring No.: SB-9			
	104 Eas	t 25th S	treet		DDC Project No:	SE803	Project Location: Staten Island, NY			
	New Yo	r k, NY 1	10010		DDC Task No.:	7979-ATC-7513	Boring Location:			
	212-	353-828	80		ATC Project No.:	015.38500.0125	Advanced in Nelson Avenue, 150 feet south-			
Driller: Wa	arren George In	c.		,	Drilling Method:	Vactron, and Post Hole Digger / Drill Rig	southwest of the southern curbline of Locust Place and 3 feet west of the eastern curbline			
Inspector:	Denise Cosenz	a			Sampling Method:		of Nelson Avenue.			
	ter: 11 feet						Date: 2/1/2012, 2/8/2012, 2/9/12			
Depth (ft.)	Well Point Construction	Sample Interval	Recovery (ft.)	PID Reading (ppm)		Lithology and Field O	bservations			
0			<u> </u>		0-6" - Asphalt					
			·		6"-1'4" - Concrete/st	tone subbase ctron and post hole digger				
			4		o o comou via via	Suon and post note a BB-				
				0						
			1		1'4"- 6' - Reddish Br	rown, medium SAND, trace gra	vel and cobbles (fill material)			
4	Riser				1					
			ł							
			1							
			3	0	6' - 10' - Reddish Br	own fine SAND with trace grav	rel			
	,]		ļ					
8			1							
]					
			1							
			4	0	10'-15' - Reddish Bı	rown Clay				
_		10.5-11	1	ļ	Groundwater encountered at approximately 11'					
12			-].						
	Screen				1					
			-	1.						
			1 ₄	0						
			1							
			1		15'-20' - Reddish B	rown medium to fine SAND				
16		 	 	+	1					
			1							
		 	┪ ,	0	1					
l			_							
			1							
20		0-20'	<u></u>		Boring completed a	at a depth of 20 feet Temporary Well Point Co	nstruction Details			
					Total Depth: 18 fe Diameter: 2 inch Riser Interval: 0-8 Screen Interval: 8 Slot Size: #10 Depth to Ground Date Installed: Fe Date Abandoned:	set 3 feet -18 feet water: 11 feet bruary 8, 2012	AND THE PROPERTY OF THE PROPER			

			BOR	ING ANI	D TEMPORAR	RY WELL POINT LO	G		
ATC Associates Inc. 104 East 25th Street					Client:	New York City Department of Design & Construction	Boring No.: SB-10		
					DDC Project No:	SE803	Project Location: Staten Island, NY		
		rk, NY			DDC Task No.:	7979-ATC-7513	Boring Location:		
	212	-353-828	30		ATC Project No.:	015.38500.0125	Advanced in Cleveland Avenue, 530 feet		
Driller: Warren George Inc.					Drilling Method:	Vactron, and Post Hole Digger / Drill Rig	northwest of the northern curbline of Rust Place and 4 feet east-northeast of the western curbline of Cleveland Avenue.		
Inspector: Denise Cosenza					Sampling Method:				
Groundwa	ter: 8 feet						Date: 2/2/12, 2/7/12		
Depth (ft.)						Lithology and Field O	bservations		
0					0-7" - Asphalt				
						n, medium SAND with trace gra	avel and cobbles (fill material)		
			4	_	0-6' - Cleared via vac	ctron and post hole digger			
				0		•			
4									
		_							
			2	0	6'-7' - Sand with orga	anic material			
				į	7'-8' - Brown CLAY				
8 ▼		7.5-8'				ntered at approximately 8'			
					8'-20' - Brown CLAY	Y with trace gravel			
			2	0					
12									
	•								
		,	4	0					
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16									
							•		
			3	_					
				0					
20		0-20'				1 1 000 0			
۷۵		U-2U	L		Boring completed at	a depth of 20 feet			
				į					

BORING AND TEMPORARY WELL POINT LOG									
	ATC As	sociat	tes Inc	с.	Client:	New York City Department of Design & Construction	Boring No.:		
	104 Ea:	st 25th S	Street		DDC Project No:	SE803	Project Location: Staten Island, NY		
i	New Yo				DDC Task No.:	7979-ATC-7513	Boring Location:		
	212-	-353-828	80		ATC Project No.:	015.38500.0125	Advanced in Hillside Terrace, 45 feet		
Driller: W	arren George In	nc.		-	Drilling Method:	Vactron, and Post Hole Digger / Drill Rig	northwest of the southern curbline of Rustic Place and 38 feet northeast of the western		
Inspector:	Denise Cosenz	za			Sampling Method:		curbline of Hillside Terrace.		
Groundwa	ter: 12 feet						Date: 2/2/12, 2/10/12		
Depth (ft.)	Well Point Construction	Sample Interval	Recovery (ft.)	PID Reading (ppm)		Lithology and Field O	bservations		
0					0-7" - Asphalt	wn, medium SAND, trace grave	l and ashblas (Gil material)		
					7 -0 - Reddish Blo	wn, medium SAND, trace grave	and coories (IIII material)		
			4	0	0-6' - Cleared via va	ctron and post hole digger			
4					·				
					ł				
					1				
			4	0			·		
]]	ľ	6'-13' - Grey CLAY				
					1				
8				•					
			3	0	1				
12_▼	-	11.5-12'			Groundwater encour	ntered at approximately 12'			
			1		13'-20' - Reddish Brown medium to fine SAND with trace gravel				
			4	0					
16					J				
]				
			4	0					
				ľ					
20		0-20'			Boring completed at	a denth of 20 feet			
			<u></u>		Doring vompreed a	a depar of 20 feet			
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L									

			BOR	NG ANI	TEMPORAF	RY WELL POINT LO	G		
	ATC As	sociat	tes Inc	c.	Client:	New York City Department of Design & Construction	Boring No.: SB-12		
1	104 Eas	st 25th S	treet		DDC Project No:	SE803	Project Location: Staten Island, NY		
	New Yo				DDC Task No.:	7979-ATC-7513	Boring Location:		
	212-	353-828	80		ATC Project No.:	015.38500.0125	Advanced in Clovis Road, 6 feet southeast		
Driller: Wa	arren George In	ıc.			Drilling Method:	Vactron, and Post Hole Digger / Drill Rig	of the southern curbline of Adrienne Place and 10 feet east of the western curbline of		
Inspector:	Denise Cosenz	a			Sampling Method:		Clovis Road.		
Groundwa	ter: 8 feet					***	Date: 2/2/2012, 2/8/12, 2/9/12, 2/10/12		
Depth (ft.)	Well Point Construction	Sample Interval	Recovery (ft.)	PID Reading (ppm)		Lithology and Field O	bservations		
0					0-8" - Asphalt				
						own medium SAND with trace	gravel (fill material)		
١.,					0-6' - Cleared via va	ctron and post hole digger			
			4	0					
	Riser				3'-6' - Grey CLAY				
4					Moist at 7'				
	,								
			ł	0					
			4		6'-20' - silty SAND and grey CLAY intermittent				
8.▼		7.5-8'			Groundwater encour	ntered at approximately 8'			
	·					w uppromissing o			
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			4	0					
12							·		
					1				
	Screen								
	Deleta		4	0					
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16					j				
				1					
			1	1					
			3	0					
]					
			1						
20		0-20'	<u> </u>	<u> </u>	Boring completed at				
					Date Installed: Feb	feet 16 feet ater: Groundwater encountered ruary 9, 2012			
					Date Abandoned:	COTUMEY 10, 2012			



APPENDIX C LABORATORY ANALYTICAL RESULTS

END OF SECTION

This Section Consists of hundred and one pages (101)

ATC Associates, Inc. DDC CAPIS ID No. SE803

March 16, 2012 Work Order Letter No. 7979-ATC-7513 **BMP - PAGES**

SPECIFICATIONS FOR CONSTRUCTION OF BEST MANAGEMENT PRACTICE (BMP) AND MITIGATION AREA

NOTICE

THE PAGES CONTAINED IN THIS SECTION ARE ISSUED FOR THE PURPOSE OF SPECIFYING THE REQUIREMENTS OF THE CONTRACT DOCUMENTS AND HEREBY MADE PART OF SAID CONTRACT DOCUMENTS.

NO TEXT ON THIS PAGE

CONSTRUCTION OF BLUEBELT IMPROVEMENTS JACK'S POND BLUEBELT

BOROUGH OF STATEN ISLAND, NY

SPECIFICATIONS FOR

CAPITAL PROJECT NUMBER SE-803

Construction of Best Management Practice (BMP) JP-1, JP-2, JP-3 and JP-4

November 2015
Prepared for the NYC Department of Design and Construction

By Hazen and Sawyer

<u>DIVISION VII - DETAILED SPECIFICATIONS – CONTRACT SE-803</u>

TABLE OF CONTENTS

CONSTRUCTION OF BEST MANAGEMENT PRACTICES

SPECIFIC PROVISIONS

Section No.	Title	Page No
7.01	Location of Work	BMP-10
7.02	Work Included	BMP-10
7.03	Inspection Before Bidding and Mandatory Pre-Bid	
7.00	Conference	BMP-14
7.04	Standard Sewer and Water Main Specifications	BMP-14
7.05	Inspection by the City, State and Federal Government	BMP-15
7.06	Existing Utilities	BMP-15
7.07	Permits to be Acquired by DEP	BMP-15
7.08	Land for Contractor's Use	
7.09	Licensed Surveyor for Engineer's Use	BMP-16
7.10	Construction – Special Requirements	BMP-17
7.10	Transportation and Handling of Materials and Equipment	BMP-22
7.11	Protection of Materials and Equipment at the Site	BMP-25
7.12	Final Cleaning	BMP-25
	OSHA Requirements	BMP-27
7.14	No Separate Payment	BMP-27
7.15	No Separate Payment	BMP-27
7.16	Bid Breakdown	
7.17	Detailed Work Description of BMP	

SE-803

<u>DIVISION VII - DETAILED SPECIFICATIONS - CONTRACT SE-803</u>

STRUCTURES AND MISCELLANEOUS EQUIPMENT

Section No.	Title	Page No.
7.101	Work Included	BMP-31
7.102	Dewatering	DMD 22
7.103	Concrete	DMD 20
7.104	Steel Reinforcement	
7.105	Welding.	BMP-55
7.107B	Rip-Rap Stone/Angular Natural Field Stone	DMP-00
7.109	Geotextile Fabric	BMP-67
7.110	Sheeting and Bracing	DMP-/1
7.111	Valves	BMP-/2
7.112	Stone Piers for Pedestrian/Vehicle Entrance	BMP-/4
7.114B	FRP Weir Plates	BMP-//
7.117	Graffiti Resistant Coating	BMP-85
7.120	Trash Rack	BMP-92
7.129	Concrete Structures	BMP-102 BMP-111

MORTARED STONE WALL

Section No.	Title	Page No.
Beetion 110.		BMP-113
7.201	Work Included Masonry Mortar	BMP-114
7.202	Macona Aggerories	
7.203 7.204	PA Colonial Field Stone	BMP-120

EARTHWORK AND GRADING

Section No.	<u>Title</u>	Page No.
7.300 _{% }} -	Work Included	BMP-126
7.301	Debris Removal and Disposal	BMP-127
7.302	Clearing, Grubbing, and Removals	BMP-129
7.303	Temporary Wooden Tree Guards	BMP-131
7.304	Excavation	BMP-133
7.305	Crushed Stone	BMP-135
7.306	Tree Removal and Disposal	BMP-136
7.307A	Grading	BMP-138
7.308	Fill On-Site	BMP-140
7.310	Plant and Sod Salvage	BMP_143
7.313	Removal of Pond Sediments	BMP-151

LANDSCAPING AND RESTORATION

Section No.	Title	Page No.
7.400	Work Included	BMP-158
7.401	Landscaping for Terrestrial Zone and Wetland Zone	BMP-159
7.403	Top Soil for Restored Area	BMP-189
7.405	Vector, Pest and Wildlife Control	BMP-195
7.406	Wood Chips	BMP-197
7.407	Jute Mesh	
7.408B	Herbicide Application	BMP-202
7.413	Temporary Goose Exclusion Fence	BMP-209
7.414	BMP As-Built Plans	BMP-211
7.415	Vines and Invasive Plant Removal	BMP-213
7.419	Tree and Root Pruning	BMP-219

EROSION AND SEDIMENTATION CONTROL MEASURES

Section No.	Title	Page No.
7.500	Soil Erosion and Sedimentation Control Measures	BMP-226
7.502	Construction Limit Fence	BMP-230
7.504	Reinforced Silt Fence	BMP-233
7.505	Sand Bags	BMP-236
7.506	Sediment Trap with Filter	BMP-237
7.509A	Stabilized Construction Entrance	BMP-241
7.510	Portable Sediment Tanks	BMP-241
7.512	Dirtbag	BMP-246

PERIMETER SITE SECURITY/ACCESS CONTROL MEASURES

Section No.	Title	Page No.
7.600	Work Included	BMP-248
7.600	Galvanized Steel "W" Beam Guide Rail and Guide Rail Gate	BMP-249
7.601B	Boulder Provision and Placement	BMP-253
7.602	Boulder Provision and Placement	BMP-256
7.603	Fixed and Removable Steel Pipe Bollards	DMD 250
7.604	Black Chain Link Fence	DIVIT -239
7.605	Sign Installation on Steel Rail Posts	BIVIP-200
7.606	Dermanent Accessway with Concrete Pavers or Gravel	BIVIP-2/0
7.607	Herbivore Exclusion Fence	BMP-2/9
7.613	Snlit Rail Fence	BWL-582
	Forebay/Micropool Sediment Clean-out Indicator	BMP-294
7.622	Fulcuay/whichopool bodilliont Cloud out 2222	

STREAMBANK STABILIZATION

Section No.	<u>Title</u>	Page No.
7.700	Work Included	RMP_206
7.701	Live Stakes	RMP_207
7.705	Erosion Control Mat	RMP-302
7.707	Coir Logs	RMP-304
7.710	Reno Mattress	BMP-308

BMP CONSTRUCTION AND RELATED WORK IN THE JACK'S POND BLUEBELT

CAPITAL PROJECT SE-803 CONSTRUCTION OF BEST MANAGEMENT PRACTICES

DIVISION VII

SPECIFIC PROVISIONS

7.01 <u>LOCATION OF WORK</u>

Work under this Contract is to be performed at four different sites in the Jack's Pond Bluebelt in the vicinity of Ramble Road and Clovis Road around Jack's Pond, along the Clinton Road right of way between Cleveland Avenue and Hillside Terrace, and the La Fontaine Place between Nelson Avenue and Cleveland Avenue. These sites are on property owned and regulated by the New York City Department of Environmental Protection.

7.02 WORK INCLUDED

The work under this Contract includes the construction of Best Management Practice (BMP) around Jack's Pond. 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. <u>The principal items of work include:</u>

1. <u>Storm Sewer and Sanitary Sewer Networks</u>

This entails excavation of trenches and layout of storm sewer and sanitary pipelines. The specifications and plans for this work are included elsewhere in these Contract Documents, not in this Addendum.

2. <u>Best Management Practices (BMP) Construction</u>

This will entail the construction of hydraulic features necessary to treat and convey stormwater runoff at the points where the storm sewer system discharges into the adjacent stream channel. Specifications and plans for this work are included in this Addendum.

The following BMPs will be constructed:

BMP JP-1	Jack's Pond - Extended Detention Wetland
BMP JP-2	Clovis Road - Outlet Stilling Basin
BMP JP-3	Hillside Terrace – Culvert Replacement and Forebay
BMP JP-4	Cleveland Avenue – Culvert Replacement and Forebay
BMP JP-4	La Fontaine Place – Outlet Stilling Basin

3. <u>Site Restoration</u>

The entire project site will be restored upon project completion. The site restoration will include proper grading for permanent access and development of the BMP stormwater management facilities. 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 trees and plants. Boundaries will be established with the use of buffer areas where appropriate.

B. <u>Involved Agencies and Firms</u>

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 Environmental Protection (DEP)

This City agency will maintain the facilities where BMPs JP-1, JP-2, JP-3 and JP-4 are to be constructed under this project.

2. New York City Department of Design and Construction (NYCDDC)

The NYCDDC completed the designs for the storm sewer and sanitary components of the project. They will administer and inspect the Contractor's work with regard to all aspects of the Contract, including managing the overall project schedule, sequencing of the project and construction. The NYCDDC will handle permit compliance in relation to the sewer construction. Whenever reference is made in these specifications to "the Engineer", it means the Resident Engineer on site, hired by NYCDDC.

3. New York State Department of Environmental Conservation (NYSDEC)

This State Agency has issued a freshwater 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.

4. Hazen and Sawyer, P.C.

This engineering firm is the design consultant 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. Restoration Specialist (Construction Monitor)

The Restoration Specialist shall be retained by NYCDDC. The Restoration Specialist shall also serve as the Construction Monitor for the construction of the BMPs. The individual or firm filling this position shall be responsible for overall oversight of the complete BMP installation. This individual or firm will also focus on erosion control for the entire project, and for overseeing all work in wetland areas and ensuring that the work adheres to permit requirements. The Restoration Specialist is responsible for compliance with the permit as it relates to BMP construction. The exact powers of the Restoration Specialist (Construction Monitor) are stipulated in the wetland permit.

6. Geotechnical Engineer

The Geotechnical Engineer shall be retained by the contractor. The Geotechnical Engineer shall be responsible for overseeing geotechnical investigations as shown on the contract documents, and preparing a geotechnical report. The Geotechnical Engineer must be a professional engineer currently registered in the State of New York, background who is familiar with the science of soil mechanics, including analysis, design and construction of foundations, slopes, retaining structures, embankments, roadways,

tunnels, levees, wharves, landfills and other systems made of or supported by soil or rock. Said professional engineer must be competent in directing soil borings and geotechnical investigations, preparing geotechnical reports, determining compaction of soil as it relates to earthwork including the existing soil conditions and the new construction soil conditions.

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 freshwater 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 freshwater 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 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 certification of professionals is cosponsored by the International Erosion Control Association and the Soil and Water Conservation Society. 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 <u>INSPECTION BEFORE BIDDING AND MANDATORY PRE-BID</u> <u>CONFERENCE</u>

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.

Access to the site for inspection purposes prior to bidding is on a continual basis, since the site is a public 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 AND WATER MAIN 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 <u>INSPECTION BY THE CITY, STATE AND FEDERAL</u> <u>GOVERNMENT</u>

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 <u>EXISTING UTILITIES</u>

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 <u>PERMITS TO BE ACQUIRED BY DEP</u>

The Contractor shall become familiar with the following permits and approvals which will be obtained by DEP:

- U.S. Army Corps of Engineers Wetland Permit
- DEC Freshwater 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 certification for Federal Wetland Permit;
- New York City Planning Commission authorization for alterations within the Special South Richmond Development District as designated by the City Zoning Resolution. These include modification of topography, removal of trees larger than 6 inches in caliper, and alteration of Designated Open Space; and
- New York City Planning Commission Waterfront Revitalization (Coastal Zone) Consistency Determination;

<u>DIVISION VII - DETAILED SPECIFICATIONS –</u> CONTRACT SE-803

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, BMP as-builts, soundings, cross sections or other measurements as may be required by the Engineer for BMP construction. 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 layout of the BMP site and activities not related to BMP construction 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 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 <u>CONSTRUCTION - SPECIAL REQUIREMENTS</u>

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. <u>Excavated Material</u>

Unsuitable excavated material shall be removed from the site together with all debris encountered in the excavations and the costs of such removal and disposal shall be included in the unit price bid for the applicable items in this Contract.

C. <u>Access Requirements</u>

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. <u>Connections to Existing Piping</u>

Connections to existing piping shall be made to permit ready disconnection of equipment with minimum disturbance of adjoining piping and equipment. The Contractor shall be responsible for the exact alignment of all piping with the existing piping and associated equipment and under no circumstances will pipe springing be allowed.

E. 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.

F. <u>Dust Control</u>

During construction, all appropriate fugitive dust control, including watering of exposed areas and using dust covers for trucks shall be employed. These measures include satisfying Section 1402.2-9.11 of the New York City Air Pollution Code. To prevent fugitive dust from

BMP-17

<u>DIVISION VII - DETAILED SPECIFICATIONS –</u> CONTRACT SE-803

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 earthmoving 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.

G. Sequence of Construction

All work shall be completed in accordance with the Contract Drawings, and upon approval of the Project Engineer and the Restoration Specialist. Stake out and receive approval from the Restoration Specialist for the limits of work before beginning any clearing. The Restoration Specialist shall identify all trees to receive tree guards and give approval for all trees identified for removal before tree removal operations begin.

A geotechnical investigation shall be performed by the Contractor prior to construction. The cost of the geotechnical investigation shall be deemed included in the prices bid for the respective structure. The geotechnical investigation shall include borings and a geotechnical report. Each structure shall have a minimum of 2 borings, located as shown on the structural drawings, to a minimum depth of 35 feet or refusal with continuous sampling. The geotechnical report shall include boring logs, soil testing results, bearing capacity and bearing elevation, soil properties, recommendations on foundation type, dewatering techniques and subgrade preparation recommendations. Scour shall be considered in the foundation recommendation. The geotechnical report shall be signed and sealed by an Engineer licensed in the state of New York. The geotechnical report shall be submitted by the Contractor to the Engineer and the Owner. The Contractor may be required to revise the design in order to comply with

recommendations made by the Geotechnical Engineer. All modifications are to be submitted to the Owner and engineering for review.

Landscaping is not included in construction sequencing; the Contractor must receive approval for all landscaping work from the Restoration Specialist prior to construction.

Area 'A' - (BMP JP-1 and BMP JP-2)

- A) Install stabilized construction entrances at Hillside Terrace and Clovis Road. Interior access shall be the responsibility of the Contractor.
- B) Install perimeter erosion control measures, including reinforced silt fences, construction limit fence, and tree guards around Area 'A'.
- C) Perform general site clearing, grubbing, and removals.
- D) Prior to the installation of the structure, install a coffer dam, or other approved method at Ramble Road and Clovis Road for work within the pond.
- E) Install a sediment trap, or approved equal, at Ramble Road and Clovis Road. A sediment trap shall be used to treat dewatering effluent. If the sediment trap needs to be placed outside the work area shown, the Contractor shall receive approval from the Engineer prior to placement and the necessary perimeter erosion and sediment control measures would be installed for the new location. Construction materials including but not limited to debris, sediments and fresh concrete, shall be prevented from entering the waterways.
- F) Install approved dewatering measures and diversion measures to divert the flow around the work area. The work area for the installation of the structure shall not contain standing water and all work within the pond shall be conducted within the confines of a cofferdam, or other approved method.
- G) Maintain pumps on site to pump water from work areas during storm events. At the Clovis Road work area, water shall be pumped to Jack's Pond. At the Ramble Road work area, water shall be pumped to a downstream catch basin. During large storms, allow dewatering measures to overtop and dewater as needed prior to resuming construction.
- H) Install storm sewers:
 - From Ramble Road (see NYCDDC drawing for 42" concrete pipe storm sewer layout) and construct weir chamber; and
 - b. From Clovis Road (see NYCDDC drawing for 4'-0"w x 2'-6"h concrete pipe storm sewer layout) and construct headwall.
- J) Perform grading:
 - a. Micropool at the Ramble Road weir chamber.

- b. Outlet stilling basin at the Clovis Road headwall.
- c. Jack's Pond grading within Jack's Pond shall be performed by dredging operations, by excavation, or other approved methods. The Contractor shall receive approval from the Engineer for the method and any dewatering procedure to be used. Prior to grading within the pond, the necessary erosion and sediment control measures shall be installed as directed.
- K) Once complete, install stabilization measures such as jute mesh or equivalent and seed all graded areas.
- L) Remove dewatering measures and stabilize the dewatering area with jute mesh or equivalent and seeding.
- M) Install perimeter treatment such as guiderail and signs.

Area 'B' - (BMP JP-3 Downstream)

- A) Install perimeter erosion control measures, including reinforced silt fences and tree guards around Area 'B'.
- B) Perform general site clearing and grubbing.
- C) Install storm sewer from Hillside Terrace to the outlet (see NYCDDC drawings for the 45"w x 29"h concrete pipe storm sewer layout). Install a stabilized construction entrance after the pipe has been installed and prior to the construction of the headwall.
- D) Place sand bags across the work area, just downstream of the outlet stilling basin, prior to the installation and construction of the headwall and outlet stilling basin grading. Construct headwall and perform grading of the outlet stilling basin. Remove the sand bags perpendicular to the work area after completion of the outlet stilling basin and headwall construction.
- E) Complete grading to tie into the existing pond.
- F) Once complete, perform a site grading and install stabilization measures such as jute mesh or equivalent and seed all graded areas excluding channel bottom.
- G) Install perimeter treatment such as concrete pavers and signs.
- H) Once permanent stabilization is complete, remove temporary perimeter and erosion and sediment control measures.

Area 'C' - (BMP JP-3 Upstream)

- A) Install perimeter erosion control measures, including reinforced silt fences and tree guards around Area 'C'.
- B) Prior to the installation of the structure, install sandbags, or other approved method for work within the pond.
- C) Install a sediment trap, or approved equal, a sediment trap shall be used to treat dewatering effluent. If the sediment trap needs to be

placed outside the work area shown, the Contractor shall receive approval from the Engineer prior to placement and the necessary perimeter erosion and sediment control measures would be installed for the new location. Construction materials including but not limited to debris, sediments and fresh concrete, shall be prevented from entering the waterways.

- D) Install approved dewatering measures and diversion measures to divert existing flow downstream around work area, discharging into the existing channel. The work area shall not contain standing water and all work within the pond shall be conducted within the confines of a cofferdam, or other approved method.
- E) Perform general site clearing, grubbing, and removal of existing outlet structure.
- F) Install weir wall structure and headwall in Hillside Terrace Right-of-way.
- G) Once complete, perform site grading and install stabilization measures such as jute mesh or equivalent and seed all graded areas.
- H) Remove dewatering procedures and stabilize the dewatering area with jute mesh or equivalent and seeding.
- I) Install perimeter treatment such as concrete pavers and signs.
- J) Once permanent stabilization is complete, remove temporary perimeter and erosion and sediment control measures.

Area 'D' - (BMP JP-4 Cleveland Avenue)

- A) Install perimeter erosion control measures, including reinforced silt fences and tree guards around Area 'D'.
- B) For work within the pond, install sandbags, or other approved method.
- C) Install a sediment trap, or approved equal, a sediment trap shall be used to treat dewatering effluent. If the sediment trap needs to be placed outside the work area shown, the Contractor shall receive approval from the Engineer prior to placement and the necessary perimeter erosion control measures would be installed for the new location. Construction materials including but not limited to debris, sediments and fresh concrete, shall be prevented from entering the waterways.
- D) Install approved dewatering measures to divert existing flow downstream around work area, discharging to the existing pond.
- E) Perform general site clearing and grubbing.
- F) Install weir wall structure and headwall in Cleveland Avenue Right-of-way.
- G) Once complete, perform site grading and install stabilization measures such as jute mesh or equivalent and seed all graded areas.

- H) Remove dewatering procedures and stabilize the dewatering area with jute mesh or equivalent and seeding.
- I) Install perimeter treatment such as concrete pavers and signs.
- J) Once permanent stabilization is complete, remove temporary perimeter and erosion and sediment control measures.

Area "E" (BMP JP-4 - La Fontaine Place)

- A) Install perimeter erosion control measures, including reinforced silt fences and tree guards around area. Reinforced silt fence shall continue along the work area to the existing pond downstream of the work area and placed upstream of the pond as directed by the Engineer.
- B) Perform general site clearing and grubbing.
- C) Install storm sewer from the intersection of Nelson Avenue and La Fontaine Place to the outlet (see NYCDDC drawings for the 30" concrete pipe storm sewer layout). Install a stabilized construction entrance after the pipe has been installed and prior to the construction of the headwall.
- D) Reinforced silt fence placed across the work area, just downstream of the outlet stilling basin, prior to the installation and construction of the headwall and outlet stilling basin grading. Construct headwall and perform grading of the outlet stilling basin. Remove the reinforced silt fencing perpendicular to the work area after completion of the outlet stilling basin and headwall construction.
- E) Inspect the reinforced silt fence placed across work area, just upstream of the existing pond, prior to grading the channel. Perform grading of the channel to meet existing pond. Remove the reinforced silt fencing perpendicular to the work area to complete grading to tie into the existing pond.
- F) Once complete, perform a site grading and install stabilization measures such as jute mesh or equivalent and seed all graded areas excluding channel bottom.
- G) Install perimeter treatment such as concrete pavers and signs.
- H) Once permanent stabilization is complete, remove temporary perimeter and erosion and sediment control measures.

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 tracing pad, wheel washing stations or other equipment deemed necessary to prevent spillage and deposition from vehicles from other construction equipment.

B. <u>Delivery</u>

- 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.
 - 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. <u>Removing and Hauling Equipment and Materials</u>

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.

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 <u>FINAL CLEANING</u>

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.
- 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. <u>Cleaning Materials and Methods</u>

The Contractor shall:

- 1. Use only cleaning materials recommended by manufacturer of surface to be cleaned.
- 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. <u>Payment for Final Cleaning</u>

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 <u>OSHA REQUIREMENTS</u>

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.

7.16 <u>BID BREAKDOWN</u>

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 <u>DETAILED WORK DESCRIPTION OF BMP</u>

1 BMP JP-1: Jack's Pond

This BMP is proposed to provide extended detention for flood control along with velocity reduction. It is also proposed to enhance and expand the natural features and ecological values of the pond. This BMP is composed of a riser box about 5' wide, 7' long and 1' above the water surface will be installed between Ramble and Clovis Roads. A pipe will be built from the riser box to the existing storm sewer in Ramble Road.

2. BMP JP-2: Clovis Road

This BMP would be located beneath the bed of Clovis Road. A stilling chamber will be installed on the Clovis Road Right-of-way to provide velocity attenuation for the storm sewer leading to the pond, and intercept sediment.

3. BMP JP-3: Hillside Terrace

This BMP would be located upstream of Jack's Pond where a tributary marsh drains via a culvert under Hillside Terrace to Jack's Pond to the east. The existing culvert under Hillside Terrace will be replaced to improve storm water flow conveyance and a forebay upstream would be constructed to prevent the culvert from getting clogged and to intercept sediment. In addition work would also include the construction of a stabilized outlet at the downstream end of the culvert.

4. BMP JP-4: Cleveland Avenue/La Fontaine Place

This BMP would be located upstream of the Hillside Terrace. The existing culvert under Cleveland Terrace will be replaced to improve storm water flow conveyance and a stabilized inlet at the downstream end of the culvert and a forebay at the upstream end would be installed to prevent the culvert from getting clogged and to intercept sediment. In addition an outlet stilling basin would be constructed at La Fontaine Place, east of Nelson Avenue.

Specification Section

Specific Provisions

7.09 Licensed Surveyor

Structures and Misc. Equipment

7.101	Work Included
7.102	Dewatering
7.103	Concrete
7.104	Steel Reinforcement
7.105	Welding
7.107B	Rip Rap Stone/Angular Natural Field Stone
7.109	Geotextile Fabric
7.110	Sheeting and Bracing
7.111	Valves
7.112	Stone Piers for Pedestrian/Vehicle Entrance
7.114B	FRP Weir Plates
7.117	Graffiti Resistant Coating
7.120	Trash Rack
7.129	Concrete Structures

Mortared Stone Wall

7.201	Work Included
7.202	Masonry Mortar
7.203	Masonry Accessories
7.204	PA Colonial Field Stones

Earthwork and Grading

Work Included
Debris Removal and Disposal
Clearing, Grubbing, and Removals
Temporary Wooden Tree Guards
Excavation
Crushed Stone
Free Removal and Disposal
Grading
Fill On-Site
Plant and Sod Salvage
Removal of Pond Sediments

Landscaping and Restoration

Work Included
Landscaping for Terrestrial Zone and Wetland Zone
Top Soil for Restored Area
Vector, Pest and Wildlife Control
Wood Chips
Jute Mesh
Herbicide Application
Goose Exclusion Fence
BMP As-Built Plans
Vine and Invasive Plant Removal
Tree and Root Pruning

Erosion and Sedimentation Control Measures

7.500	Soil Erosion and Sedimentation Control Measures
7.502	Construction Limit Fence
7.504	Reinforced Silt Fence
7.505	Sand Bag
7.506	Sediment Trap with Filter
7.509A	Stabilized Construction Entrance
7.510	Portable Sediment Tanks
7.512	Dirthag

<u>DIVISION VII - DETAILED SPECIFICATIONS –</u> CONTRACT SE-803

Perimeter Site Security/Access Control Measures

7.600	Work Included
7.601B	Galvanized Steel "W" Beam Guide Rail and Guide Rail Gate
7.602	Boulder Provision and Placement
7.603	Fixed and Removable Steel Pipe Bollards
7.604	Black Chain Link Fence
7.605	Sign Installation on Steel Rail Posts
7.606	Permanent Access Way
7.607	Herbivore Exclusion Fence
7.613	Split Rail Fence
7.622	Forebay/Micropool Sediment Clean-out Indicator

Stream Bank Stabilization

7.700	Work Included
7.701	Live Stakes
7.705	Erosion Control Mat
7.707	Coir Logs
7.710	Reno Mattress

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:

Section No.	<u>Title</u>
7.102	Dewatering
7.103	Concrete
7.104	Steel Reinforcement
7.105	Welding
7.107B	Rip Rap Stone/Angular Natural Field Stone
7.109	Geotextile Fabric
7.110	Sheeting and Bracing
7.111	Valves
7.112	Stone Piers for Pedestrian/Vehicle Entrance
7.114B	FRP Weir Plates
7.117	Graffiti Resistant Coating
7.120	Trash Rack
7.129	Concrete Structures

7.102 **DEWATERING**

A. <u>Description of Work</u>

The Contractor shall furnish, install, operate and maintain dewatering equipment as required, for BMP and Bluebelt 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. <u>General Specifications</u> Work performed under this Section shall be in conformance with the Standard Sewer and Water Main Specifications.
- 2. <u>Examination of the Sites</u> 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. <u>Shop Drawings</u> 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. <u>General Information</u> - 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.

2. <u>Care and Disposal of Water</u> - 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. <u>Design Criteria</u>

- 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 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 LaMotee 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 lintfree tissue.
- Place the cuvet into the cell of the meter.
- 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. <u>Job Conditions</u>

1. <u>Subsurface Conditions</u>

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.
- 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 BMP 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 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. <u>Drainage Of Excavated Areas</u>

- 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.

K. <u>Dewatering System Removal</u>

- 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. <u>No Separate Payment</u>

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.

* * * * *

7.103 <u>CONCRETE</u>

A. Work Included

<u>Description</u> - The Contractor shall furnish, and place all structural and nonstructural concrete as indicated on the Contract Drawings and as specified herein. Nonstructural concrete does not include steel reinforcement and is used for stone embedment, sidewalks, pedestrian ramps, curbs, concrete cores, mud mats, cradles and fill concrete or as noted on the Contract Drawings.

B. <u>General Requirements</u>

1. General Specifications - The General Specification: 11-Concrete (Dated November 1991) and Standard Sewer and Water Main Specifications of the Department of Environmental Protection (DEP) is declared to be part of this specification, the same as it is fully set forth elsewhere herein. Copies of this specification may be obtained from the Department. Concrete work shall conform to all requirements of that specification except as modified by this Detailed Specification.

2. Submittals

The Contractor shall submit to the Engineer for approval shop drawings and other materials required in accordance with the requirements set forth on the Contract Drawings and the Specifications in accordance with the Standard Sewer and Water Main Specifications. Submittals shall also include all material required under the "Submittals" section of the chapters of General Specification 11, Concrete, and any additional submittals hereinafter specified.

C. Detailed Requirements

The reference numbers in this Detailed Specification are keyed to the chapters and section numbers of General Specification 11; the first number(s) to the left of the first decimal designates the chapter and the subsequent numbers to the right of the first decimal designate the sections within the chapter. The Detailed Specifications herein shall take precedence over the Sewer and Water Main Specifications, December 1996.

1.4.1.6 The Engineer shall be responsible for all concrete inspections (including semi-controlled inspection).

- 2.1 Coarse and Fine Aggregates for Concrete shall be well graded in accordance with 2.6.1.1. Maximum size of course aggregate shall be 3/4". All sieve sizes (1-1/2" to No. 200) shall be used in determining grading of both coarse and fine aggregates.
- 2.2.4 Contractor shall submit to the Engineer for approval a minimum of two (2) suppliers of aggregate he proposes to use.
- 2.2.5 Contractor shall furnish confirmation to the Engineer that he can obtain 100% of the needed aggregates from one area prior to approval to place concrete.
- 2.3 Maximum cementitious material factor shall be 680 lbs/cu. yd of concrete for 4000 psi concrete.

For concrete mixed with only Portland Cement, the total alkalies in the cement (calculated as the percentage of NA₂O plus 0.658 times the percentage of K₂O) shall not exceed 0.40%.

For concrete mixed with Portland Cement and an appropriate amount of fly ash, the total alkalies in the Portland Cement (calculated as the percentage of NA₂O plus 0.658 times the percentage of K₂O) shall not exceed 0.85%.

An approved mineral admixture Type F (Fly Ash) shall be substituted for cement in the ratio of 20% by weight

- 2.4 All concrete, unless noted otherwise on the Contract Drawings, shall be air entrained and contain a water reducing or high range water reducing admixture. For proportioning of air content and admixtures, see Chapter 3, Sections 3.5, 3.6 and 3.8.
- 3.3 All concrete shall be Class 40, 4000 psi based on 28 day compressive test. All concrete shall be proportioned and tested in accordance with Section 1.4.3 of the General Specifications 11 Concrete, unless noted otherwise.
- 3.4 All concrete shall be normal weight. Lightweight Concrete shall not be used unless noted otherwise.
- 3.6 Slump:
 - 1. Slump for all concrete shall be 3 +/- 1 inches, unless indicated otherwise.

- 2. Where high range water reducing admixture is used, the specified water-cementitious material ratio shall be reduced by 0.02 and concrete shall be proportioned for no higher than 3-inch slump. The slump after addition of the high range water reducing admixture shall not exceed 8 inches when measured at the point of placement.
- 3. A tolerance of up to 2 inch above the maximum indicated slump shall be allowed for one batch in any five consecutive batches tested provided that it can be demonstrated that the specified water-cementitious material ratio is not exceeded.
- 3.5.1.1 When the above tolerances are exceeded, the condition shall be immediately investigated and corrective action taken. Corrective action may include modification of the mix as required by the NYC Building Code. A report of the condition and the remedial action taken shall be filed with the Engineer designated for Controlled Inspection within 48 hours.
- 4.3.7.1 Form ties for all structures containing or resisting liquid pressure shall have water stops at mid-thickness of the wall.
- Deformed billet steel bars shall comply with the requirements of ASTM A615, grade 60.
- 6.4 <u>Expansion Joints</u>
- 6.4.1 <u>General Information</u> Expansion joints with joint fillers and joint sealants shall be constructed where shown and as indicated on the Contract Drawings.
- 6.4.2 <u>Materials and Installation</u>
- 6.4.2.1 <u>Joint Fillers</u> Expansion joint filler shall conform to ASTM D1752, Type 1. The joint sealant shall be separated from the filler by a suitable bond breaker of polyethylene film or tape as recommended by the sealant manufacturer.

6.4.2.2 Joint Sealants

a. A two component thiokol polysulifide base synthetic rubber sealant such as Pecora Synthacalk GC-2, Sonneborn-DeSoto Sonolastic 2-part, or approved equal shall be used in all expansion joints in concrete and

masonry and wherever else specified or shown on the Contract Drawings.

It shall be furnished in pour grade or gun grade depending on installation requirements. Primers shall be used as called for by the manufacturer. The sealant shall be furnished in colors as directed by the Engineer.

- b. A two component pourable polyurethane sealant such as Pecora NR-300. Sonneborn-DeSoto Sonolastic Paving Joint Sealant SL-2, or approved equal shall be used in all concrete floors subject to heavy traffic and wherever else specified or shown on the Contract Drawings.
- 6.4.2.3 Installation of Joint Fillers and Sealants Joint fillers and sealants shall be installed in accordance with manufacturer's recommended procedures and as shown on the Contract Drawings. Adhesive for holding sponge rubber joint filler to concrete shall be Scotchgrip Cement No. 1300 as manufactured by Minnesota Mining and Manufacturing Co, or W.R. Meadows, Inc., or approved equal.

Joint filler that will be exposed after removal of forms shall be cut and trimmed to ensure a neat appearance and shall completely fill the joint except for the space required for the sealant. The filler shall be held securely in place and no concrete shall be allowed to enter the joint or the space for the sealant and destroy the proper functions of the joint.

A bond breaker of polyethylene film shall be used between filler and sealant. The joint shall be thoroughly clean and free from dirt and debris before the primer and the sealant are applied. Where the finished joint will be visible, masking of the adjoining surfaces shall be carried out to avoid their discoloration.

The sealant shall be neatly tooled into place and its finished surface shall present a clean and even appearance.

- 6.5 Waterstops
- 6.5.1 Work Included
- 6.5.1.1 <u>Description</u> The Contractor shall furnish and install all waterstops for expansion and construction joints as indicated on the Contract Drawing, specified herein or required for a complete installation.

6.5.1.2 General Requirements

- 1. <u>General Specifications</u> Waterstops shall be manufactured from virgin polyvinylchloride and shall meet or exceed all requirements set forth in the U.S. Corps of Engineers Specification CRD C572.
- 2. <u>Samples</u> The Contractor shall submit to the Engineer one (1) sample of each type of PVC waterstop. Each sample is to include a splice.
- 6.5.2.1 General Information Prior to installation, the Contractor shall submit layout drawings for approval, showing diagrammatically or otherwise the extent of the waterstop installations that are proposed to ensure that all construction and expansion joints will be watertight. The drawings shall include elevations, sections, etc. and all details to show that a continuous watertight installation shall be provided.

Construction joints made in other than positions shown on the Contract Drawings for the convenience of the Contractor are subject to the Engineer's approval and shall have water stops installed in these non-indicated construction joints at no additional cost to the City.

6.5.2.2 Materials and Installation

1. <u>Materials</u> - All waterstops shall be of polyvinylchloride extruded from an elastomeric plastic compound of which the basis resin shall be polyvinylchloride. The compound shall contain any additional resins, plasticizers, stabilizers or other materials needed to ensure qualities which will meet the requirements herein specified.

The required minimum physical characteristics for this material are per ASTM D-638:

Tensile strength

1,750 psi

Ultimate elongation -

not less than 280%

No reclaimed PVC shall be used for the manufacture of the waterstops. The Contractor shall furnish certification that the proposed waterstops meet the above requirements.

Waterstops for construction joints shall be flat ribbed type, 6 inches wide with a minimum thickness at any point of 3/8 inches.

Waterstops for expansion joints shall be ribbed with a center bulb, 9 inches wide with a minimum thickness at any point of 3/8 inches. Center bulb shall have an outside minimum diameter of 1 inch and an inside minimum diameter of ½ inch.

- 2. <u>Installation</u> Waterstops shall be installed in the work so that they are embedded to an equal depth in concrete on both sides of the joint and the waterstops shall be kept free from oil, grease, mortar or other foreign matter. Waterstops shall be adequately secured against movement during the pouring of concrete. Forms adjacent to waterstops shall be rigidly constructed and braced to prevent the concrete from leaching through joints and the displacement of waterstops due to power vibrating of the concrete. Concrete adjacent to waterstops shall be placed in 12 inch lifts and power vibrated to prevent honeycombing, voids and separation of aggregates at the surfaces of concrete separation joints.
 - Splices Splices at the intersection of runs of a. waterstops shall be made by heat sealing the with adjacent surfaces in accordance recommendations using manufacturer's thermostatically controlled electric source of heat. Only straight butt joint splices will be allowed in the field. At least three satisfactory field splices shall be made as samples on site. The Engineer may require tests on these splices by an approved laboratory, at the Contractor's expense, to certify the tensile strength of the joint. The strength attained shall be at least 80% of the unspliced material before any is used in the work.
 - b. <u>Defective Work</u> Defective work, as determined by the Engineer, shall be remedied by cutting and rebuilding the concrete walls and slabs, replacing the waterstop assemblies or remedied by other methods as approved by the Engineer.

- c. Responsibility The final responsibility for constructing a watertight condition at expansion joints and construction joints remains with the Contractor as part of the work under this Contract.
- 6.6.2.1 The Contractor shall coordinate and/or provide for the installation of anchor bolts, pipes, sleeves, inserts, chases, recesses, and all other embedded items, required in the work.
- 6.6.5.3 The Contractor shall submit equipment pad layout drawings.

6.7 Precast Concrete

- A. The Contractor shall furnish and install all precast items shown or specified in the Contract Documents, including all appurtenances necessary to make a complete installation. This section does not include prestressed or postensioned concrete.
- B. Without limiting the generality of other requirements of these specifications all work hereunder shall conform to the applicable requirements of the referenced portions of the following documents, to the extent that the requirements therein are not in conflict with the provisions of this Section.
 - 1. Precast Prestressed Concrete Institute Standard MNL -117.
 - 2. ASTM C478 Specification for Precast Reinforced Concrete Manhole Sections.
 - 3. ACI 318 Building Code Requirements for Reinforced Concrete.
 - 4. ACI 350 R Concrete Sanitary Engineering Structures.

C. Submittals

1. The Contractor shall submit shop drawings for all precast concrete items. Submitted drawings shall show all dimensions, location and type of lifting inserts, and details of reinforcement and the method of anchorage of surrounding work.

- 2. For all precast items which are manufactured, the Contractor shall also submit a list of the design criteria used by the manufacturer.
 - a. For all precast items which are manufactured, and which have a clear dimension, in any direction, greater than or equal to 4'-0", the Contractor shall submit design calculations per criteria stated on contract drawings. The precast concrete calculations shall be stamped and signed by a Professional Engineer registered in the State of New York.
- 3. The Contractor shall submit approved ICBO reports for all lifting inserts, showing allowable design loads on the inserts.

D. Quality Assurance

- 1. Precast concrete units shall be made by an experienced manufacturer and shall be constructed as shown on the Drawings and specified herein and shall be free of defects, checks and cracks. Care shall be taken in the mixing of materials, casting, curing and shipping to avoid any of the above.
- 2. The Contractor shall notify the Engineer a minimum of 24 hours prior to casting and when the units have been fabricated and await the Engineer's consent prior to shipping to the site.
- 3. The Engineer may elect to examine the units at the casting yard or upon arrival of same at the site. The Engineer shall have the option of rejecting any or all of the precast work if it does not meet with requirements shown on the Drawings or specified herein. All rejected work shall be replaced at no additional cost to the City.

E. Products

1. The joint sealing compound shall be Quik-Seal, a preformed, cold applied, ready to use plastic joint

sealing compound as supplied by Quikset Utility Vaults, Santa Ana, California; Ram-Nick by K.T. Snyder Company; or approved equal.

- 2. Mortar used between the sections of precast concrete manholes and vaults shall be as recommended by the manhole section manufacturer.
- 3. Non-shrink grout shall be used where grouting is required.

F. Design

- 1. The precast concrete units shall be designed for the dead load of the units plus a minimum superimposed horizontal Truck load of H20 for the spans shown on the Drawings unless shown or noted otherwise on Drawings.
- 2. Deflection shall not exceed 1/360 of span at design load.

G. Fabrication

1. All precast items shall be fabricated in accordance with PCI Manual for Quality Control for Plants and Production of Architectural Precast Concrete Product.

H. Installation

1. Required pads, plates and reinforcing bars shall be furnished for casting and anchorage in the adjoining work. The precast concrete units shall be installed with the units tight and at right angles to the supporting beams or walls. The units shall be aligned and leveled in accordance with the procedures recommended by the manufacturer. Units shall be grouted by a mixture of not less than one part cement to three parts fine sand, care being taken to see that joints are filled. Damp grout that may have seeped through shall be removed before it hardens.

- 2. All openings in the precast units shall be made by the Contractor and are the responsibility of the Contractor. Where details for an opening are not shown on the Drawings, the opening shall be made in accordance with the recommendation of the manufacturer.
 - a. For precast planks, when an opening causes a loss in carrying capacity of the unit, the adjacent units shall be designed to carry the additional dead and superimposed load transferred from the unit with the opening. The Contractor shall provide saddle headers to transfer the load to adjacent members.
- 3. Damaged units shall be replaced at no additional cost to the City.

8.7.6 Connecting Concrete to Existing Structures

- A. Where new concrete work is to be made integral with existing concrete work, the Contractor shall proceed as follows and as shown or specified.
 - 1. Roughen surface of existing concrete by chipping.
 - 2. Cut existing concrete where required or as indicated on the contract drawings.
 - 3. Where it is necessary to expose existing reinforcement, the reinforcing rods shall be cleaned by wire brushing and new reinforcement shall be hooked into existing reinforcement and lapped, drilled into existing concrete and set with an approved adhesive, or welded as directed. Proper preheating shall be required prior to welding. Clearance around each bar shall be in accordance to ACI 318 requirements.
 - 4. Where expansion anchors are shown, holes shall be drilled in the existing concrete as indicated on the contract documents and to the minimum depths as recommended by manufacture so as to provide a minimum bond strength of 125% of yield.

- 5. Waterstops to be set into existing concrete shall be as shown on the Contract Drawings.
- 6. Thoroughly wash all surfaces and install waterstops and reinforcing steel as required.
- 7. Apply bonding compound in strict conformance with the manufacturer's instructions.
- 8. Apply new concrete in strict conformance with bonding compound manufacturer's recommendations.
- B. Where portions of existing concrete structures or masonry bulkheads are to be removed and where the remaining concrete is to be finished smooth, the Contractor shall do the following as a minimum:
 - 1. Remove concrete or masonry to the depths shown on contract drawings or required by the Engineer.
 - 2. Cut off projecting reinforcement to a depth of at least 2 inches measured from the finished concrete surface. Where shown, reinforcement shall be bent across cut face and covered with new concrete.
 - 3. Thoroughly coat the roughened concrete surfaces by applying bonding compound in strict conformance with the manufacturer's instructions.
 - 4. Cement mortar shall be placed to a thickness slightly in excess of the finished surface and shall be steel-trowel-finished, flush with the adjacent surfaces.
 - 5. The color of new concrete in the exposed surfaces shall match the color of the existing adjoining concrete as closely as possible.
 - 6. Cement mortar shall consist of one part Portland cement and two parts of sand by volume.

Whenever new concrete is connected to existing concrete, the existing concrete shall be coated with bonding

compound. Surface preparation, application and curing shall be done in strict accordance with the manufacturer's directions.

8.7.7 <u>Cutting and Patching Opening for Pipe and Other Penetrations in Existing Concrete</u>

- A. The Contractor shall cut the existing concrete within the limits required, expose the existing reinforcement, and perform the work in such manner to prevent damage to the existing adjacent concrete and/or equipment. Unless otherwise permitted, line drilling is required. The exposed reinforcement shall be cleaned by wire brushing, then cut and bent to permit the installation and finally bent around the new pipe or thimble. Additional reinforcement shall be provided as shown on the Contract Drawings. When reinforcing is required to be welded to structural members, the work shall be done by approved and licensed welders using size and length of beads shown on the Contract Drawings.
- B. Coating of the existing concrete shall be as previously specified under Section 8.7.6. Non-shrinking grout shall be used for setting wall casting, sleeves and wherever called for into existing concrete.
- C. Dowels and anchors shall be set with an approved epoxy adhesive in strict accordance with manufacturer requirements.
- D. Openings shall be provided with keyed joints meeting the Engineer's approval prior to coating and patching.
- E. Where such work will be visible in the completed work, the adjacent surfaces shall be made to match as closely as possible.
- 8.10.5 Non-Shrink Grout Non-shrink, non-staining grout shall be "Euco N-S" by the Euclid Chemical Company, or "Masterflow 713" by Master Builders, or approved equal. Non-shrink grout shall be mixed and placed in strict accordance with the directions of the manufacturer.

Non-shrink grout shall be used for setting the structural items where as noted on the Contract Drawings.

8.12 Concrete Sealer

Concrete sealer shall be a one (1) part polyurethane sealer and dustproofer, "Eucothane" as manufactured by the Euclid Chemical Company, or approved equal.

Concrete sealer shall be applied on all equipment pads.

8.13 <u>Pigmented Admixture</u>

This section describes Pigmented Admixture for coloring Portland cement mixtures.

It shall be certified by the manufacturer that the Pigmented Admixture shall comply with the requirements of ACI 212.3R.-10, Section 6.1., as water-reducing admixtures, and that their water reducing components have been tested for compliance with ASTM C-494 (Specification for Chemical Admixtures for Concrete). It shall be certified by the manufacturer that the Pigmented Admixture shall consist of pure synthetic mineral oxide only, and shall comply with ASTM Designation C979. It shall also be certified by the manufacturer that the Pigmented Admixture shall be single-component admixture, complying with both ASTM C494 and ASTM C979, not as a combination of two or more additives or admixtures.

The pigmented Admixture shall produce a color equal to the standards on file at the office of the New York City Department of Transportation, Bureau of Highways, Division of Roadway Engineering, 40 worth Street, New York, NY 10013 and The Landmarks Commission, 225 Broadway, 23rd Floor, New York, NY 10007. The color shall be approved by the Engineer.

The Pigmented Admixture manufacturer shall certify that when used at the recommended dosage, the pigmented admixture has no effect on or increases the compressive strength of the concrete by 5-10% when compared with a control batch of the same mix design and slump but without the Pigmented Admixture. Testing shall be done at 28 days after depositing, and shall be measured in pounds per square inch. The test results shall be an average of at least three (3) cores of cylinders per test.

Calcium Chloride shall not be used in the composition of the admixture nor in the composition of the concrete.

The Pigmented Admixture shall be packaged by the manufacturer in incremental amounts by weight for a single cubic yard of concrete, with the designated dosage clearly marked on each package.

Air entraining agent complying with ASTM Designation C260 shall be used in combination with the Pigmented Admixture.

No other agents or admixtures shall be used with the Pigmented Admixture in the concrete, unless stated in writing by the manufacturer of the Pigmented Admixture to be of no consequence to the colorfastness of the concrete mixture.

The Pigmented Admixtures shall be mixed and delivered in accordance with ASTM Designation C 94. The same type and brand of cement, source of sand and water/cement ration shall be maintained for each load of concrete used in the entire project.

The slump of the concrete shall remain consistent throughout the project at four inches. If held-back water is added at the job site, the concrete should be mixed at mixing speed for an additional five minutes after addition of the water and before depositing.

The Contractor shall furnish for approval and on site a concrete sample for each color specified using the Pigmented Admixture. The sample shall be at least 4' x 4' x 4" and shall be given the specified surface texture and cured with the methods specified for the concrete installation. The Contractor shall not order the admixture until the samples are approved by the Engineer. Once approved, the samples shall be used for assessing color conformance of pigmented concrete installed.

Water must not be sprinkled or otherwise added to the surface of the slab during finishing. Evaporation retardants may be fogsprayed provided they are not detrimental to the finished color of the concrete.

8.13.1 Curing Membrane

If the concrete is pigmented as per this Section, the curing membrane shall be of the liquid-membrane forming type and shall be color-matched to the pigmented concrete. Additionally, the curing membrane shall be of a type recommended by the Pigmented Ad mixture manufacturer and shall conform to both

ASTM C309 and all local, State, and Federal regulations concerning volatile organic compounds (VOC). Plastic sheeting, burlap, paper, or other unspecified material shall not be used as a curing membrane.

Prior to making any filed samples and the placing of any colored concrete, the Contractor, concrete supplier, engineer-in-charge, and/or city representative shall meet and discuss methods of handling the colored concrete.

8.13.2 Measurement and Payment

The quantity to be measured for payment under this Section shall be the total number of cubic yards of approved additional or requested concrete placed as directed by the Engineer.

The contract price per cubic yard of approved structural and nonstructural concrete shall be as indicated on the BID SCHEDULE OF PRICES, Item No. BMP-7.103-A (Non-Structural) and Item No.BMP-7.103 (Structural). The bid price shall constitute full compensation for all labor, materials, equipment and work incidental thereto, necessary to complete this item in accordance with the plans and specifications to the satisfaction of the Engineer.

10.4 Rubbed Finishes

The following shall be produced on concrete which has met the requirements of smooth form finish (Section 10.3.2).

- 10.4.1 Smooth Rubbed: Where this finish is required, it shall be applied no later than one day following form removal. No rubbing shall be done before the concrete is thoroughly hardened and the mortar used for patching is firmly set. A smooth, uniform surface shall be obtained by wetting the surface and rubbing it with a carborundum brick or other abrasive to eliminate irregularities until uniform color and texture are produced. Unless the nature of the irregularities requires it, the general surface of the concrete shall not be cut into. Corners and edges shall be slightly rounded by the use of the carborundum brick. Brush finishing or painting with grout or neat cement will not be permitted.
- 10.5.2 Smooth Rubbed Finish (Section 10.4.1) for all other exterior surfaces and interior vertical surfaces.

November 2015

- 10.5.3 Smooth Form Finish (Section 10.3.2) for all other interior overhead surfaces exposed to public view and interior walls of tanks/culverts.
- 10.5.4 Grout Cleaned Finish (Section 10.4.2) for all exposed surfaces to be painted.

* * * * *

7.104 <u>STEEL REINFORCEMENT</u>

A. Description of Work

1. The Contractor shall furnish and install all reinforcing steel as indicated on the Contract Drawings and specified herein.

2. General Requirements

a. <u>General Specifications</u> - Steel reinforcement, electrically welded mesh and steel wire shall conform to the requirements of Chapter 5 - General Specification 11, - Concrete, November 1991 and the Standard Sewer and Water Main Specifications, July 2014.

Metal chairs, ties or wires shall not extend to the concrete surfaces. Approved form ties shall provide deep recesses which shall be carefully filled with grout after forms are stripped.

b. <u>Shop Drawings</u> - The Contractor shall submit to the Engineer for approval, shop drawings and other material required to substantiate conformance with the requirements set forth on the Contract Drawings and the Specifications. Shop drawings shall include, but not be limited to the requirements of General Specification 11 - Concrete.

Detailed placing and shop fabricating drawings, prepared in accordance with ACI 315 shall be furnished for all concrete reinforcement. These drawings shall be made to such a scale as to clearly show construction joint locations, openings, the arrangement, spacing and splicing of the bars. No materials shall be cut or fabricated until related drawings have been approved by the Engineer.

- c. <u>Submittals</u> The Contractor shall also submit the following:
 - 1) Mill test certificates.
 - 2) A description and sample of the reinforcing steel manufacturer's marking pattern.
 - 3) Request to use mechanical couplers along with manufacturer's literature on mechanical couplers

with instructions for installation, and certified test reports on the couplers capacity.

B. <u>Execution</u>

- 1. <u>General Information</u> The Contractor shall install under this Section of the Detailed Specifications all steel reinforcement required for a complete installation for the structural work of this Contract. Bar sizes shall be as indicated on the Contract Drawings except as otherwise ordered or approved by the Engineer.
- 2. <u>Materials and Installation</u> The steel reinforcement shall conform to the requirements as hereinbefore specified and to General Specification 11 Concrete, Chapter 5 Reinforcement. Reinforcing bars shall be deformed new billet steel bars conforming to ASTM A615, Grade 60. Wire mesh reinforcement shall conform to ASTM A185.
- 3. Welding Wherever welding of reinforcing rods to other reinforcement or structural shapes is indicated, the welding of reinforcing steel shall conform to General Specification 11 Concrete, Chapter 5.
- 4. <u>Coiled Reinforcing</u> Shall not be permitted.
- Mechanical Couplers Hot-forged sleeve type couplers shall not be used.
- 6. <u>Dowel Adhesive System</u> Where shown on the Drawings, reinforcing bars anchored into hardened concrete with a dowel adhesive system shall use a two-component adhesive mix which shall be injected with a static mixing nozzle following manufacturer's instructions. Thoroughly clean drill holes of all debris and drill dust with wire brush prior to installation of adhesive and reinforcing bar. The embedment depth of the bar shall be per manufacturer's recommendations, so as to provide a minimum allowable bond strength that is equal to 125 percent of the yield strength of the bar, unless noted otherwise on the Drawings. Engineer's approval is required for use of this system in locations other than those shown on the Drawings.
- 7. <u>Delivery, Storage and Handling</u>

- a. All reinforcing shall be neatly bundled and tagged for placement when delivered to the job site. Bundles shall be properly identified for coordination with mill test reports.
- b. Reinforcing steel shall be stored above ground on platforms or other supports and shall be protected from the weather at all times by suitable covering. It shall be stored in an orderly manner and plainly marked to facilitate identification.
- c. Reinforcing steel shall at all times be protected from conditions conducive to corrosion until concrete is placed around it.

8. Placing

- a. Reinforcing steel shall be accurately positioned as shown on the Drawings and shall be supported and wired together to prevent displacement, using annealed iron wire ties or suitable clips at intersections. All reinforcing steel shall be supported by concrete, plastic or metal supports, spacers or metal hangers which are strong and rigid enough to prevent any displacement of the reinforcing steel. Where concrete is to be placed on the ground, supporting concrete blocks (or dobies) shall be used in sufficient numbers to support the reinforcing bars without settlement. In no case shall concrete block supports be continuous.
- b. The portions of all accessories in contact with the formwork shall be made of plastic or steel coated with a 1/8 inch minimum thickness of plastic which extends at least 1/2 inch from the concrete surface. Plastic shall be gray in color.
- c. Tie wires shall be bent away from the forms in order to provide the specified concrete coverage.
- d. Reinforcing bars additional to those shown on the Drawings, which may be found necessary or desirable by the Contractor for the purpose of securing reinforcing in position, shall be provided by the Contractor at no additional cost to the City.
- e. Reinforcing placing, spacing, and protection tolerances shall be within the limits specified in ACI 318 except where in conflict with the Building Code, unless otherwise specified.

- f. Reinforcing bars may be moved within one bar diameter as necessary to avoid interference with other concrete reinforcing, conduits, or embedded items. If bars are moved more than one bar diameter, or enough to exceed placing tolerances, the resulting arrangement of bars shall be as acceptable to the Engineer.
- g. Welded wire fabric shall be supported on slab bolsters spaced not less than 30 inches on centers, extending continuously across the entire width of the reinforcing mat and supporting the reinforcing mat in the plane shown on the Drawings.
- h. Bars with kinks or bends not shown on the Drawings shall not be used.

9. Splicing

- a. The length of lap for reinforcing bars, unless otherwise shown on the Drawings shall be in accordance with ACI 318 for a class B splice.
- b. Laps of welded wire fabric shall be in accordance with ACI 318. Adjoining sheets shall be securely tied together with No. 14 tie wire, one tie for each 2 running feet. Wires shall be staggered and tied in such a manner that they cannot slip.
- Mechanical splices shall be used only where shown on the drawings or when approved by the Engineer.
- d. Couplers which are located at a joint face shall be a type which can be set either flush or recessed from the face as shown on the Drawings. The couplers shall be sealed during concrete placement to completely eliminate concrete or cement paste from entering. After the concrete is placed, couplers intended for future connections shall be plugged and sealed to prevent any contact with water or other corrosive materials. Threaded couplers shall be plugged with plastic plugs which have an O-ring seal.

C. No Separate Payment

No separate payment shall be made for this work of this specification. All costs shall be included in the various Contract Items of this Contract.

NO TEXT ON THIS PAGE

7.105 <u>WELDING</u>

A. <u>Description of Work</u>

- 1. The Contractor shall perform all welding as indicated on the Contract Drawings and as specified herein.
- B. General Requirements All welding shall be in accordance with specified standards as modified or supplemented by these Specifications. No welding shall be done when the base-metal temperature is lower than 32 degrees Fahrenheit. The subcontractor shall be responsible for the quality of the welding and shall set up and record procedures for welding all metals included in the work, Welding shall not be started until procedure, welders, and welding operators have been qualified by tests and copies of all records and reports submitted for approval. Costs of such testing shall be borne by the Contractor. Each weld shown or indicated on the Contract Drawings shall be made as specified on the approved procedure specifications provided to cover each type of weld. Welding of any special steel shall adhere, without deviation, to the written instructions of the steel manufacturer.
 - 1. Welded Construction Welded construction shall be used only where indicated on the Contract Drawings and approved shop drawings. The AWS Specification D1.1 (latest edition) Structural Welding Code or AWS D1.4 (latest edition) Structural Welding Code Reinforcing Steel, as applicable and other requirements of this Section shall apply to the welded joints. Unless otherwise specified, welding shall be by automatic submerged arc or semi-automatic submerged arc,
 - 2. <u>Test Specimens</u> Test specimens shall be prepared by the Contractor for each type of welded joint as designated in paragraph entitled Procedure Qualification. Destructive tests of specimens for procedure and welder qualifications shall be conducted in accordance with AWS D1.1, Section 4, Qualifications, and the requirements specified herein.
 - 3. Groove Welds All groove welds shall be 100 percent complete penetration welds as defined in AWS D1.1 or shown in AWS D1.4 for reinforcing steel, regardless of whether a backup plate is shown, or whether the supplementary backing weld or melt-through symbol is included, in each groove-weld symbol shown, unless partial penetration is included in the weld symbol.

C. <u>Welding Procedure</u>

- 1. General Information - Welding procedures and procedure qualification tests shall be required for all welding covered by this specification to demonstrate that the combination of process, material, and technique produces the desired welds. procedures, when qualified, become the welding procedure specification which must be followed in making weldments on materials within ranges shown in the Contract Drawings (and Specifications), and provide a means of assuring reproducible results and quality control. Procedure specifications and procedure qualification test results shall be kept by the Contractor and shall be available for examination by the Engineer. Five copies of the procedure specifications and test results shall be submitted for Welding procedure specifications and tests shall be individually identified or completed on the shop details and erection drawings. Welding shall not be performed on any contract item before approval of procedure specification and qualification testing by the Engineer.
 - a. Welding Procedure Specification A separate Procedure Specification shall be prepared for each type of weld which varies in accordance with the definition of essential changes as listed in AWS D1.1, Section 5.
 - b. <u>Procedure Qualification</u> Each type of weld made by a specific process shall be qualified by tests as specified in AWS D1.1 or as specified herein for reinforcing steel.
 - c. <u>Procedure Specification Requalification</u> When an essential variable, as specified in AWS D1.1, is changed, the procedure must be requalified.
 - d. <u>Dissimilar Steels</u> Where dissimilar steels are welded together, the procedure shall be the same as for the lower-strength steel.
 - e. Groove Welds All groove welds shall be 100 percent complete penetration welds as defined in AWS D1.1 or shown in AWS D1.4 for reinforcing steel, regardless of whether a backup plate is shown, or whether the supplementary backing weld or melt-through symbol is included, in each groove-weld symbol shown, unless partial penetration is included in the weld symbol.

- f. Welded Studs Gun welded studs shall conform with the requirements of AWS D1.1, Section 7.
- g. <u>Electrodes</u> Electrodes for structural steel welding shall conform with AWS D1.1, Section 4, as applicable.

D. Performance Certification Of Welders And Welding Operators

- 1. <u>General Information</u> Each welder and welding operator assigned to work on this Contract shall be certified in conformance with AWS D1.1, the requirements of this Specification. Welders shall be New York City certified, and all welding shall be done in conformity with the New York City Building Code.
 - a. Welder's Certificates Upon completion of the applicable qualification tests, each welder and welding operator shall be provided with a certificate by the Contractor. The certificate shall state the type of welding and positions for which he is qualified, the code under which he is qualified, and the firm or individual certifying the qualification tests. The certificate shall be kept on file at the job site by the Contractor and shall be made available for examination and approval by the Engineer. The certificate will remain in effect except when requalification of the welder or welding operator is required as specified in AWS D1.1 and the requirements of this Specification.
 - b. Welder's Identification The Contractor shall assign each welder identifying number, letter, or symbol which shall be used by the welder to identify all welds made by him. For identification, the welder shall lightly stamp his symbol adjacent to the weld by means of a metal stamp.
 - c. Welder's Record The Contractor shall maintain a record of all welders and welding operators employed on the Contract showing the date and results of tests and the identification mark assigned to each welder. These records shall be certified by the Contractor and made accessible to authorized personnel. Copies of the record shall be furnished to the Engineer.
 - d. <u>Technique</u> Technique shall conform to AWS Specification D1.1, Section 4, entitled Technique, and the requirements of this Specification.

E. <u>Supervision</u>

All shop and field welding shall be under the immediate supervision of a representative of a standard testing agency or an approved inspection agency reporting directly to, and under the control of, the Department of Design and Construction. The Contractor shall submit the name of such agency to the Commissioner for approval before starting work. The costs of all welding inspections and tests shall be borne by the Contractor.

F. <u>Inspection and Tests During Construction</u>

The Engineer will make periodic checks of each welder to determine that welds are being made as specified in the approved procedure specifications. Welding speed may be estimated. All welds will receive 100 percent visual inspection by the Engineer to determine weld size and profile, surface cracks, overlap, and undercut. The Engineer reserves the right to perform any test on any weld, including liquid penetrant, magnetic particle, radiographic, and ultrasonic.

G. <u>Acceptance Requirements</u>

- 1. Welds, other than stud welds, are acceptable if inspection indicates conformance within the following limitations:
 - a. <u>Cracks</u> All welding exhibiting any cracks, either in the weld metal or the parent metal, will be rejected.
 - b. <u>Undercut</u> Undercut shall not be more than 1/32 inch deep.
 - c. <u>Convexity or Reinforcement</u> Convexity or reinforcement of a weld face shall not exceed the limits shown in AWS D1.1, and there shall be no overlap.
 - d. <u>Fusion</u> Incomplete fusion or lack of penetration will not be allowed.
 - e. <u>Small Inclusions</u> Slag inclusions, porosity, and other fusion defects less than 1/16 inch in greatest dimension will be allowed if well dispersed and the sum of the greatest dimensions in any linear inch of welded joint does not exceed 3/8 inch.
 - f. <u>Large Inclusions</u> Slag inclusions, porosity, and other fusion defects 1/16 inch or larger in greatest dimension will be

allowed providing such defects do not exceed the limits specified in AWS D1.1.

H. Repair of Defective Welds

- 1. In lieu of rejection of an entire piece or member containing welding which is unsatisfactory or which indicates inferior workmanship, the corrective measures listed hereunder may be permitted by the Engineer whose specific approval shall be obtained for making each correction. Corrective measures shall be made at the Contractor's expense and to the satisfaction of the Engineer and/or an acceptable independent testing lab
- 2. <u>Defective or Unsound Welds or Base Metal</u> Defective or unsound welds or base metal shall be corrected either by removing and replacing the entire welds, or as follows:
 - a. <u>Convexity and Overlap</u> Excessive convexity and overlap, defined in paragraph Acceptance Requirements, shall be reduced by removal of excess weld metal.
 - b. <u>Concavity</u> Any concavity of weld, crater, undersize welds, undercutting: clean and deposit additional weld metal.
 - c. <u>Discontinuities</u> Excessive weld porosity, slag, inclusions, defined in the paragraph entitled Acceptance Requirements, and incomplete fusion: remove defective portions and reweld.
 - d. <u>Cracks</u> Cracks in weld or base metal: remove crack throughout its length, including sound weld metal 2 inches beyond each end of the crack; follow by the required rewelding.
- 3. Removal The removal of weld metal or portions of the base metal shall be done by chipping, grinding, oxygen cutting, oxygen gouging, or air carbon-arc and in such a manner that the remaining weld metal or base metal is not nicked or undercut. Defective portions of the weld shall be removed without substantial removal of the base metal.
- 4. Additional Metal Additional weld metal shall be deposited using an electrode smaller than that used for making the original weld, and not more than 5/32 inch diameter. The surface shall be cleaned thoroughly before welding.

- 5. <u>Inaccessibility</u> Where work performed subsequent to the making of a deficient weld has rendered the weld inaccessible or has caused new conditions which would make the correction of the deficiency dangerous or ineffectual, the original conditions shall be restored by removing the welds or members, or both, before making the corrections, or the deficiency shall be compensated for by additional work done according to an approved revised design.
- 6. <u>Caulking</u> Caulking of welds shall not be permitted.
- 7. Improper Fit Improperly fitted parts may be cut apart and rewelded. Members distorted by welding shall be straightened by mechanical means or by carefully supervised application of a limited amount of localized heat. The temperature of heated areas shall not exceed 1,200 degrees F (a dull red color). Temperature shall be carefully measured with temperature indicating crayons during the heating operation. Parts to be heated for straightening shall be substantially free of stress and from external forces, except those stresses resulting from mechanical means used in conjunction with the application of heat.
- 8. Peening No peening shall be done on the root or surface layers of a weld. Peening of intermediate weld layers may be used only if authorized by the Engineer and directed by him. Care shall be exercised to prevent overpeening which may cause overlapping, scaling, cracking, flaking, or excessive cold working of weld and base metal.

I. 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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7.106 OUTLET STILLING BASIN

NO TEXT ON THIS PAGE

7.107B RIP-RAP STONE /ANGULAR NATURAL FIELD STONE

A. <u>Description of Work</u>

Under this item, the Contractor shall perform all work necessary to install rip-rap stone or angular natural field stone where directed by the Engineer, 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. <u>Materials Used</u>

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 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 filer 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. <u>Measurement and Payment</u>

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.

The contract price per cubic yard of approved stone material furnished and delivered shall be as indicated on the BID SCHEDULE OF PRICES Item No. BMP-7.107-C. The bid price shall constitute full compensation for all labor, materials, equipment and work incidental thereto, necessary to furnish and deliver rip-rap stone in accordance with the plans and specifications to the satisfaction of the Engineer.

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7.108A

ALUMINUM GRATING

NO TEXT ON THIS PAGE

7.109 <u>GEOTEXTILE FABRIC</u>

A. <u>Description of Work</u>

Under this item, the Contractor shall furnish all equipment and perform all work necessary to place geotextile fabric as indicated in the Contract Drawings and specifications and as directed by the Engineer.

B. <u>Construction Methods</u>

The geotextile fabric shall be Enkadrain 9120 or equivalent with the following specifications:

Property	Test Method	<u>Unit</u>	Specification
Material	Non-woven geotextile fabric		
Unit Weight	ASTM D1777	oz/sq. yd	4.3 (min)
Flow Rate	Falling Head Test	gpm/sq. ft.	` '
Puncture	ASTM D751	lbs.	60 (min)
Thickness		in.	0.8 (min)

C. <u>Measurement and Payment</u>

The quantity to be measured for payment under this Section shall be the number of square feet of surface area on which Geotextile Fabric has been installed in accordance with the plans and specifications and directions of the Engineer.

The contract price per square ft. of Geotextile Fabric shall be as indicated on the BID SCHEDULE OF PRICES Item No. BMP-7.109. The bid price shall include the costs for all labor, material, equipment and incidental work in accordance with the plans and specifications to the satisfaction of the Engineer.

The cost for all labor, materials and equipment required to place the geotextile fabric under the concrete structures shall be deemed included in the price bid under detailed specifications for concrete structures Section 7.129.

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7.110 SHEETING AND BRACING

A. <u>Description of Work</u> - The Contractor shall furnish and install sheeting together with all bracings as required for excavations in accordance with the provisions contained herein.

B. General Requirements

- 1. <u>Shop Drawings</u> The Contractor shall submit to the Engineer for approval, shop drawings and other material required to substantiate conformance with the requirements set forth on the Contract Drawings and these Specifications.
- 2. <u>Calculations</u> The Contractor shall submit to the Engineer for approval design calculations of his proposed sheeting and bracing plan. Such calculations shall incorporate all applicable loads as per the New York City Building Code and shall be signed and sealed by a New York State licensed professional engineer. The Contractor shall include with the calculations his detailed plan of operation as regards to the installation of the sheeting, method of excavation and removal of sheeting for the review by the Engineer.
- 3. The Contractor shall have at least three (3) projects similar in scope and type within the last five years in driving sheet piles.
- 4. The Contractor shall be responsible for the adequacy of all sheeting and bracing and for all damage resulting from sheeting and bracing failure or from placing, maintaining and removing it.

C. <u>Construction Sheeting</u>

- 1. <u>General</u> Sheeting required by the Contractor for sheeting excavations, etc. shall be designed and submitted by the Contractor for the Engineer's review. Sheeting shall be removed at the conclusion of construction unless otherwise indicated or approved by the Engineer. Sheeting shall be either steel or wood sheeting as specified herein below.
- 2. Steel Sheeting Sheeting shall conform to the requirements of ASTM A328. Sheet piles shall be new and shall be of the continuous interlock type of the section, length and weight shown on the Contract Drawings.
- 3. Structural steel and other accessories such as walers, braces, tie-rod assemblies, plates and similar members used with sheet piling shall conform to ASTM A36.

- 4. <u>Fastening</u> Bolts, nuts and washers shall conform to the requirements of ASTM A325 or A307. Connections shall be provided by the Contractor in accordance with AISC Specification for the Design, Fabrication and Erection of Structural Steel. Connections shall be subject to the Engineer's approval. Welding shall conform to the requirements of Detailed Specification 7.106, Welding.
- 5. Wood Sheeting Timber of wood sheeting shall be Douglas Fir standard grade or Southern Yellow Pine No. 25R with extreme fiber unit bending stress not less than 1200 psi. All lagging shall be full size lumber (undressed), and shall be sound, free from shakes, large knots, and other defects which might impair its strength. Used timber may be furnished if equal in strength to that of corresponding new timber. Where conditions require tight sheeting to prevent loss of ground, tongue and groove wood sheeting shall be used.
- 6. <u>Sheeting to be Left in Place</u> Construction sheeting to be left in place shall be indicated on the drawings. The Contractor shall cut off piling 2 ft. below ground surface or to the grades shown on the Contract Drawings.
- 7. <u>Bracing and Anchorage</u> Bracing and anchorage shall be shown on the shop drawings.
- 8. <u>Installation</u> The Contractor shall examine the areas and conditions under which steel sheet piling is to be installed. The Contractor shall notify the Engineer in writing of conditions detrimental to the proper and timely completion of the work. The Contractor shall not proceed with work until unsatisfactory conditions have been corrected in a manner acceptable to the Engineer.

D. <u>No Separate Payment</u>

The quantity to be measured for payment under this Section shall be the total number of square feet supplied and installed in accordance with the plans and specifications and direction of the Engineer.

All costs for the installation of sheeting and bracing performed in conjunction with the construction and installation of concrete structures will be included under the unit bid price for Concrete Structures Section 7.129.

7.111 <u>VALVES</u>

A. <u>Description of Work:</u> The Contractor shall furnish, shop test, install, adjust, field test and place in satisfactory operation the valve, and auxiliary equipment as shown on the Contract Drawings, specified herein and as required for a complete installation.

B. General Requirements

1. Shop Drawings. The Contractor shall submit to the Engineer for approval shop drawings to substantiate conformance to the requirements set forth on the Contract Drawings and these Specifications. Shop drawings shall include, but not be limited to, outline and dimensional drawings including detailed sections of the equipment, complete equipment and component identification, and material specification.

Drawings shall include comprehensive schematic diagrams showing wiring for each individual item of electrical equipment and all interconnecting wiring, comprehensive schematic diagrams showing all hydraulic elements; the latter to be clearly indicated so it can be furnished and installed by others, if such is applicable.

A listing of the quantity and type of recommended lubricants, spare parts and special tools and appliances to be furnished shall be included with the shop drawing submittal.

C. Gate Valves

- 1. Gate valves shall be flanged end, metal seated, rising stem type valves. Bodies, gates and stems shall be Type 304 stainless steel. Flanges shall be carbon steel. Packing shall be TFE impregnated synthetic fiber. Valves shall have offset, bevel gear operators arranged as shown on the drawings. Valves shall be DeZurik gate valves or equal.
- 2. All buried valves and other valves located below the operating deck or level, specified or noted to be key operated, shall have an operator shaft extension from the valve or valve operator to finish grade or deck level, a 2-inch square AWWA operating nut. All valves shall have a 5 1/4 " valve box with a locking lid with a 5 point hex head brass bolt. The locking lid shall be as manufactured by Star Pipe Products or approved equal.

Except as otherwise specified, all buried valves shall be painted with 2 coats of asphalt varnish in accordance with the requirements of

AWWA Standard C 500. This protective coating shall be protected from damage until the valve is backfilled.

3. All operators, unless otherwise specified, shall turn counter-clockwise to open. All valve operators shall be provided with the valve by the valve manufacturer. The valve manufacturer shall be solely responsible for the selection of the proper operator to meet the operating conditions specified herein. Field calibration and testing of the operators and valves to ensure a proper installation and an operating system shall be the responsibility of the valve manufacturer.

All valves shall have a minimum design pressure rating of 150 psi and capable of a test pressure of 300 psi. Buried service valves shall have mechanical joint pipe ends. Buried service valves shall be provided with AWWA operating nuts, extension stems and cast iron valve boxes. Extended valve stems, stem guides and operating nuts shall be provided as indicated or required.

4. Valves for buried service for nominal pipe sizes 3 to 12 inches shall be resilient seats and non-rising stems with double O-ring seals conforming to AWWA C509. The ends of valve ends shall be flanged, mechanical joint, or Aring-title joint as required for the type of pipe used. Valves shall be provided with 2 inch square operating units.

D. Execution

1. Installation

The procedures regarding unloading, inspection, storage and where applicable installation, described in the Appendix of AWWA C500 entitled Installation, Operation and Maintenance of Gate Valves shall be used for all valves.

All valves shall be manually opened and closed before installation to check their operation, and the interior of the valves shall be cleaned. Valves shall be placed in the positions shown on the Drawings.

2. <u>Valve Supports</u>

Valves shall be supported as integral components of the piping systems.

All horizontally mounted valve operators whose weight exceeds 25 pounds shall be supported independently of the valve and piping system.

All vertically mounted valve operators whose weight exceeds 100 pounds shall be supported independently of the valve and piping system.

Valve supports shall anchor the valves against an unbalanced force in either direction. The magnitude of the force shall be based on a pressure equal to twice the maximum working pressure with a maximum allowable stress of 2 of the supports yield strength.

3. Testing

All valves shall be hydrostatically field tested at the aforementioned test pressures. Any leakage of a sweating of joints shall be stopped and all joints shall be tight.

Testing shall be performed in accordance with the specifications and the ANSI and/or AWWA standards contained herein including leakage tests. Copies of the certified test results shall be provided by the manufacturer to the Contractor and submitted to the Engineer for approval.

The Contractor shall obtain and submit certified statements that the valves comply with the requirements of the standards specified herein.

4. <u>Painting and Coatings</u>

Valves shall be shop primed for interior and exposed piping service and shall be coated for buried service with a one (1) mil coating in conformance with the outside coatings.

E. <u>No Separate Payment</u>

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.

* * * *

7.112 <u>STONE PIERS FOR PEDESTRIAN/VEHICLE ENTRANCE</u>

A. General

Under this item, the Contractor shall furnish and erect stone piers as shown on the plans in accordance with the plans, specifications and directions of the Engineer.

B. <u>Materials</u>

1. <u>Capstone</u>: Capstone shall be locally quarried Bluestone as supplied by Tompkins Bluestone Company, Inc., P. O. Box 776, Hancock, New York 13783 (607-637-5222 - Bill Mirch) or approved equal.

Bluestone shall be tough sound durable and fine grained, uniform of color and free from imperfections. When available, Bluestone shall have a "green-brown" hue to better match the Wallstone.

2. <u>Physical Properties for Bluestone:</u>

- a. Absorbency: 1.57% at 96 hours.
- b. Compressive strength across strata: 17,400 psi.
- c. Abrasion resistance: Ha 49.
- d. Color: blue, blue grey, rust, purple.
- e. Finish: natural cleft, top and bottom.
- f. Edges: sawn, thermal edges at corners.
- g. Joints: 3/8" maximum.
- h. Thickness: 1-1/2" to 2-1/4", $\Box 1$
- 3. <u>Wallstone</u>: Wallstone shall consist of PA colonial Fieldstone (specification 7.204).
- 4. <u>Mortar</u>: Mortar shall be colored to match the stone as approved by the Engineer.

The mortar shall be as follows:

1 part Portland Cement 2 parts Hydrated Lime

8 parts Sand

5. <u>Dowels</u>: Dowels, anchor, ties and clamps shall be stainless steel or other approved non-corrosive material.

Dovetail anchors shall be DOVETAIL ANCHOR DCWA-G14 (stainless steel), five (5) inch minimum length, as provided by Gateway Erectors, Inc., Chicago, Illinois or approved equal.

- 6. <u>Concrete</u>: Concrete shall comply with the requirements of Section 7.103 of the Detailed Specifications except as modified herein.
- 7. <u>Reinforcing</u>: Rebars shall be as indicated on the plans, meeting the requirements of Reinforcing Steel in 7.104.
- 8. <u>Crushed Stone</u>: Crushed stone shall meet the requirements in Section 7.305.
- 9. <u>Forms</u>: All forms shall be set true to line and grade and held rigidly in position. They shall be either of metal or of acceptable planed and matched lumber and of such construction that a smooth surface shall be provided.

The forms shall be left in place until the concrete has set sufficiently so that in the opinion of the Engineer they can be removed without injury to the footing.

C. Execution

1. <u>Construct concrete footing for piers.</u> The Engineer must examine all work prepared by others to receive work on the brick pier and report any defects affecting installation to the Contractor for correction.

All forms for concrete piers and footings shall be constructed of good quality, new, sound lumber with sufficient strengths, bracings and ties to retain their shape and position during, and after pouring of concrete. They shall produce plumb, true and even surfaces.

Removal of forms shall be subject to the Engineer's approval. Time lapse after placement of concrete shall depend on curing procedure, prevailing temperatures, etc.

All reinforcement must be accurately cut and formed to conform with the plans and details and shall be securely tied with wire at intersections to prevent displacement.

All bars shall be bent cold. Only competent mechanics shall be employed for cutting and bending and proper appliances shall be provided for such work.

No concrete shall be poured until the Engineer has inspected the placing of the reinforcement metal and gives permission to place the concrete.

Dovetail anchors for stone work shall be placed every two courses in appropriate locations.

Placement of Concrete: Concrete shall be conveyed from a mixer to the place of final deposit by methods which will prevent separation or loss of ingredients. Equipment for chuting, pumping and conveying concrete shall be of such size and design as to insure continuous flow of concrete at delivery and without separation of materials. Concrete shall be thoroughly worked into forms and around reinforcement and thoroughly compacted by means of an approved mechanical vibrators.

Airing: All concrete shall be kept in a continuously moist condition for a period of at least three days.

The gate manufacturer shall install the structural support system. The Contractor shall not pour the core concrete until approved by the gate manufacturer and the Engineer.

Do not construct masonry during freezing weather.

Facing stone shall be laid up in the pattern shown on the Drawings by skilled masons and in a first-class manner. Stone shall be laid plumb, true to line and grade with level courses accurately spaced throughout and be anchored as shown on plans and herein specified. Mortar joints between stones as specified on the drawings. Stone shall be laid with a satisfactory bonds and as the work progresses, shall be raked back in courses unless otherwise permitted by the Engineer. Dovetail anchors shall be fully imbedded in mortar.

Limestone capstone shall be fabricated in the dimensions shown in the plans and shall be set in a full mortar bed as shown and specified.

All fresh stonework shall be carefully protected from freezing and from drying effect of the sun and wind, and if required, it shall be sprinkled with water at such intervals and for such time as may be directed. All completed stone shall be protected from damage of all

sorts and all portions which may become damaged or may be found defective shall be repaired, or if directed, removed and rebuilt.

3. Joints

- a. Tool head joints first, then bed joints.
- b. Remove stones disturbed after laying; clean and relay in fresh mortar. Do not pound corners to fit salvaged precast piece. If adjustments need to be made, remove units, clean off mortar and reset in fresh mortar.
- c. Strike concealed joints flush.
- d. Rake out mortar in preparation for caulking or sealant where required.
- 4. <u>Setting</u>: Stone shall be set in full beds of setting mortar and all end and backup spaces completely filled. Care shall be taken to keep the face of the piers clean and free of mortar or droppings. Use only sufficient water to effect a thorough mixing of the mortar ingredients. Mortar shall be as stiff as practicable. Mortar joints shall be raked 1" deep for pointing.
- 5. Precautions against freezing: All masonry shall be protected against freezing for not less than forty-eight (48) hours after installation; and shall not be constructed below thirty-six (36) degrees F without temporary heated enclosures or without heating materials or other precautions to prevent freezing. No frozen materials shall be used nor shall frozen masonry be built upon.
- 6. Anchoring and Bonding: Stone facing shall be securely and/or bonded as shown on the drawings and/or as directed. All stone shall be properly secured to backup concrete with dovetail metal anchors. Sufficient anchors shall be used to provide four anchors per square yard of stone facing. Metal anchor slots shall be imbedded in the concrete work by trade erecting the forms.
- 7. <u>Pointing</u>: Joints can be pointed at the time stone is set. Joints not pointed at the time stone is set shall be raked out to a depth of at least 1 inch, wetted and well packed with pointing mortar and finished with a tooled joint. Pointing shall match the adjacent existing wall.
- 8. <u>Setting Capstones</u>: The capstones shall be set plumb, secured and set in a full bed of mortar. If capstone needs to be shimmed, mortar

shall be injected under the capstone to provide a full and even bearing. Mortar shall be a 1:3 cement sand mixture.

D. Protection of Stonework

- 1. During the progress of the work, the tops of the stonework shall be adequately and substantially protected by covering with tarpaulins, securely held in place or other approved manner. Covering must be maintained at night and at all other times when work has been stopped for any reason.
- 2. All stone liable to be injured, or where directed, shall be protected by approved manner and protection maintained until stone is to be cleaned.
- 3. Material that will stain the stone shall not be used for the protection of stone.
- 4. The Contractor shall protect the finished stonework from damage until final acceptance. Special attention shall also be given to the work of other trades or other Contracts to take all necessary precaution to prevent damage to the stonework and other adjacent work.

E. Submittals

1. Shop drawing and samples for stone and reinforced materials for this item showing length, shapes, profiles, finishes, joints, dowels, anchors, cutting and fitting have to be submitted to the engineer for approval prior to cutting and delivery of the stones. No work shall be started until shop drawings and samples have been approved by the Engineer. The Contractor shall wait for the final approval of the Engineer before starting work. The Contractor shall carefully check and assume full responsibility for the accuracy of this work. All work shall be executed in strict accordance with the shop drawings.

F. Measurement and Payment

The quantity to be measured for payment under this Section shall be the total number of cubic feet of stone and mortar furnished and laid complete in the work in accordance with the plans and specifications and direction of the Engineer.

The contract price per cubic foot of approved stones shall be indicated on the Bid Schedule of Prices Item No. BMP -7.112. The bid price shall be a unit price per cubic foot of stones furnished and incorporated in the work

complete, and shall include formwork, expansion joint material, mortar and fine grading as well as the cost of furnishing all labor, materials, equipment and incidentals necessary to complete the work in accordance with the plans and specifications to the satisfaction of the Engineer.

The cost for all labor, materials and equipment required for the 3,500 psi concrete footing and for foundation wall shall be included in the price bid under BMP-7.103 DETAILED SPECIFICATIONS FOR CONCRETE.

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7.113 <u>MISCELLANEOUS PIPING</u>

7.114 <u>STEEL WEIR PLATES</u>

7.114B FRP WEIR PLATES

A. Work Included

- 1. <u>Description</u> The Contractor shall provide all labor, materials, equipment and incidentals as shown, specified and required to furnish and install fiberglass-reinforced weir plates complete and operational with all anchor bolts, fasteners and accessories.
- 2. <u>Shop Drawings</u> The Contractor shall submit to the Engineer for approval shop drawings and other material required in accordance with the requirements set forth on the Contract Drawings and the Specifications. Shop drawings include, but are not limited to:
 - a. Manufacturer's literature, illustrations, specifications and engineering data including: materials of construction, dimensions, weight and performance data.
 - b. Drawings showing the general arrangement of the weir and methods of installation with detailed mounting information.

B. <u>Materials</u>

- 1. <u>General Information</u> FRP weir plates shall be 1/2" thick unless otherwise noted and constructed to the dimensions as per Contract Drawings.
- 2. Bolting hardware shall be locking type.
- 3. Bolting Hardware shall be type 316L stainless steel for all bolts, nuts and washers.
- 4. A neoprene side seal shall be placed on the sides of the weir plates. The neoprene side seal material shall be D2000 grade 2BC515.

C. <u>Details of Construction</u>

- 1. Weir plates shall be type I fabricated as defined in Section 1.1 of AWWA F102.
- 2. Weir plates shall be constructed with the following material:
 - a. Fibrous Glass: Materials used shall be continuous filament Type E (electrical borosilicate), glass with a chrome or silane finish and a styrene soluble binder compatible with the resin. Surfacing veil, if used, shall be 0.010 to .020

inch thick Type C (chemical) or equivalent with silane finish and a styrene soluble binder on both sides.

3. <u>Additives:</u> Use thixotropic agents, mold release agents, promoters catalysts and low-shrink thermoplastic agents required for molding compounds used in the matched-die molding.

4. Plastic Resin:

- a. Resin shall be a commercial-grade polyester thermosetting resin, which has either been evaluated in a laminate or which has been determined to be acceptable for the service conditions intended.
- b. Resin shall contain no fillers or additives except as follows:
 - 1. A thixotropic agent, up to 5 percent by weight, which does not interfere with laminate quality or with the required chemical resistance of the laminate, may be added for viscosity control.
 - 2. Pigments, dyes or colorants used shall be light stable, not soluble in water and compatible with the resin. Color shall be selected by DEP's authorized representative.
 - 3. Ultraviolet Stabilization: Provide 0.25 percent by weight ultraviolet stabilizers in all laminates. The laminate shall exhibit not greater than 2 percent deterioration of flexural and tensile properties after 1000 hours of exposure in a Type E, single openflame, sunshine carbon-arc lamp apparatus as detailed in ASTM G23.

D. <u>Laminate Construction For Weir Plates</u>

- 1. General: Produce fiberglass-reinforced plastic fabrications by the matched-die molding process to ensure smooth resin-rich surfaces and edges, dimensional accuracy and consistency. Mold weir plate notches within dies for increased corrosion and weather resistance. Sand and seal all cut edges with non air inhibited resin to ensure edges are completely sealed and to prevent water or chemical penetration of laminate. The laminate shall consist of exterior layer and an interior layer.
- 2. Exterior Layer: The exterior surface shall be free of cracks and

crazing with a smooth finish. This surface shall consist of 0.01 to 0.02 inch of resin-rich layer reinforced with chopped strand glass. Other methods of surface protection shall be submitted to the Engineer for approval.

3. <u>Interior Layer</u>: The interior layer shall be constructed to provide the necessary physical properties. Where separate layers such as mat, cloth or woven roving are used, all layers shall be lapped a minimum of one inch. Laps shall be staggered. If woven roving or cloth is used, a layer of chopped strand glass shall be placed as alternate layers. A minimum of 0.1 inch of the laminate next to the exterior surface shall be reinforced with non-continuous glass strands having fiber lengths from 0.5 to 2.0 inches.

Laminate glass to resin ratio shall be 30 percent glass and 70 percent resin.

4. <u>Cut Edges</u>: All cut or machined edges shall be coated with resin with all voids filled and no glass fibers exposed.

5. <u>Dimensions:</u>

- a. Flat Crested Weir Edge; Weir plates shall be straight and vary not more than ±1/8 inch in 3 feet.
- Weir Plate Anchor Bolt Holes/Slots Holes for wall mounting shall be dimensioned as shown on contract drawings. Variation in center-to-center dimensions between holes shall not exceed ±1/8 inch.

6. Finish and Appearance:

- a. The flat surfaces and edges of all weir plates, baffles, mounting brackets, closure plates and gates shall be free from porosity, voids and dry glass. Make surfaces and edges resin-rich to provide maximum resistance to corrosion and weathering.
- b. Fabrications containing porosity, voids, dry glass, delamination or defects not allowed in Table 1 of AWWA F102 may be rejected. Repair of defects to meet maximum allowable level of deviation specified in Table 1 of AWWA F102 will be permitted provided repair work is performed in a neat manner, is blended smooth and does not affect the serviceability of the fabrication. All such remedial work shall be subject to approval of Engineer.

7. <u>Minimum Physical Requirements</u>: All laminates shall meet the minimum physical properties listed below:

Value of Property	Test Method	Property
Tensile Strength	ASTM D638	15 x 10 ³ psi
Flexural Strength	ASTM D790	25 x 10 ³ psi
Flexural Modulus	ASTM D790	0.8 x 10 ⁶ psi
Barcol Hardness	ASTM D2583	40
Izod Notched Impact	ASTM D256	13 ft-lb/in.
Water Absorption (24 hr @ 23°C)	ASTM D570	0.1% max.

E. <u>Accessories</u>

1. Provide all mounting brackets, anchor bolts, supports, stabilizing bars, angles or rods, fasteners and similar accessories required for installation of the equipment furnished. All metal accessories shall be Type 316 stainless steel.

F. Manufacturer

- 1. Plasti-Fab, Inc.
- 2. Warminster Fiberglass Company
- 3. Or equal.

G. <u>Inspection</u>

- 1. Contractor shall install all Work in complete accordance with the manufacturer's instructions and recommendations, and the approved Shop Drawings.
- Contractor shall not install damaged items until repairs are made in accordance with manufacturer's written instructions and approval by Engineer. Only minor repair work will be permitted in the field. All damaged items requiring remedial work shall be returned to the manufacturer for repair or replacement.

H. Installation Of Weir Plates

1. Install all work in conformance with the approved Shop Drawings.

- 2. Install at locations and elevations shown, unless otherwise approved by the Engineer.
- 3. Set all weir plates level within $\pm 1/16$ -inch over the entire weir length unless noted otherwise on the contract documents.

I. <u>No Separate Payment</u>

No separate payment shall be made for this work of the specification. All cost shall be included in the various Contract Items of this Contract.

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7.115 <u>HOODS</u>

7.116

ALUMINUM SLIDE GATE

7.117 GRAFFITI RESISTANT COATING

A. <u>Description of Work</u>

Under this Item, the Contractor shall furnish and apply Graffiti Resistant Coating to exterior stone, concrete, wood or other surfaces in accordance with OSHA guidelines, manufacturer's recommendations and the plans, specifications and directions of the Engineer.

B. General

The Contractor shall apply Graffiti Resistant Coatings as follows:

- 1. For <u>previously painted</u> masonry, concrete (vertical surfaces) and bethabara wood (both painted and unpainted), metal surfaces (both painted and unpainted), apply Graffiti Solution System (G.S.S.) manufactured by American Polymer Corporation, ARMAGLAZE, 9000 manufactured by Aquarius Coating, Inc., or approved equal
- 2. For new and unpainted masonry and concrete, the Contractor shall apply Professional Water Sealant & Anti-Graffitiant, manufactured by Professional Products of Kansas, Inc., Blok-Guard & Graffiti Control Ultra manufactured by Prosoco, Inc., or approved equal.

C. Quality Assurance

Graffiti Resistant Coating shall be applied <u>only</u> by an approved installer per installation instructions who shall be trained by the manufacturer of each respective product and shall be certified by the manufacturers as qualified to install materials specified for this project. Only qualified Contractors or Subcontractors and their trades persons, meeting the above requirements shall be deemed approved. Submit a copy of current SSPC Certificate if applicable.

D. <u>Product Delivery, Storage and Handling</u>

- 1. The Contractor shall deliver materials in sufficient quantity to allow for continuity of work. Protect all materials and equipment during transit, delivery, storage and handling to prevent damage and deterioration.
- 2. Avoid fire; open flame and sparks. Container contents, even when empty, may ignite explosively when exposed to heat, welding, cutting torch, pilot lights and other flames and ignition sources at locations distant from the material storage and handling point.

- 3. Avoid inhalation, ingestion, skin contact, and eye contact.
- 4. Protect shrubs, plants and grass during application. Avoid wind drift which may injure passersby or damage vehicles and adjacent properties.
- 5. For additional cautions, human health data and protective equipment to be used (including respiratory) refer to Material Safety Data Sheets.
- 6. Containers shall be kept closed when not in use.
- 7. Dispose of excess waste materials and empty containers in accordance with all local, state and federal regulations. Empty containers as may be classified as hazardous; they retain product residues such as vapor, liquid or solid. Do not transfer contents into other containers for storage.

E. <u>Products</u>

- 1. "G.S.S" Coatings. Note: This coating shall be applied to surfaces listed under "General" heading of this Specification (i.e. previously painted masonry, concrete and wood surfaces and metal surfaces both painted and unpainted).
 - a. G.S.S. Barrier Standard: Sealer product; standard undercoat <u>not</u> high solids version. This <u>Standard</u> version shall be used with <u>Clear</u> overcoat. Barrier shall be applied over painted porous surfaces (not metal)¹
 - b. G.S.S. Barrier High Solids: Shall be used with <u>Pigmented</u> top coat. The high solids version is <u>not</u> recommended for use with clear top coating. High solids barrier consists of a one component, acrylic copolymer coating (see Manufacturer's Product Guide for more information).
 - c. G.S.S. 10 Clear Coating (Low VOC): Anti-graffiti product; overcoat G.S.S. 10 consists of a polymer composition; two (2) component resin and catalyst system. It is a non-sacrificial permanent coating with <u>flat/matte finish</u>. G.S.S. 10 Part A is premeasured to use for Part B.
 - d. G.S.S. Pigmented Coating: Anti-graffiti product; top coat. Two (2) component polyurethane, non-sacrificial, protective

¹For steel and aluminum surfaces, in lieu of G.S.S.-Barrier, use a water-borne urethane primer such as Bond-Plex, manufactured by Sherwin-Williams Company; or approved equal.

coating. Color shall be selected from either the manufacturer's standard color guide or Sherwin-William Industrial and Marine Coatings, System 4000 color chart or approved equal. Finish shall be <u>flat/matte</u> (not gloss) unless otherwise noted. (pigmented coating shall be used in lieu of clear coating when previously painted substrate is not uniform in color and requires concealing with an opaque top coat.)

2. <u>P.W.S. Coatings</u>: Note: This coating shall be applied to surfaces listed under "General" heading above (i.e. <u>new and unpainted</u> masonry and unpainted concrete).

F. <u>Execution</u>

1. Surface Preparation

Surfaces shall be thoroughly dry, cleaned and free of dust, a. surface dirt, oil, grease and other contaminants that might prevent penetration of the coatings. Newly constructed surfaces, repointed surfaces and concrete shall be cured for at least 28 days before application. Glossy, glazed and slick troweled surfaces should be lightly etched or abraded before application of coatings. Surface defects, voids, joints or cracks must be properly sealed or filled, allowing any patching compounds to be completely cured before Cleaning may be accomplished by high application. pressure washing, sand blasting or chemical cleaning. When chemicals are used, they should be removed by high pressure water cleaning before application of the sealant. Use of raw acids shall not be permitted. Allow cleaned surfaces to dry completely. A test must always be made prior to application using the same cleaning and application procedures as to be used on the project. This test area shall remain available to be inspected by the Engineer.

G. Application Procedures

- 1. General product application must <u>not</u> be initiated during inclement weather, or when precipitation appears imminent. Application should be completed at least four (4) hours before precipitation begins.
- 2. For the G.S.S. Type Coating Systems consisting of both undercoat and topcoat, <u>refer to manufacturer's Application Guide</u> along with information specified herein.

- a. G.S.S. Barrier Undercoat sealer shall only be applied when temperature is between 50°F and 95°F. The surface to receive Barrier shall be visibly dry and relative humidity shall be such that condensation does not form on the surface during application.
- b. Apply two (2) coats of Standard Barrier Undercoat (3 to 4 mils total) over all previously painted masonry and wood surfaces using either brush, roller or spray. Ensure that the coatings are applied evenly and built up sufficiently to create a protective layer over the underlying surface and to eliminate any future "shadowing" or "ghosting" which would appear after the graffiti removal if the surface is not adequately sealed and coated. Barrier shall be applied creating a pinhole-free surface. Allow 1 to 2 hours between coatings. Avoid over-application of Barrier coating to avoid pooling or pudding which can result in permanent whiting. Application of Barrier in direct sunlight can also result in permanent whiting.
- G.S.S. 10 Overcoats shall be applied over G.S.S. Barrier c. undercoat. Prior to installation of overcoats, the barrier coats shall be allowed a minimum of 12 hours drying time. Moisture shall not be permitted on undercoating prior to application of G.S.S. 10 coating. G.S.S. 10 shall be activated by mixing parts A and B. These two portions have been premeasured at a precise ratio. The Contractor shall not mix at any other ratio and shall not add thinner or water. Part B shall be poured into Part A container. While mixing together, stir well with a lifting motion to ensure that the two parts are well balanced. If the coating must be thinned for application purposes, thin with MEK only and only after Parts A and B have been mixed together. The coating may be applied by brush, roller or spray. Apply two (2) coats of G.S.S. 10 of 1 to 2 mils thickness each coat. Allow one (1) to two (2) hours before applying the second coat. If using roller, direct the roller upwards from bottom toward top maintaining a wet wedge.
- d. Coverage rates will vary depending upon porosity of the surface and method of application. Once activated, the coating has a pot life of approximately 4 to 6 hours under normal conditions (80°F or less). The lid shall not be left off the container unnecessarily.

- H. For the Professional Water Sealant (P.W.S) Type Cleaning System, refer to Manufacturer's Application Guide along with information specified herein.
 - 1. P.W.S shall be applied only when temperature is between 60°F and 80°F and relative humidity is 50%. Under these ideal weather conditions, the coating will dry to the touch in approximately twenty-five (25) minutes. At lower temperatures, drying time will be longer.
 - 2. The coating shall be applied over all new and unpainted masonry, concrete and wood surfaces using a two (2) coat application process, with a drying time of not more than two and one-half (2-1/2) hours between applications.
 - Curing time will vary depending upon the temperature and humidity conditions. The second coat shall require six (6) to eight (8) hours to develop full graffiti protection.
 - 3. On vertical applications, P.W.S. shall be applied with a low pressure airless sprayer at an angle to allow the sealant to run down the face rather than to penetrate deep into the voids of the substrate. On porous and rough stone surfaces, it shall be necessary to apply a mist coat before flood coating.
 - 4. On horizontal surfaces, such as wooden bench slats, P.W.S. shall be applied by brooming, brushing, rolling or using airless spray equipment. The coating shall not be permitted to puddle or pond. Over-application may cause surface to become slippery when wet. Excess sealant shall be wiped up immediately.
 - 5. For low pressure spray application, the setting shall be about 40 psi to avoid atomization of the material. Spray equipment shall be fitted with stainless steel or brass fittings and gaskets suitable for solvent solution. A fan spray tip of 50E with flow rate of approximately 4/10 of a gallon per minute is recommended. Coatings shall be applied in a saturating spray application from the top down. Apply sufficient material to create a six (6) inch to eight (8) inch rundown below the contact point. Allow the first application to penetrate the masonry surface until dry to the touch. If a second application is required, less material will be needed.
 - 6. For brush application, brushes should be nylon or other synthetic material resistant to solvent solution. When applying Professional Water Sealant with a brush, apply sufficient material to thoroughly saturate the surface. Avoid excessive overlapping. Take care of

brush out runs and drips, and to avoid buildup of Professional Water Sealant.

7. Container shall be kept tightly sealed until ready to use. Stir thoroughly before use. Product shall not be diluted or altered in any way. Coverage rates will vary depending upon surface porosity and texture. Once opened, Professional Water Sealant must be used within 24 hours.

I. <u>Clean-Up Instructions</u>

Clean application equipment immediately after each use. For G.S.S products, avoid having the G.S.S. 10 coating set up on or inside application equipment, by cleaning frequently with any of the following solvents (do not use solvents other than listed): xylene, lacquer thinner, MEK or n-btyl acetate. If coating has begun to set up and cannot be cleaned with the above, G.S.S. Erasol shall be used for cleaning. All drips and over spray shall be cleaned while still wet. For spraying equipment, cleaning with MEK every one (1) to two (2) hours is recommended. Since G.S.S 10 adheres permanently to surfaces, including human skin, spills shall be cleaned immediately. For P.W.S. products, clean equipment with mineral spirits or paint thinner.

J. <u>Cure Time Required Prior To Remover Use</u>

For G.S.S. products, full curing time required before graffiti can be removed from newly applied protective coating is seven (7) days at ambient temperatures. Curing period is longer during cooler temperatures. A test patch shall be performed during cooler temperatures to determine whether the G.S.S. 10 top coat has cured sufficiently to remove graffiti with Erasol Remover product. Apply a small amount of Erasol Remover product on a clean spot of the coated surface and let it stand for 24 hours undisturbed. When the coating appears to have softened, it has not fully cured. When the coating remains hard, then Erasol may be used to remove graffiti.

K. Graffiti Removal

- 1. For permissible materials to be used in removing any graffiti which may accumulate during construction contract duration, the Contractor shall refer to listing found under Section 7.116.12 (Extra Materials).
- 2. For graffiti removal procedures, see manufacturer's literature and instructions. Use of chemicals which are <u>not</u> included in manufacturer's list of components for remover system may <u>damage</u>

or <u>remove</u> the protective coating, thereby necessitating the reapplication of sealant/coating systems.

3. Use of remover products which are <u>not</u> part of the complete system (i.e. not manufactured by the same companies as protective coatings) will <u>void</u> the 10 year manufacturer's warranties/guarantees.

L. Submittals

- 1. The Contractor shall submit manufacturer's technical data sheets, vapor transmission testing results and applicable OSHA regulations for storage, handling and application of both the Graffiti Resistant Coatings and Graffiti Remover products to the Engineer for approval.
- manufacturer's 2. The Contractor shall submit guarantee/warranty for a period of ten (10) years from the date of purchase, stating that the coatings will allow for the removal of all types of paint and other graffiti materials when same manufacturer's removal product has been used subject to listing of manufacturer's limitations which shall be included with the submittal. Manufacturer and/or its Certified Applicator shall remove the graffiti and recoat the surface at their own expense. The G.C. Contractor shall provide, sealed in plastic, a statement of the warranty with the name, telephone number and address of the manufacturer of the product to be contacted in the event that product fails. G.C. shall forward one (1) copy of the warranty to the following at the time of final acceptance:

DEP Staten Island Bluebelt Field Office 182 Joline Avenue Staten Island, New York 10307 718-984-0489 718-984-4430 (fax)

3. The Contractor shall submit <u>written certification from the respective manufacturers of coatings</u>, certifying that installers have been properly trained and are currently approved by the manufacturers to install the specified graffiti resistant coatings. Provide copy of certification to the Engineer prior to start of Contract work.

M. Measurement and Payment

The quantity of graffiti resistant coating to be paid for under this Item shall be the number of square feet of surfaces prepared, coated and cured in

accordance with the Contract Drawings, Specifications and directions of the Engineer. The price bid shall be a unit price per square foot as indicated on the BID SCHEDULE OF PRICES, Item No. BMP-7.117. The bid price shall include the cost of all labor, materials, equipment and incidental expenses necessary to complete the work of furnishing and installing graffiti resistant coatings including surface preparation, application and proper curing of coating and maintenance of surfaces coated throughout contract duration, all in accordance with the plans, specifications and to the satisfaction of the Engineer.

7.118A <u>BEEHIVE GRATES</u>

7.119 <u>LADDERS</u>

7.120 TRASH RACK

A. Work Included

1. <u>Description.</u> The Contractor shall furnish and install trash rack as shown on the Contract Drawings.

The work shall include all labor and materials necessary to furnish, paint, deliver, install and test the equipment.

2. General Requirements.

- a. <u>General Specifications.</u> Except as modified by the Detailed Specifications, the work performed under this section shall conform to the requirements of the latest NYCDDC Standard Sewer and Water Main Specifications
- b. <u>As-Built Conditions</u> The Contractor shall perform an asbuilt survey to verify all pertinent dimensions prior to fabrication of the bar rack and the Contractor shall have full responsibility for the proper fit of the furnished bar rack sections at the location designated on the Contract Drawings.
- c. <u>Shop Drawing</u>. The Contractor shall submit to the Engineer for approval shop drawings and other material required to substantiate conformance with the requirements set forth on the Contract Drawings. Shop drawings shall include dimensional drawings including detailed sections of structural steel and equipment, complete identification and material specifications.

B. 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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7.121 <u>MANHOLES, CHAMBERS & CATCHBASINS</u>

7.122 MANHOLE STEPS

7.123 ASPHALT PAVING FOR PATH

7.124 <u>TIMBER STOP LOG</u>

SE-803

<u>DIVISION VII - DETAILED SPECIFICATIONS - CONTRACT SE-803</u>

7.125 ACCESS HATCHES

7.126 GRANITE CASCADES

7.127 TEMPORARY ASPHALT PAVEMENT

7.128 <u>ASPHALT PAVING</u>

7.129 CONCRETE STRUCTURES

A. Work Included

The Contractor shall investigate, install, test and place in satisfactory operation all Concrete Structures as shown on the Contract Drawings and specified herein. Concrete Structures include but are not limited to headwalls, retaining walls, perimeter walls, weir walls, hydraulic flow splitters, hydraulic riser boxes, culverts, sewers, chambers, catch basins, manholes, sand filters, pedestrian bridges and stone piers. The Concrete Structures shall be as defined below:

Structure No. 1 – Headwall at Hillside Terrace

Structure No. 2 - Headwall and Weir at Cleveland Avenue

Structure No. 3 – Culvert at Cleveland Avenue

Structure No. 4 - Headwall at Cleveland Avenue

Structure No. 5 - Headwall at La Fontaine Place

Structure No. 6 - Headwall at Clovis Avenue

Structure No. 7 - Weir at Ramble Road

Structure No. 8 - Headwall at Hillside Terrace

B. General Requirements

- 1. General Specifications-The General Specification: 11-Concrete (Dated November 1991) Department Environmental Protection (DEP) is declared to be part of this specification, the same as it fully set forth elsewhere herein. Copies of this specification may be obtained from the Department. Concrete work shall conform to all requirements of that specification except as modified by the applicable sections of this Detailed Specification.
- 2. Refer to Sect 7.103.C: Detail Requirements as contained within this contract specification.

3. <u>Geotechnical Investigation</u>

A geotechnical investigation shall be performed by the contractor prior to construction. The geotechnical investigation shall include borings and a geotechnical report. Borings shall be located as shown, driven to a minimum depth of 35 feet or refusal with continuous sampling. The geotechnical report shall include boring logs, soil testing results, bearing capacity and bearing elevation, soil properties, recommendations on foundation type and subgrade preparation recommendations. Scour shall be considered in the foundation recommendations. The geotechnical report shall be signed and sealed by a Geotechnical Engineer licensed in the state

of New York. The geotechnical report shall be submitted by the Contractor to the Engineer and DEP Representative. The Contractor may be required to revise the design in order to comply with the recommendations made by the Geotechnical Engineer. All modifications are to be submitted to the DEP Representative and the Engineer for review.

4. Submittals

The Contract shall submit to the Engineer for approval shop drawings and other materials required to substantiate conformance to the requirements set forth on the Contract Drawings and the Specifications in accordance with the Standard Sewer and Water Main Specifications. Submittals shall also include all material required under the "Submittals" section of the chapters of General Specification 11, Concrete, and any additional submittals hereinafter specified.

C. Measurement and Payment

The quantity to be measured for payment under this Section shall be the total number of Concrete Structures installed as directed by the Engineer.

The Contract price for each Concrete Structures shall be as indicated on the Bid Schedule of Prices Item No. BMP-7.129-1 to BMP-7.129-8. The bid price shall include all work and equipment necessary to complete this item in accordance with the plans and specifications and to the satisfaction of the Engineer. The Concrete Structures unit price shall include but not be limited to geotechnical investigation, concrete, reinforcement, excavation, backfilling, crushed stone, geotextile, sheeting and bracing, stone facing, hatches, manhole covers, grating, railings, piping, hoods, valves, weir plates, ladders, steps, trash racks and bronze plaque. The unit price shall also include removal of all existing structure and debris found at the proposed new structure location.

D. Concrete Structures Summary

<u>Item</u>	Description
BMP-7.129-1	Structure No. 1
BMP-7.129-2	Structure No. 2
BMP-7.129-3	Structure No. 3
BMP-7.129-4	Structure No. 4
BMP-7.129-5	Structure No. 5
BMP-7.129-6	Structure No. 6
BMP-7.129-7	Structure No. 7
BMP-7.129-8	Structure No. 8

MORTARED STONE WALL

7.201 WORK INCLUDED

Under this item, the Contractor shall furnish all labor, materials and equipment for completing the construction of mortared stone wall 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:

Section Number	<u>Title</u>
7.201	Work Included
7.202	Masonry Mortar
7.203	Masonry Accessories
7.204	PA Colonial Field Stone

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7.202 MASONRY MORTAR

A. Description of Work

1. <u>Description</u>. Furnish all labor and material necessary for the preparation and placing of all mortar for masonry and stone work.

2. General Requirements.

- a. General Specifications. Masonry mortar and grout materials shall comply with the requirements of this Section, except where otherwise shown or specified. Where no description has been specified for any material required, the current Reference Standard RS 10-1, Masonry City of New York Building Code, shall apply. Concrete materials shall conform to the requirements of General Specification 11 Concrete.
- b. <u>Code</u>. The use of masonry cement mortar, as approved by the Board of Standards and Appeals, is optional. Masonry cement mortar shall fulfill the requirements of the Administrative Code of the City of NY and it shall be a mix of one part cementitious material to two-and-three-fourths parts of sand by volume. It shall be furnished in sacks containing one cubic foot each, and shall be marked with the weight.
- c. <u>Test.</u> Masonry mortar samples shall be provided by the Contractor upon request from the Engineer. Samples will be subject to tests in conformance with ASTM C270.
- d. <u>Job mock-up</u>. Sample panels will be constructed at the site. At that time, adjust mortar samples to achieve desired colors at the discretion of the Engineer.

B. Materials

- 1. <u>Cement</u>. Unless otherwise qualified, the term "portland cement" whenever used in connection with masonry work shall conform to the requirements of General Specification 11 Concrete. Masonry cement shall fulfill the requirements of ASTM C91.
- 2. White Portland Cement. White portland cement shall be approved domestic product containing no ingredient that will stain other materials with which the cement comes in contact. It shall not

contain more than 0.03% by weight of soluble alkali and shall fulfill the requirements of ASTM C150.

- 3. <u>Lime Putty</u>. Lime putty shall be made from hydrated lime except that quicklime may be used when adequate time and facilities are available for aging. Suitable precautions shall be taken to protect the putty from exposure to the sun and to prevent excessive evaporation when stored.
 - a. Hydrated lime shall be mixed with the amount of water called for in the printed directions of the manufacturer to form a putty and shall be allowed to stand for at least 24 hours before using. The hydrated lime may be sifted into the water, or the putty may be screened or punched through a sieve, or treated in any other manner, so as to obtain a smooth lump-free putty. Hydrated lime shall fulfill the requirements of ASTM C6.
 - b. Quicklime (pulverized) shall be slaked in suitable large batches, with the amount of water called for in the printed directions of the manufacturer, to form a thick cream. Lime shall be sifted into water. During cool or cold weather, precautions shall be taken to maintain the heat and prevent premature cooling during the process of hydration. The slaked quicklime shall be passed through a No. 10 sieve and stored for at least 72 hours before using. When the use of lump quicklime, slaked on the job, in lieu of pulverized quicklime is specifically approved for plastering, the cooling and aging period shall be not less than 14 days. Quicklime shall fulfill the requirements of ASTM C5.
 - c. Pressure hydrated lime shall be used as recommended by the manufacturer and shall conform to the requirements of ASTM C206.
- 4. <u>Fine Aggregate</u>. Sand shall conform to all the physical and chemical requirements and fulfill all the test requirements of NY Specification 24-S-30 for types as herein specified.

Fine aggregate for thin joints for units with cut or ground edges shall be Class A Type 2A but with not less than 95% passing thru No. 16 sieve.

Fine aggregate for masonry work in general, glass block and plaster shall be Class A Type 2A. For joints which are 1/2" wide or more, Type 2A shall be used.

White sand shall be pure silica sand or marble dust having a gradation approximately within the limits specified for thin joints.

Sand in setting bed mortar for tile shall be as described for masonry work, except that not more than 5% shall pass thru a No. 100 mesh sieve.

Fine aggregate for pointing mortar tile (ceramic and quarry) shall be as specified for masonry work, except that 100% shall pass thru a No. 30 mesh sieve with no more through than 5% passing through a No. 100 mesh sieve.

Before the start of work, sample of fine aggregate shall be submitted to the Engineer for approval.

- 5. Water. Water used in connection with masonry work shall be clean and free of injurious amounts of oil, acid, alkali, organic matter or other deleterious substances, or shall be the water used in the City for drinking purposes.
- 6. Waterproofing and Non-Shrink Admixtures. An approved waterproofing plasticizer with pozzolanic properties containing pure stearic acid and equal to "Omicron" by Master Builders, or "Hydrocide" powder by Sonneborn Building Products Division of Contech, Inc., shall be added to produce a non-shrinking waterproof mortar. Admixture will be mixed with mortar as per manufacturer's requirements or if manufacturer does not specify in a 15:1 volumetric ratio of mortar to admixture.
- 7. Grout shall be mixed to a thick consistency. Neat grout shall be composed of cement and water only. Non-staining cement shall be used for non-staining grout.

C. Mixes

- 1. <u>General Specifications</u>. The mortar mixtures shall conform to ASTM C270. The proportions of cement specified herein are the minimum.
- 2. Type M Mortar. ASTM C270; composed by volume in proportions of 1/2 part portland cement, 1 part masonry cement and not more than 4 parts sand, measured in a damp, loose condition, with waterproofing added, with a minimum average compressive strength at 28 days of 2,500 psi. Use Type III mortar for all masonry work which is below grade.

- Mixing. Mortar shall be freshly mixed and the quantity of each batch shall not be in excess of the amount that will be used before the same has started to set. Retempering will not be permitted. The ingredients for each batch shall be accurately measured and combined in the proportions specified, all parts being measured by volume. Mortar shall be mixed in a batch mixer or by hand and shall be of uniform color and consistency. Mixer drums shall be entirely emptied of a batch before charging for a succeeding batch is started. The mixing time shall be not less than 5 minutes, approximately 2 minutes of which shall be for mixing the dry materials and not less than 3 minutes for continuing the mixing after the water has been added.
- 4. <u>Coloring</u>. Mortar shall be colored using cement during the mixture process. After mixing, mortar shall be of uniform color.

D. <u>Measurement and Payment</u>

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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7.203 MASONRY ACCESSORIES

A. <u>Description of Work</u>

1. The Contractor shall provide all labor, materials and equipment necessary to place all masonry accessories as specified and shown on the Contract Drawings.

2. <u>General Requirements</u>.

- a. <u>Samples</u>. Submit three of each item to the Engineer as specified in the General Conditions.
- b. <u>Job Mock-Up</u>. A sample panel will be constructed at the site. At that time furnish all anchors, ties and reinforcement necessary to construct the sample panel.

c. <u>Manufacturer</u>.

- 1) Acceptable manufacturers of anchors, ties and accessories: Hohmann and Barnard, Inc., Hickman Building Products, Inc., or approved equal.
- 2) Acceptable manufacturers of joint reinforcement: Dur-O-Wall, Inc., AA Wire Products or approved equal.
- 3. <u>Product Delivery, Storage and Handling</u>. Materials shall be stored under cover in a dry place and protected from the elements.

B. <u>Materials</u>

- 1. <u>Anchors and Ties for Exterior and Interior Work</u>. Non-corrosive, stainless steel.
 - a. <u>Corrugated or Crimped Ties</u>. 22 gauge, not less than 7/8-inch wide, not less than 5 inches long.
 - b. <u>Dovetail Type Masonry Anchors for Fastening Stone to Slot Inserts in Concrete</u>. Shall be designed to fit the slots, not less than 16 gauge, 7/8-inch wide, turned up 1/4-inch at the end. Dovetail slots shall be 20 gauge filled type, furnished under this Section and installed under General Specifications 11, Concrete.

C. <u>Installation</u>

- 1. Clean off foreign coatings that will destroy or reduce the bond immediately before placing reinforcing anchors and ties.
- 2. Provide all anchors, anchor slots, ties, masonry joint reinforcement and other anchorage devices necessary to anchor masonry work to the structure and to other masonry.
- 3. Coordinate placement of vertical slots 16-inch o.c. for anchorage of masonry furring and facings in front of concrete. Continuous slots shall not be placed closer than 3 inches to the edges of concrete work.

D. <u>Measurement and Payment</u>

No separate payment shall be made for the Masonry Accessories construction of Concrete Structures. All costs shall be included in the unit cost of the Concrete Structures item, specification section 7.129.

* * * *

7.204 PA COLONIAL FIELD STONE

A. <u>Description of Work</u>

The Contractor shall furnish all labor, materials, equipment and services necessary to install stone facing as specified herein and as shown on the Contract Drawings.

B. General Requirements.

1. <u>Samples</u>. Furnish sufficient stone units including special shapes required, to show range of colors, texture, finishes and dimensions.

2. <u>Job Mock-Ups</u>.

- a. Construct two 4 ft.-0 in. x 6 ft.-0 in. sample panels of stone units, with at least one 90E corner, and coping. Show backup and reinforcement.
- b. The Contractor shall construct the three types of sample panel as often as required by the Engineer to achieve approved samples. Do not proceed with construction until sample panels are accepted by the Engineer.
- c. Retain accepted samples as reference standard for project.
- d. Demolish and remove sample panels from the site after completion and acceptance of all masonry work.
- 3. Store all stone units above ground on level platforms which allow air circulation under stacked units; cover and protect against wetting prior to use.
- 4. Handle units on pallets of flat bed barrows and do not permit free discharge from conveyor units or transporting in mortar trays.
- 5. Do not place concrete masonry units, when air temperature is below 40° F (4° C) without specific instructions in writing from the Engineer.

C. Stone Facing Work

1. Materials

a. Stones: All stones shall be quartzite sandstone, commonly known as Pennsylvania Colonial Field Stone or natural local stone as approved by the Engineer.

All stones shall generally have a minimum length of one (1) foot six (6) inches and a minimum height of six (6) inches. All stones shall generally have a maximum length of three (3) feet zero (0) inches and a maximum height of twelve (12) inches. Stone widths shall generally be no more than twelve (12) inches, and shall generally conform to the width of the stone ledge provided.

All stones shall be free of soil and debris in order to achieve a secure bond with the mortar.

D. <u>Installation</u>

- 1. Lay stone with not less than 1" nor more than 2" of the specified mortar between stone and the back-up wall, and in accordance with the approved mock-up.
- 2. Joints shall have a nominal thickness of 3/8-inch, and uniform.
 - a. Strike joints flush in surfaces not exposed to view.
 - b. Point joints tight in unparged masonry below ground, or water level.
 - c. Tool joints in exposed surface when thumb-print hard with round jointer.
- 3. Contractor shall field verify condition of existing structures and surfaces as per ACI guidelines 201.1R prior to laying of stone.

4. <u>Laying</u>

- a. Lay only dry units. Stones shall be laid in cement mortar so as to form full bed, end and side joints at one operation. Stones shall be laid with flat side down and best side facing outward. Those stones with best face on all sides shall be used for the top course as wall cap.
- b. Stones shall be tightly wedged together and flash point mortared in place.

- c. Provide full mortar coverage on horizontal and vertical face shells. Provide full mortar coverage also on webs, in all starting courses, in piers, columns and pilasters, and adjacent to cells or cavities to be filled with grout.
- d. Shove vertical joints tight.
- e. All stones shall be laid in a horizontal banding pattern, utilizing the one-over-two and two-over-one method. Set units plumb, true and line, and with level courses accurately spaced. Adjust units to final position while mortar is soft and plastic.
- f. Keep open spaces at control joints and expansion joints free of mortar by using a continuous wood or metal strip temporarily set in the wall.
- g. If units are displaced after mortar has stiffened, remove, clean joints and units of mortar, and relay with fresh mortar.
- h. When jointing fresh mortar to set or partially set stone construction clean exposed surface to set masonry and remove loose mortar prior to laying fresh masonry. If necessary to stop off a horizontal run of masonry, rake back one-half block length in each course. Do not use toothing to join new masonry to set or partially set masonry when continuing a horizontal run.

5. Anchors and Reinforcement

- a. Units at corners and at intersections shall be bonded with masonry bond and preformed joint reinforcement spaced vertically 16-inch o.c.
- b. Where block passes concrete, anchor with one dovetail anchor for each 2 square feet of wall surface.

6. Built-In Work

- a. Avoid cutting and patching.
- b. Install bolts, anchors, nailing blocks, inserts, frames, vents, flashings, conduit and other built-in items as masonry work progresses. Solidly grout spaces around built-in items.

c. Coordinate the work of this Section with work of all other trades so that no requirements are overlooked.

7. <u>Protection of Work</u>

- a. Protect sills, ledges and off-sets from mortar drippings or other damage and remove misplaced mortar or grout immediately.
- b. Cover top of walls with non-staining waterproof coverings when work is not in progress. Provide minimum 2 ft. overhang of protective covering each side of wall and securely anchor.
- c. Protect face materials against staining.

8. Pointing and Cleaning

- a. At final completion of unit masonry work fill holes in joints and tool the same.
- b. Cut out and repoint defective joints.
- c. Dry brush masonry surface after mortar has set, at end of each day's work and after final pointing.
- d. Leave work and surrounding surfaces clean and free of mortar spots and droppings.
- e. Wash down all exposed brick with an approved masonrytype detergent, and then thoroughly rinse with clean water.

 Before applying any cleaning agent to the entire wall, apply
 it to a sample wall in a location approved by the Engineer.

 Cleaning shall not proceed until the sample area has been
 approved by the Engineer after which the same materials and
 methods shall be used on the entire work. Acid solutions or
 acid-type detergents shall not be used.

E. Measurement and Payment

The quantity to be measured for payment under this Section shall be the total number of cubic yards of PA Colonial Field Stones and mortar furnished in accordance with the plans and specifications and directions of the Engineer. The contract price per cubic yards of approved PA Colonial Field Stones shall be as indicated on the BID SCHEDULE OF PRICES Item

No. BMP 7.204. The bid prices shall be a unit price per cubic yards of PA Colonial Field Stones furnished.

No separate payment shall be made for PA Colonial Field Stones furnished and installed as facing on Concrete Structures. All costs shall be included in the unit cost of the Concrete Structures item, specification section 7.129.

<u>DIVISION VII - DETAILED SPECIFICATIONS –</u> CONTRACT SE-803

7.205

MASONRY FIELD STONE

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November 2015

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.

Section Number	<u>Title</u>
7.301	Debris Removal and Disposal
7.302	Clearing, Grubbing and Removals
7.303	Temporary Wood Tree Guards
7.304	Excavation
7.305	Crushed Stone
7.306	Tree Removal and Disposal
7.307A	Grading
7.308	Fill On-Site
7.310	Plant and Sod Salvage
7.313	Removal of Pond Sediments
* * * *	

<u>DIVISION VII - DETAILED SPECIFICATIONS –</u> CONTRACT SE-803

7.301 <u>DEBRIS REMOVAL AND DISPOSAL</u>

A. <u>Description of Work</u>

Under this item, the Contractor shall remove all debris and objectionable material in the work areas. Debris such as household, yard wastes and construction fill, fencing, abandoned structures, stones, wood as well as construction debris and any other objectionable debris shall be removed from the specific areas within the limits of the Contract, in accordance with the plans and specifications as directed by the Engineer. Removal of fallen trees which are resting on the ground shall be included in this item. The removal and disposal off-site of the following items shall be included in this Item: abandoned vehicles, large appliances, tires, auto engines, other auto debris, scrap pieces of metal, plastic, wood, asphalt and concrete rubble, other dumped fill, household waste and yard waste. This work is to be done before installation of guide rail and/or landscaping activities and other pertinent work of this Contract.

Stones deemed suitable for reuse shall be stockpiled on-site at a location determined by the Engineer or DEP Representative. Stones deemed not useful for contract purposes shall be removed by the Contractor from the site.

The Contractor shall carefully protect all trees, shrubs and other growth to remain, and shall be liable for any and all damages to property caused by Debris Removal operations. All trees, plants, and constructed features damaged during Debris Removal shall be replaced or restored to their original condition to the satisfaction of the Engineer.

This item shall apply only to those areas not covered by the item, Clearing, Grubbing and Removals. All debris removal in areas covered by Clearing, Grubbing and Removals shall be paid for under the unit price bid for Clearing, Grubbing and Removals.

B. <u>Construction Methods and General Removal Protocol</u>

All removal of debris from wooded areas, marshes, ponds and stream beds shall be performed by hand, except those areas that can be reached by machines located on paved roads or hard-packed open surfaces. Debris shall be removed to the nearest street edge for removal by the Contractor.

In sensitive natural areas, the removal of debris may cause more damage to the landscape than the benefits derived from the clean-up. Therefore, for debris that is inaccessible from a hard surface, the Contractor shall consult with the Engineer to decide if it shall be removed. Engineer will inform the

<u>DIVISION VII - DETAILED SPECIFICATIONS –</u> CONTRACT SE-803

Contractor of any debris items not to be removed due to inaccessibility and anticipated damage to soils and vegetation.

Every effort to protect overhanging branches from damage by machines shall be taken. No plant material shall be removed expect as ordered by the Engineer.

- 1. Where accessible from paved road or existing packed dirt road, use front-end loader and/or backhoe to remove items to nearest street. Heavy machinery must remain on paved/hardened surfaces.
- With the consent of Engineer, remove debris from wooded, field, or marsh areas by hand. Use existing trails where possible. For marsh areas, choose an entry point that minimizes the impact on vegetation. Blow torches, hand tools, and wheel barrows can be used to disassemble and remove large items. In order to minimize leakage from vehicles, separately remove and dispose of fluid-containing car parts.
- 3. With the consent of Engineer, remove items in open water by hand, unless of large enough size to warrant the use of a winch. In both cases, choose an entry point that will have the least impact on the shoreline, considering both the edge vegetation and bank stability. If using a winch, attach chains to the object and pull to shore. The vehicle housing the winch must remain on a paved or hardened surface. Once on shore, remove the debris according to the land conditions (i.e. by hand or with heavy equipment).

C. Measurement and Payment

The quantity to be measured for payment shall be as described herein. The quantity shall be for debris removal within the specified Work Areas.

Measurement shall be made in containers and/or vehicles, and the quantity to be paid for will be eight-tenths (8/10) of the yardage determined by such measurements.

The price bid shall be unit price per cubic yard for debris removal and disposal as indicated on the BID SCHEDULE OF PRICES Item No. BMP-7.301. The bid price shall constitute full compensation for all materials, labor, equipment, and work incidental thereto, necessary to complete this item in accordance with the plans and specifications to the satisfaction of the Engineer.

* * * * *

7.302 CLEARING, GRUBBING AND REMOVALS

A. <u>Description of Work</u>

Under this item, the Contractor shall clear, grub and remove all objectionable material such as trees (with calipers 6 inches or less), shrubby growth and brush, vines, stumps of all sizes, roots and weeds, within the limits of the BMP project site, in accordance with the plans and specifications as directed by the Engineer.

Trees with calipers 6 inches or less shall be removed under this item. Trees with calipers over 6 inches shall be removed under the Tree Removal item.

No trees or shrubs shall be removed except as ordered by the Engineer. All cleared and grubbed material shall be removed from the sites of the Contract and properly disposed of by the Contractor. No additional payment will be made for this, but the cost thereof shall be deemed included in the price bid for this item.

Every effort to protect overhanging branches from damage by machines shall be taken.

The Contractor shall carefully protect all trees, shrubs, and other growth which are to remain, and shall be liable for any and all damages to property caused by clearing and grubbing operations. All trees, plants and other property to remain which are damaged shall be replaced or restored to their original condition to the satisfaction of the Engineer, at no additional cost to the City.

The Contractor shall not remove stones from the site unless otherwise directed by the Engineer. Where stones are found to be in locations conflicting with areas to receive work, stones shall be relocated and stockpiled to adjacent on-site areas. The contractor shall retain and stockpile boulders on site for use in BMP construction as directed by Engineer.

B. . . Construction Methods and General Removal Protocol

Unless otherwise directed, the Contractor shall clear, grub and remove only objectionable surface and subsurface material heretofore described to a depth of six (6) inches below the ground surface as directed by the Engineer. If such areas are in fill greater than six (6) inches, trees and shrubs may be cut flush with the ground surface.

C. Measurement and Payment

The quantity to be measured for payment under this section shall be the total number of square feet successfully cleared and grubbed and all objectionable material removed in accordance with the plans and specifications and directions of the Engineer. The quantity shall be for clearing, grubbing and removal of all objectionable material within the project work limits.

For supplying all labor, materials and equipment necessary for clearing, grubbing and removals, the Contractor shall receive a unit price bid.

The Contract price per square foot for Clearing, Grubbing and Removals shall be as indicated on the BID SCHEDULE OF PRICES Item No. BMP-7.302. 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.

7.303 <u>TEMPORARY WOODEN TREE GUARDS</u>

A. <u>Description of Work</u>

Under this Section, before the commencement of any contract site work, the Contractor shall furnish and erect temporary wooden tree guards around existing trees to be safeguarded from construction activities in accordance with the plans, specifications and directions of the Engineer. For Temporary Wooden Tree Guard detail, refer to Contract Drawings. In order to avoid surface and subsurface root damage and soil compaction, the Contractor shall not be permitted to stockpile materials of any nature within the drip lines of trees to remain. Tree protection shall include securely tying up branches to prevent mechanical injury if deemed necessary by the Engineer. All equipment used on site shall be appropriate to the scale of the project. "Appropriate-sized" equipment shall be described as only equipment which can operate effectively on site without causing damage to existing vegetation.

B. Materials

Lumber to be used for temporary wooden tree guards shall be unpainted Yellow Pine, Douglas Fir or Spruce. All nails shall be hot-dipped galvanized steel.

C. Method

Unless otherwise directed, the Contractor shall install the temporary tree guards as shown on the drawings without causing damage to the existing trees to be protected. If any temporary wooden tree guards are destroyed or sustain damage during the course of the work, they shall be immediately repaired, or replaced by a new temporary wooden tree guard at no additional expense to the City.

Temporary wooden tree guards shall remain in place until all work which might cause damage or defacement to protected trees has been completed. Upon the completion of work to the satisfaction of the Engineer, the Contractor shall remove and dispose of all temporary tree guards from existing trees. All work shall be done in a careful, neat, and workmanlike manner.

If any trees are removed from a work site in violation of the plans and specifications (specifically the tree removal authorization issued by the City Planning Commission under the Special South Richmond Development District regulations of the Zoning Resolution of the City of New York), the Contractor shall be held responsible. Such trees shall be replaced without any extra expense to the City.

D. <u>No Separate Payment</u>

The cost for all labor, materials and equipment required for the temporary wooden guards shall be deemed included in the price bid under DETAILED SPECIFICATION 7.302 FOR CLEARING, GRUBBING AND REMOVALS. No separate payment shall be made for temporary wooden tree guards.

7.304 <u>EXCAVATION</u>

A. <u>Description of Work</u>

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.

B. General Requirements

- 1. <u>General Specifications</u> Except as modified and supplemented hereinafter in the Detailed Specifications, work performed under this Section shall conform to the NYCDEP Standard Sewer and Water Main 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 Standard Sewer and Water Main Specifications.

C. <u>Excavation</u>

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 Standard Sewer and Water Main Specifications, 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 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 supports, bracing, and sheet piling required performing the excavation to the levels and surfaces indicated.

2. <u>Excavated Materials</u> - The Contractor shall dispose offsite all excess and unsuitable materials. Boulders and stones deemed suitable for reuse shall be stockpiled on-site at a location determined by the Engineer or DEP Representative.

- 3. <u>Hazardous and Non-Hazardous Waste</u> Prior to starting the work, the contractor shall perform soil sampling as detailed in Section 7.317-Soil Sampling and Disposal. Sampling and subsequent removal of contaminated soils shall be paid for under that item.
- 4. <u>Care of Water</u> 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.
- 5. Stockpiling Topsoil that has been excavated and approved for use on-site is to be stockpiled separate from subsoil. Topsoil shall be excavated to a depth of 18" or as directed by the Engineer. Location of stockpiling shall be approved by the site Engineer. If the Engineer deems necessary, subsoils shall be separated and stockpiled according to soil horizons.

D. <u>Measurement and Payment</u>

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 offsite shall be indicated on the BID SCHEDULE OF PRICES Items No. BMP-7.304A. 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.

All costs for excavation performed in conjunction with the construction and installation of concrete structures will be included under the unit bid price for Concrete Structures Section 7.129.

7.305 CRUSHED STONE

A. <u>Description of Work</u>

The Contractor shall provide and install Crushed Stone bedding as indicated on the Contract Drawings and as specified herein.

B. <u>Materials</u>

Crushed stone used shall conform to the following gradation and shall be compacted to 98 percent density as determined by ASTM D698.

Sieve Size	Percentage of Dry Weight Passing Designated Sieve Size
1"	100
1/2"	90-100
1/4"	0-15

C. <u>Construction Methods</u>

Crushed stone shall be installed as per the Contract plans and to the satisfaction of the Engineer.

D. <u>Measurement and Payment</u>

The quantity to be measured for payment under this Section shall be the total number of cubic yards of approved crushed stone as measured in vehicles and containers.

The contract price per cubic yard of crushed stone, shall be as indicated on the BID SCHEDULE OF PRICES Items No. BMP-7.305. 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.

No separate payment shall be made for crushed stone used as bedding for Concrete Structures. All costs shall be included in the unit cost of the Concrete Structures item, specification section 7.129.

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<u>DIVISION VII - DETAILED SPECIFICATIONS –</u> CONTRACT SE-803

7.306 TREE REMOVAL AND DISPOSAL

A. <u>Description of Work</u>

Under this item, the Contractor shall cut and remove within the BMP Project limits and associate Bluebelt work areas, all trees over six (6) inches in caliper, where shown on the plans or as directed by the Engineer. Trees removed as a result of sewer construction and road work outside the limit of work described in this Addendum are not included in this item and are included elsewhere in these Contract Documents.

Trees with calipers six (6) inches or less shall be removed under the item Clearing, Grubbing and Removals.

The Contractor shall carefully protect against damage all existing trees, plants and other features to remain. He/she shall be liable for any damage to such trees, plants, structural features and other property caused by tree removal operations, and all damaged trees, plants, structural features and other property shall be replaced or restored to their original condition to the satisfaction of the Engineer.

The Contractor shall cut and remove all trees designated for removal within the limits of the Contract or as directed by the Engineer. The stumps and roots of these trees shall be removed to a depth of six (6) inches below the ground surface in grass and planted areas, and such other areas as might be designated. In areas of fill greater than six (6) inches, such trees shall be cut flush with the existing ground surface.

In areas of major construction, the stumps and roots of all trees designated for removal shall be grubbed and excavated to a depth of three (3) feet below the ground surface except in areas of fill greater than three (3) feet, where such trees may be cut flush with the ground surface.

Cutting of trees shall be done by competent workers only and in a professional manner, under the supervision of a certified arborist. All trees shall be "topped" and "limbed" previous to felling unless otherwise directed by the Engineer. For increased wildlife value, the Engineer may direct the Contractor to leave various topped and limbed tree trunks lying on the ground surface. These modifications shall be included in the unit price for tree removal. The Engineer may direct the Contractor to stockpile excavated root wads as well as topped and limbed tree trunks at a location approved by the Engineer for utilization under other items within this Contract. All branches, limbs, trunks, stumps, roots and other debris deemed not acceptable for reuse shall be removed from the site or otherwise disposed of to the satisfaction of the Engineer.

No trees are to be removed except as ordered by the Engineer. All trees shall be calipered at four and one-half feet above existing grade prior to removal (diameter at breast height). This item shall include the removal of snag trees which are obstructing flow in stream channels because these trees have collapsed due to undermined stream banks, as directed by the Engineer. Unless directed otherwise by the Engineer, snag trees shall be flush cut where the Engineer determines that the root mass should remain to help stabilize the streambank.

B. <u>Measurement and Payment</u>

The quantity of tree removal to be paid for under this section shall be the number of trees of each size group, removed and disposed of in accordance with the plans and specifications and directions of the Engineer.

A tree having a single root system and more than one trunk at a height calipered at four and one-half feet above existing grade shall be considered a multiple trunk tree. The caliper of a multiple-trunk tree, to be measured for payment, shall be the square root of the summation of the squares of the calipers of the several trunks, except that trunks of less than three (3") inch caliper will not be considered or included.

The Contract price per unit for tree removal shall be as indicated on the BID SCHEDULE OF PRICES Item Nos. BMP-7.306-A through BMP-7.306-D. The prices bid shall be unit prices per tree of each size group and shall include the cost of all labor, materials and equipment necessary for removing and disposing of trees, and all other incidentals necessary or required to complete the work in accordance with the plans and specifications to the satisfaction of the Engineer. This payment for tree removal shall include the costs for all stump removal and disposal. No payment shall be made under this section for removing stumps that existed on the site prior to tree removal operations. The removal of stumps that are on the site before any trees are removed shall be deemed included in the price bid under DETAILED SPECIFICATIONS FOR CLEARING, GRUBBING AND REMOVALS.

7.307A <u>GRADING</u>

A. <u>Description of Work</u>

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. <u>General Requirements</u>

- 1. <u>General Specifications</u> Except as modified and supplemented hereinafter in the Detailed Specifications, work performed under this Section shall conform to the NYCDEP Standard Sewer and Water Main Specifications.
- 2. <u>Shop Drawings</u> 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 Standard Sewer and Water Main 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 Standard Sewer and Water Main Specifications.

D. <u>Compaction</u>

- 1. BMP Areas Compaction shall not be done in BMP and landscaped areas.
- 2. Other Areas 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.
- 3. <u>Field Control</u> 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. <u>Measurement and Payment</u>

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.

7.308 FILL ON-SITE

A. <u>Description of Work</u>

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 BMP 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. <u>Definition</u>

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

The quantity to be measured for payment under this Section shall be the total number of cubic yards of approved fill, measured in containers or vehicles, provided and placed as indicated on the Contract Drawings and as directed by the Engineer.

The contract price per cubic yard of approved fill material placed shall be as indicated on the BID SCHEDULE OF PRICES Item No. BMP-7.308. 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.

No separate payment shall be made for fill used to backfill structures. All costs shall be included in the unit cost of the Concrete Structures item, specification section 7.129.

7.309 <u>IN-STREAM SEDIMENT REMOVAL</u>

NO TEXT ON THIS PAGE

7.310 PLANT AND SOD SALVAGE

A. Work Included

The Contractor shall furnish all labor, materials, equipment and services necessary for Plant and Sod Salvage as indicated on the Contract Drawings and as specified herein. Plant salvage involves many ecological, horticultural and site-specific issues and shall be designed and supervised by the Restoration Specialist.

B. Manual Plant Salvage

Activities under this item shall include all work necessary and incidental for the removal, storage and transplanting of existing native small trees, shrubs and herbaceous plant material. Work shall be done under the guidance of the Restoration Specialist with experience in transplanting and nurserymen techniques. Plant salvage activities shall precede the use of heavy trucks, excavating or grading equipment in salvage areas, except equipment used for the salvage work itself.

Transplanting is only to occur when plants are dormant during the fall and winter and when soil is moist. Evergreen material shall be transplanted from April 1st to May 15th and from September 1st to October 15th. Deciduous material shall be transplanted from March 1st to May 1st and from October 15th to December 1st. Only trees and shrubs that lack insect or disease damage shall be transplanted. The majority of trees and shrubs salvaged shall not exceed five (5) feet in height as larger specimens have a higher mortality rate.

All plants shall be dug to retain as many fibrous roots as possible and the roots shall be contained securely in place. The Contractor shall use approved transplanting equipment. Temporary storage shall be in suitably sized containers or, where appropriate, as burlap wrapped balls. Root balls of trees and shrubs shall be wrapped with wet burlap to prevent soil from separating from roots and desiccation. Size and weight of root balls shall be in accordance with Table 3.5 "Size and Weight of Earth Ball Required to Transplant Wild Stock" in the latest edition of the New York State Standards and Specifications for Erosion and Sediment Control, published by the Empire State Chapter of the Soil and Water Conservation Society. After transplanting, all shrubs shall be pruned and watered in accordance with standard horticultural practices.

C. Plant Removal

The following specifications shall be used to properly remove plants. A straight edged spade shall be used to manually remove herbaceous plants

and small shrubs and trees. For plant material under three (3) feet tall, a spade shall be plunged straight down around the material to be removed at least eight (8) inches from stem. The cut around plant material taller than three (3) feet shall be a minimum of one (1) foot. The spade shall then be carefully worked under the roots. If a large root is encountered, it shall be cut cleanly with sharp pruning shears or loppers. Small plants shall be lifted out of ground, keeping root ball and associated soil intact and placed in temporary containers of appropriate size. The soil within the containers shall be covered with wet mulch, wood chips or leaves and kept moist.

Shrubs and trees larger than three (3) feet shall be removed in the following manner. Two people shall be used for removing such material. An appropriately sized piece of burlap shall be placed alongside the plant material to be removed. The spade head shall be placed under the root ball. While one person pries the plant up with the spade handle, the other shall grasp the plant at the base of the stem. Using the spade to support the root ball, the plant shall be lifted out of the hole and placed on the burlap. The corners of the burlap shall be pulled up around the root ball and natural twine (not nylon or plastic) shall be used to tie it around the root ball. The burlap and root ball shall be immediately watered. Roots shall not be allowed to become dry or be exposed to air.

D. <u>Storage</u>

Under ideal circumstances, salvaged material shall be transplanted immediately to the donor site. If storage is necessary and approved by the Restoration Specialist or DEP Representative, salvaged plants shall be stored temporarily at a designated storage location, properly heeled in and watered until such time that they are used for re-establishment. The temporary storage area shall be scraped to remove weeds and weed seeds before plants are stored and shall have the same soil type, exposure and hydrological regime as the donor site. The temporary storage area shall be completely fenced with plastic snow fence or welded wire fence. The top two (2) inches of the container as well as spaces between the containers shall be filled with wet mulch, wood chips or leaves. The salvaged plants shall be planted as soon as designated receptor sites are available during the dormant season.

A capillary bed shall be constructed for wetland plant storage at the discretion of the Restoration Specialist or DEP Representative. The frame of the capillary bed shall be one (1) foot deep and four (4) feet wide by ten (10) feet long. The frame shall be lined with heavy plastic (>3 mil) and filled with approved soil or mulch. Holes are to be punched in the plastic liner in each corner six (6) inches from the bottom of the frame. This will prevent the entire bed from filling with water. At least two (2) inches of water shall be maintained in the capillary bed at all times.

Plants shall be potted prior to placement within the capillary bed as this will reduce the number of times the roots will need to be disturbed. Potted plants are to be placed in the bed and surrounded and partially covered with soil or mulch. Plants shall not be stored for more than one (1) year.

E. Tree and Shrub Transplanting

Prior to transplanting, shrubs and trees should be tagged and their future locations selected and marked by the Restoration Specialist or DEP Representative. Plant material shall only be transplanted during the dormant season.

If plant material is to be stored prior to planting, the material shall be properly balled or containerized as per sound horticultural practices (American Association of Nurserymen Standards) and toed into the soil in an appropriate predetermined location. The storage site shall be approved by the Restoration Specialist or DEP Representative and have the same soil type, exposure and hydrology as the donor site. The temporary storage area is described in paragraph D.

Evergreen material shall be transplanted from April 1st to May 15th and from September 1st to October 15th. Deciduous material shall be transplanted from March 15th to May 15th and from October 15th to December 1st. Only trees and shrubs that lack insect or disease damage shall be transplanted. The majority of trees and shrubs salvaged shall not exceed six (6) feet in height as larger specimens have a higher mortality rate.

F. Whole Sod Salvage

Whole sod placement shall be done under the guidance of a Restoration Specialist with experience in sod salvage. The Contractor shall remove whole sods from all designated donor wetlands, including native moss mats, sedge and fern tussocks, woody hummocks, whole shrubs and small trees and associated herbaceous vegetation. The salvaged sod shall be transported and placed into the created wetland over previously-placed organic sediments or over mineral soils, depending on the depth of sod. Sods shall be cut, transported and placed such that the sods and plants remain substantially intact and plants and roots maintain their accustomed vertical and horizontal orientations. Whole sod cutting shall be capable of transporting trees up to two (2) inches in caliper and ten (10) feet in height.

Whole sod cutters shall be manufactured by Munro Ecological Services, or approved equal. The referenced manufacturer supplies hydraulically-operated attachments equipped for positive sod displacement.

Salvage and placement of whole sod and organic soils shall occur in tandem so that all salvage equipment can work on firm mineral soil and there is no unnecessary treading of organic soil, sods or plant material. Sods shall not be stored without the approval of the Restoration Specialist and requires the use of specialized storage equipment.

The work shall proceed as follows:

- 1. A rank of whole sod shall be cut and removed from the edge of the donor site. If the sod is of the proper thickness, it may be placed directly into the receptor site. The sod shall otherwise be set aside temporarily until the receiving subgrades are properly prepared.
- 2. If underlying organic soils are to be salvaged from donor sites, it should be excavated and transported to the receiving wetland in such a way as to prevent unnecessary treading by heavy equipment.
- 3. If both underlying organic (A horizon) soils and mineral (B horizon) soils are to be salvaged from donor sites, they shall be excavated and stockpiled separately, and transported and placed into the receptor site in separate lifts, as they existed in-situ. The soil horizons shall be tamped, not compacted in place. Soils shall be excavated and transported to the receptor site in such a way as to prevent unnecessary treading by heavy equipment.
- 4. Salvaged whole sods shall be carefully placed on top of those sediments or elsewhere on mineral soils.
- 5. Another rank of whole sods shall be cut and removed from the donor site.
- 6. All organic sediments underlying the removed rank of sods shall be excavated, transported, distributed and then salvaged. Whole sods shall be placed on top.
- 7. This procedure shall be repeated until all usable whole sods have been salvaged to the satisfaction of the Restoration Specialist. Sods shall be placed deliberately spaced apart as well as contiguously to imitate the irregularity of other existing wetlands in the area. The Restoration Specialist shall inspect local "model" wetlands prior to placement of whole sods to better understand the desired pattern of layout.
- 8. Sod placement shall be true to elevation as shown on the plans. Target elevations shall be corrected by the Contractor if actual site

conditions appear to differ from projected site conditions during and after excavation.

G. Plant Salvage at BMPs

Within this contract, the BMPs' periphery and adjacent areas will be recontoured and restored. As such, the BMP edge and adjacent areas shall serve as the donor site for both soils and plant salvage.

Prior to salvaging plants and soil, the receptor site shall be fully prepared. The plant material shall be excavated including the soil to a depth of 18". Extreme care shall be taken to avoid damaging plants or crumbling soil below. If the receptor site is deeper than 18", additional soil shall be excavated from the donor site to be placed below. This material shall be stockpiled on tarps and placed separately prior to the placing of the top 18" layer. The plant material and topsoil shall be stored on tarps, kept moist and protected until it can be placed. Work shall be scheduled so that plant material can be transplanted within thirty six (36) hours of being excavated. Method for transplanting material shall be selected to minimize compaction of soil. Soil shall be tamped, not compacted in place. Salvaged plant material shall be well-watered in place.

The material to be salvaged shall include the plant species listed below, but shall not be limited to these plants, as determined by the Restoration Specialist, or DEP Representative. In the areas to be excavated, locate and transport the following species to the cleared areas (plants are listed in order of importance to salvage):

Woody Plants

Acer negundo	Box-Elder
Acer spp	Maple saplings
Quercus spp	Oak saplings
Salix nigra	Black Willow
Cornus amomum	Silky Dogwood 🔹
Rubus spp.	Raspberry
Sambucus canadensis	Elderberry
Viburnum dentatum	Arrowwood Viburnum

Perennials and Herbaceous Plants

eltandra virginicaArrow Arum	
Carex spp.	SedgesEupatorium spp.
Solidago spp	Goldenrod
Typha spp.	Cat-Tail
Symplocarpus foetidus	Skunk-Cabbage
Parthenocissus quinquefolia	Virginia Creeper

H. Measurement and Payment

The quantity to be measured for payment under this section shall be the total number of crewday (shifts) necessary for completion of the plant salvage operation. A crewday (shift) is defined as one period from 8AM – 4PM, including lunch and breaks. The crew shall consist of two workers.

The contract price per unit for Plant Salvage shall be as indicated on the BID SCHEDULE OF PRICES Item No. BMP-7.310-A4. 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 Engineer.

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7.311 CONSTRUCTED WETLAND TREATMENT

NO TEXT ON THIS PAGE

7.312 <u>DEMOLITION AND SITE CLEARING</u>

NO TEXT ON THIS PAGE

7.313 <u>REMOVAL OF POND SEDIMENTS</u>

A. Work Included

1. <u>Description</u> - The Contractor shall furnish all labor, materials, tools, equipment and incidentals required for the removal and disposal of all materials encountered by excavating out the sediments from the Pond as shown on Contract Drawing and as specified herein.

The Contractor shall remove sediments in accordance with the special conditions outlined in the watershed level permit to be provided by NYSDEC. The Contractor shall take note and be held responsible for all work as described under Special Conditions in the Permit.

The material removed shall be handled in such a way that no downstream deposition of sediment occurs. Erosion control measures and practices are to be in place and in operation before and during any construction activity.

Sediment shall be removed with the supervision of the Restoration Specialist or DEP Representative, and shall be conducted in such a manner to cause the least damage to the pond and adjacent natural areas. Accumulated sediment such as organic and inorganic soils, leaf matter, branches, stones and cobbles, debris, and all other objectionable matter encountered, shall be removed from the specific areas within the limits of the Contract, as directed by the Engineer. Sediment removed shall be disposed of by the Contractor off-site in a manner in compliance with all applicable rules and regulations.

B. <u>Site Preparation</u>

The Contractor shall carefully protect all trees, shrubs, vegetation, and other growth to remain, and shall be liable for any and all damages to property caused by sediment removal operations. All tree and plant material damaged outside the work limits during sediment removal shall be replaced or restored to the satisfaction of the Engineer, and with the supervision of the Restoration Specialist or DEP Representative. Erosion control measures must be in place prior to work, according to the approved Soil and Sediment Control Plan.

C. Construction Methods and General Removal Protocol

1. <u>Dewatering</u>

The Contractor shall perform water diversion and dewatering activities to ensure that all sediment removal is performed under dry conditions. A diversion methodology such as sandbag dams shall be installed in the pond both upstream of the area requiring sediment removal, and the water diverted with a flume or with the use of an adequately sized pump, as per the Contract Drawings and/or direction by the Engineer. Water is to outlet into the channel downstream of the work area to prevent scouring of the streambed. Other methods such as sheeting or coffer dams shall be considered by the Engineer if proposed by the Contractor. The Contractor shall not proceed without the consent of the Engineer. Upon completion of sediment removal, all materials used for the diversion and dewatering operation shall be removed, and the area restored to its original condition.

2. Sediment Removal

Where possible, sediment is to be removed from the Pond by equipment positioned on an adjacent hard surface, such as a road or parking lot. If sediment is not accessible from a hard surface, the Contractor shall consult with the Engineer and DEP representative to decide the removal method which minimizes negative impacts to the pond and any adjacent natural areas.

In areas where removal cannot occur from a hard surface, an access road shall be used to gain entry to the area, the base of which shall consist of crushed stone or moveable wooden timber matts. Transportation access roads shall be as shown on the Contract Drawings. No asphalt or crushed concrete is to be used along the stream in natural areas. If the banks of the pond are not to be disturbed during sediment removal, then the access road shall be positioned such that no damage to the pond banks will occur. All materials used as the bed of the access road shall be removed immediately after the completion of sediment removal, and the area restored to its natural grade and condition. The roadbed shall be seeded with an appropriate native seed mix, and salt hay shall be applied at a rate of two (2) tons per acre (100-200 bales/acre).

3. <u>Equipment</u>

Equipment used to remove sediment shall be sized accordingly for the area where the work will be done at the discretion of the Engineer. That is, equipment that may cause unnecessary damages to the plant material, or natural areas shall not be used. A "clam shell" attached on a crane often is an appropriate device to remove sediments with the least adverse impacts.

A properly sized backhoe may be used with the approval of the Engineer. An extender arm on a backhoe may be useful. The Contractor whenever feasible shall employ low impact vehicles such as small-sized tractor hoes like a Bobcat. Some hand digging may be necessary with wheel barrows or motorized wheel barrows utilized. Sediments shall be removed and disposed of in accordance with all applicable state and federal regulations.

4. Stabilization and Restoration

As shown on the Contract Drawings, all pond banks adjacent to sediment removal areas shall be restored and graded so as to provide stable, gently sloped banks which meet the existing grade along the pond. All exposed banks shall be stabilized, seeded, and revegetated as per the Contract Drawings and specifications and/or as directed by the Engineer, and with the supervision of the Restoration Specialist or DEP Representative. Seeding and planting shall be done during the dormant season with appropriate native species and with the supervision of the Restoration Specialist.

D. <u>Operational Procedures</u>

1. Execution

- a. The disposal of the excavated sediments shall be in accordance with the requirements of the watershed level permit to be provided by NYSDEC.
- b. Before disposing of the sediments, the Contractor shall perform a RCRA (Resource Conservation and Recovery Act) Characterization to include Toxicity Characteristic Leaching Procedure (TCLP), Ignitability, Corrosivity, Reactivity and Total PCBs analyses for a minimum of six (6) composite samples, distributed evenly throughout the course of the sediment removal of material to be disposed, to be submitted to the Engineer. The purpose of testing is to determine whether or not the sediment is considered a non-hazardous or hazardous waste as defined in the Code of Federal Regulations Title 40, Part 261. Analytical testing shall be done at a New York State Department of Health certified laboratory.

Should the test results show the material as hazardous, a second set of tests conducted as described above shall be done on a second set of samples at the laboratory chosen by

the Resident Engineer, at the Contractor's expense, and at no expense to the City.

- c. The quality of the excavated sediments is expected to be non-hazardous as defined in the code of Federal Regulations Title 40, Part 261. The South Richmond Watershed Drainage Plans EIS Chapter 6.11 is the basis for this expectation.
- d. All liquid decanted and dewatered from the excavated material shall be disposed of in a manner consistent with all applicable rules and regulations. If any water is to be discharged into [Creek Name], then prior to discharge it must be treated in such a way that there is no visible contrast between it and dry weather flows in the Creek.

Prior to discharge in the Creek, the Contractor shall store the decanted/dewatered wastewater in a storage container and perform the laboratory analysis on a grab sample. The sample shall be taken from the top, middle, and bottom layers of each storage container utilized, composited and thoroughly mixed prior to filling the analytical sample bottles. The laboratory analysis to be performed of the decanted/dewatered wastewater and corresponding sewer use limits for those parameters are as follows:

Parameter ²	Analytical Method ³	NYC Sewer Use Limit(mg/l)		
**	150.1	5 0 11 0		
pН	150.1	5.0-11.0		
Total Petroleum				
Hydrocarbons	418.1	<50		
Cadmium	200.7	2.0		
Chromium	200.7	5.0		
Copper	200.7	5.0		
Cyanide	335.3	0.2		
Lead	200.7	2.0		
Mercury	245.1	0.05		
Nickel	200.7	3.0		
Zinc	200.7	5.0		

2. All laboratory analysis shall be done at a New York State Department of Health certified laboratory such as Veritech

² Parameters obtained from The Rules of The City of New York, Title 15, Chapter 19.

³ Analytical method obtained from references cited in 40 CFR, Parts #136 and #261.

Laboratory, Fairfield, NJ, NYSDOH Certification No. 11408; or approved equal.

- 3. <u>Disposal</u> All materials resulting from the excavation will become the property of the Contractor. The materials shall be removed from the site to the Contractor's own place of disposal at the Contractor's expense in conformance with existing applicable laws and regulations.
- 4. <u>Inspection</u> The City will keep a record of the work done and will require that gages, ranges, and other markers be left in proper order; however, the presence of an inspector shall not relieve the Contractor or his authorized agent of any responsibility for the proper execution of the work.
- 5. Extent of Sediment Removal Sediment removal shall include the removal and disposal of all materials encountered, as specified herein. Except as otherwise specified, no payment will be made for sediments removal outside the limits of the payline. Excessive over the limits may have to be filled back in if directed by the Engineer.

The actual bottom shall not be higher than the elevation indicated on Contract Drawing. Care shall be taken by the Contractor to avoid over sediments removal. No area shall be over-dug-in excess of 2 ft. except where digging is required by the Engineer to drop an obstruction below the limit line.

Procedures and techniques used by the Contractor to remove sediments to the limits shown on Contract Drawings shall not undermine the existing Inlet/Outlet structures.

The side slopes at the limits of excavated areas shall not be cut steeper than the slopes shown on Contract Drawings. The Contractor shall be responsible for maintaining stable slopes at all times. The location of the top of slopes shall conform to the tolerance stated above.

6. Side Slopes - Sediments removal on side slopes shall follow as closely as practicable the lines indicated or specified. No allowance will be made for overdepth digging on side slopes, except as provided hereinafter. The amount of material excavated from side slopes will be computed from cross-sectional area which projects within the indicated slope. When the cross-sectional area of unexcavated material which projects within the indicated slope is greater than that immediately below which has been removed from outside the indicated slope, the City may either order the excess

material to be removed or may accept the work and include for payment the material removed from outside the indicated slope.

- 7. Overflow from Trucks All solid materials and water discharged into a tank or truck shall be kept inside the tanks, or trucks during filling and transportation until the truck reaches the disposal site. No spilling or overflow of water from the tanks or trucks will be allowed.
- 8. <u>Disposal of Excavated Materials</u> Disposal of excavated materials shall be in accordance with the requirements of the permits issued by the Department of the Army New York District Corps of Engineers and the New York State Department of Environmental Conservation.
- Method of Measurement The material removed will be measured 9. by the cubic yard of sediment in place, obtained based on soundings and instrument survey taken as described herein before and after excavation of each acceptance area. The Contract Drawing is believed to represent existing conditions, which the Contractor shall verify prior to commencement of work. Any area surveyed or sounded more than 30 days prior to beginning of sediments removal in the respective area will be re-surveyed or re-sounded when requested by the Engineer. All survey and sounding measurements shall be made to an accuracy of one-tenth of a foot. All surveying and sounding cost are to be the Contractor's responsibility. Conventional survey methods to measure existing exposed surfaces above tide will be permitted. The method of taking soundings in the submerged area shall be compatible with the measurement accuracy specified herein and shall be submitted to the Engineer for approval prior to beginning sounding work.
- 10. Volume Calculations The Contractor shall make volume calculations based on the end-area method. Cross sections for end-area method shall be taken at not more than 15 feet intervals and at lesser intervals as required for the variations in contours. Cross sections taken for any one volume shall be parallel unless otherwise agreed to and approved by the Engineer. The Contractor may request that intervals between cross sections taken for calculations be adjusted for variations in contour with final approval by the Engineer.

The volume in cubic yards of material removed and disposed of in accordance with this specification shall be determined from the differences between the elevations of the pond bottom immediately

prior to digging and the required excavation depths within the excavation bottom limits.

E. <u>Measurement and Payment</u>

The quantity to be measured for payment under this section shall be the total cubic yards of sediment and all other objectionable matter removed from the pond and disposed of off-site. Method of measurement is described in Section D, items 9 and 10.

The contract price per cubic yard of sediment and all other objectionable matter removed and disposed of off-site shall be indicated on the BID SCHEDULES OF PRICES Item No. BMP-7.304. The bid price shall constitute full compensation for all labor, materials, equipment and work incidental there to, necessary to complete the work in accordance with the plans and specifications to the satisfaction of the Engineer.

All costs for removal of pond sediments performed in conjunction with the construction and installation of concrete structures will be included under the unit bid price for Concrete Structures Section 7.129.

The material is not expected to be hazardous. If the testing specified herein should find the material to be hazardous, payment for the disposal of hazardous material shall be paid out of an allowance of \$200,000. The testing specified herein is to be paid out of the allowance. This allowance shall be shown on the BID SCHEDULE OF PRICES Item No. BMP-7.313. Payment for the disposal shall be determined at the time hazardous material disposal becomes necessary. The balance of the monies not expended shall be returned to the city as a credit.

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.

Section Number	<u>Title</u>	
7.401	Landscaping for Terrestrial Zone and Wetland Zone	
7.403	Top Soil for Restored Area	
7.405	Vector, Pest and Wildlife Control	
7.406	Wood Chips	
7.407	Jute Mesh	
7.408B	Herbicide Application	
7.413	Goose Exclusion Fence	
7.414	BMP As-Built Plans	
7.415	Vine and Invasive Plant Removal	
7.419	Tree and Root Pruning	

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.
- f. A Comparative Flora of Staten Island, 1879 1981, Buegler and Parisio, Staten Island Institute of Arts & Sciences.

C. Quality Assurance

1. Source Quality Control:

a. 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 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.

- 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 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 <u>A Checklist of New York State Plants</u> or <u>A Comparative Flora of Staten Island</u>, may be accepted on a caseby-case basis.

- The Contractor shall provide trees and plants of quantity, size, 3. genus, species and variety shown and scheduled in the Contract complying with landscape work and for 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 Staten Island stock or within 250-mile radius of Staten Island.
- 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 topsoil analyses shall conform to those of Cornell Cooperative Extension of Nassau County. Associated costs and additional guidelines for topsoil analyses shall be as specified under DETAILED SPECIFICATIONS FOR TOPSOIL FOR RESTORED AREA.

6. Inspection:

- a. The Engineer or DEP representative shall inspect trees and shrubs at place of growth before planting, for compliance with requirements for genus, species, variety, size and quality. Contractor shall be responsible for all inspection costs beyond a 50-mile radius from New York City.
- b. 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.

- c. The Engineer retains the right to further inspect trees for size and condition of balls and root systems, insects, injuries and latent defects, and to reject unsatisfactory or defective material at any time during progress of work. The Contractor shall remove rejected trees 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. <u>Submittals</u>

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.

- 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, and the Botanic Gardens.
- 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, experienced in tree pruning and removal.
- 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.
 - 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.
- 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 or DEP Representative 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 plant, 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 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 three year guarantee period.

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. <u>Product Delivery, Storage and Handling</u>

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. Trees and Plants. The Contractor shall provide trees and 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 trees or plants in such a manner as to damage bark, break branches or destroy natural shape. Provide protective covering during delivery, and insure that all balled and burlapped stock, container stock, tube stock, and/or bare root 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 trees and plants after preparations for planting have been completed and plant immediately. If planting is delayed more than 6 hours after delivery, set trees and 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. Fertilizer delivered to the job site shall be in original, unopened containers bearing the manufacturer's chemical analysis and essential information. Fertilizer containers shall be protected from exposure to precipitation and direct sunlight.
- h. 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.
- All seed shall be interagency certified under the auspices
 of a State Seed Improvement Cooperative and shall bear
 theirs 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.
- 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. <u>Job Conditions</u>

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 15th to May 15th and from October 15th to December 1st. Container-grown herbaceous material shall be planted and transplanted from March 15th to May 15th and from August 15th to September 30th (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 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 Specification 7.419 Tree and Root Pruning.
 - 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 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 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 of Schedule A.
 - b. Operations. The Contractor shall, for a period of three (3) years, cultivate, weed, mulch, prune, and water all trees, shrubs, herbaceous plants, vines 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.
 - 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 7.401F. 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.

H. Materials

1. Topsoil

- a. Topsoil from site stripping shall be used if the material meets specifications listed in 7.403. A soil test(s) shall be made at Contractor's expense to determine if the specifications for all the tests listed in (7.403) have been met. A soil test shall be required and shall serve as a representative analysis for every 200 cubic yards of material utilized.
- b. Additional topsoil shall be furnished from sources off the Contract site when existing topsoil is not sufficient. Material shall consist of natural loam topsoil, free from subsoil, obtained from an area which has never been stripped. Topsoil shall comply with the requirements of Specification section 7.403.

2. <u>Fertilizer</u>

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.

3. Mycorrhizal Inoculants

- a. Mycorrhizal inoculants shall be used in all tree and shrub planting operations in all areas receiving topsoil from off-site sources, or stripped topsoil stockpiled in excess of one year.
- b. The inoculants for trees and shrubs shall be "Mycor Tree Saver" by Plant Health Care, Inc.; Rhizanova Tree Transplant, by Becker Underwood, Inc.; "DIEHARD" by Horticultural Alliance; or approved equal. The inoculants shall contain fresh, live and viable spores of both endo (VAM) and ecto (Pt) mycorrhizal fungi. All inoculants shall be delivered in sealed containers or packages of the Vendor, listing the weight, content, date of packaging and name of Vendor.

- c. The inoculants for herbaceous plants and grasses shall be Mycor Plant Saver as manufactured by Plant Health Care, Inc.; "DIEHARD" by Horticultural Alliance' "mycorrhiza ROOTS Soluble' by Lebanon Turf; or approved equal. The inoculants shall contain fresh, live and viable spores of both endo (VAM) and ecto (Pt) mycorrhizal fungi. All inoculants shall be delivered in sealed containers or packages of the Bendor, listing the weight, content, date of packaging and name of Vendor.
- d. The inoculants shall be stored in unopened containers in a cool, dry location. All containers must be inspected by the Engineer prior to opening. Any inoculants dated eighteen (18) months or more prior to the date of intended use shall not be used. Any inoculant that has been in a wet condition shall not be used. Any inoculant rejected by the Engineer shall be removed from the site.
- e. For trees and shrubs, the Contractor shall incorporate the inoculant into the top eight inches (8") of the topsoil mix used in the planting operations described in Section 7.403 and as per the manufacturer's instructions. The amount of inoculant used at each plant shall be based on the plant's size see manufacturer's instructions. For herbaceous plants, the Contractor shall place the inoculant into each planting hole as per manufacturer's application rate and project plans.
- f. The Contractor shall not apply fungicide to any areas receiving inoculant for a minimum of two weeks following the planting operations.

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 and all balled and burlapped 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 possess a normal balance between height and spread will not be accepted. No damaged or diseased plants will be accepted.
- e. All deciduous trees shall be well-branched and furnished to the ground. There shall be no abrasion of the bark, no fresh cuts of limbs over 1-1/4" which have not completely calloused over. A heavy fibrous root system is essential. Refer to Plant Schedules on the Contract Drawings for further specifications.
- f. All evergreen trees shall be heavy, symmetrical plants well-furnished to the ground. They may be multiple-stemmed. All evergreen trees must be free from winter injury. A heavy fibrous root system is essential.
- g. Trees 4" caliper or less shall be calipered six inches above ground. Trees greater than 4" caliper shall be calipered one foot above ground.

h. All trees to be tagged on north side of tree for proper orientation when planting.

5. Mulch

Mulch shall be organic mulch free from deleterious materials and suitable for top dressing of trees, shrubs or plants and shall be shredded hardwood bark, decayed hardwood chips, leaf mold, pine straw, partially decayed leaves, cottonseed hulls, peanut hulls or other organic products. Mulch must be aged at least one year, should not contain elm wood chips, or be from diseased trees. No shredded bark pieces shall be greater than 3" in length and 13" in width. Mulch for seeded areas shall be clean, seed-free salt hay. Mulch shall be free of roots or other parts of invasive exotic plants that may take root in restored area.

6. <u>Compost</u>

Compost having the general properties of humus shall contain organic matter with no admixture of refuse or material toxic to plant growth and shall be completely decomposed and free from deleterious materials such as a glass, paper, plastics, metals, etc. Compost shall be from Long Island Compost, Islip, NY "Earthlife", manufactured by Casella Organics, or "Nature's Choice Compost" by Nature's Choice Corp., Union, NJ, or approved equal.

7. <u>Materials for Anchoring, Staking, Guying, Wrapping</u>

a. Stakes. The Contractor shall provide straight, sound cedar stakes, 2 x 2-1/2 inch diameter (50 x 50 mm or 63 mm diameter) in size.

In natural areas, where wind-disturbance is unlikely Engineer will determine if stakes are necessary. If it is determined that staking is required, a modified staking system shall be used. The modified stakes shall be shorter than conventional stakes, and shall protrude 18 inches above the finished grade. Stakes shall be anchored and fastened in the same manner as in conventional staking.

b. Tree guys. The Contractor shall provide guys of 3/4" woven polypropylene fabric, such as "Arbor-Tie" or approved equal. Each end shall be coiled tightly, with enough slack left in guy so as to allow slight movement of tree trunk. Guying shall be performed under the direct supervision of the Engineer.

c. Wrapping Material. The Contractor shall use standard nursery tree wrapping paper, or burlap manufactured for wrapping tree trunks. Burlap shall be made of jute. Twine for tying shall be lightly tarred sisal (lath) yarn.

8. Topsoil Mix

The topsoil mix shall be a mixture of one part compost, and two parts of topsoil. Topsoil mixed on-site must be tested by Contractor and have pH of 5.5 - 6.5. Ericaceous plantings may require a lower pH. Where site conditions such as heavy clay soils exist, the Engineer shall determine a mix incorporating a percentage of the existing soils.

9. <u>Temporary Seed Mixtures</u>

Soil stockpiles and cleared and graded areas shall receive oat seed (avena sativa) for temporary stabilization as required during the spring and summer months. Areas requiring temporary stabilization after August shall be seeded with certified "Aroostook" winter rye. 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.

10. Permanent Seed Mixture

Seed mixture shall be as specified in the Contract Drawings unless otherwise directed by the Engineer. The FACW Wetland Meadow Mix shall be manufactured by Ernst Seed Co., , or approved equal.

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.

Seed Mixtures – Permanent seeding shall be the Staten Island Native Wildflower Meadow Seed Mix, or the FACW Wetland Meadow Mix, as shown on the following table:

Staten Island Native Wildflower Mix

Common Name-Wildflowers	Scientific Name	Percentage
Black Eyed Susan	Rudbeckia hirta	20
Switchgrass	Panicum virgatum	10
Virginia Wild Rye	Elymus virginicus	10
Indiangrass	Sorghastrum nutans	5
Thin Leaved Coneflower	Rudbeckia tribolia	5
Wild Blue Lupin	Lupinus perennis	4
Rough Stem Goldenrod	Solidago rugosa	4
Joe Pye Weed	Eupatorium fistulosum	4
Wingstem	Verbesina alternifolia	4
Wild Bergamont	Mondard fistulosa	4
Sneezeweed	Helenium autumnale	4
Heath Aster	Aster pilosus	4
New England Aster	Aster novae-angliae	4
Smooth Blue Aster	Aster laevis	4
Blue Vervain	Verbena hastata	4
Common Milkweed	Ascelpias syriaca	2
Butterfly Weed	Ascelpius tuberose	2
Eastern Columbine	Aquilegia canadensis	2
Showy Tick Trefoil	Desmondium canadense	2
Forest Sunflower	Helianthus decapetalus	2

Staten Island FACW Wet Meadow Seed Mix

Common Name - Wildflowers	Scientific Name	Percentage
Virginia Wild Rye	Elymus virginicus	20
Fox Sedge	Carex vulpinodea	15
Bottlebrush Grass	Elymus histrix	10
Deertongue	Panicum clandestimum	5
Pennsylvania Smartweed	Polygonom pensylvanicum	5
Riverbank Wild Rye	Elymus riparius	5
Switchgrass	Panicum virgatum	5
Black Eyed Susan	Rudbeckia hirta	5
Soft Rush	Juneus effusus	5
Common Milkweed	Asclepius syriaca	5
Pennsylvania Sedge	Carex pensylvanicum	2
Blue Vervain	Verbena hastata	2
White Snakeroot	Eupatorium rugosum	2
Spotted Joe Pye Weed	Eupatorium maculatum	2
Whorled tickseed	Coreopsis verticillata	2
White Wood Aster	Aster divaricatus	2
Heart Leafed Aster	Aster cordifolius	2
Path Rush	Juncus tenuis	2
Swamp Sunflower	Helianthus angustifolius	2
Showy Tick Trefoil	Desmodium canadense	2

11. Erosion Control Mat (Blanket)

The erosion control fabric utilized at BMPs and shown on the Contract Drawings shall conform to Detailed Specification 7.705 Erosion Control Mat.

I. <u>Execution</u>

<u>Installation/Application/Performance For Terrestrial and Wetland Buffer Zone Plants</u>

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 suitable local fill to (maximum) four (4) inches below

the finished surface, topsoiled, fine graded, 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.
- d. No topsoil mix is to be placed until the subgrade is approved by the Engineer.
- e. For planting beds, spread topsoil mix to minimum depth required to meet lines, grades and elevations shown on the Contract Drawings, after light rolling and natural settlement.
- f. The planting beds and pits shall be worked up well, and shall be free of other vegetation and large clods of soil.
- g. Apply fertilizer at rate specified in Contract Drawings during planting and seeding operations. Do not use fertilizer for wetland plants or in excessively wet areas.
- 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. Balled and burlapped plants shall be set on the ground and the ball covered with soil. Until planted, all material shall be properly maintained and kept adequately moist, to the satisfaction of the Engineer.
- 4. <u>Inspection</u>: 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 root balls, 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 trees, shrubs and herbaceous shall be laid out in random and naturalistic arrangements, as specified in the Contract Drawings unless otherwise directed by the Engineer. 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 subsoil/subgrade to a depth of six (6) inches prior to topsoil placement so that the topsoil and subsoil layers don't mix. Loosen subsoil with rototiller, backhoe or discer. The soil-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 tree/shrub on the undisturbed solid ground in the center of the area.
 - 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. Apply topsoil, utilizing small equipment that does not compact soil.
 - 7. Plant Beds: All plant material shall be planted in existing on-site and/or locally available topsoil, except for shallow plantings installed within the specified four-inch (minimum) topsoil layer.
 - 8. 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.

- 9. 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.
- 10. Topsoil mix shall be lightly tamped around the base of all plants and trees. Avoid compacting the soil. As clay soils are particularly prone to compaction, especially if worked when wet, transplant into clay soils when they are not saturated to the greatest extent possible. Do not leave plants exposed to sun or wind prior to planting. Take special care to avoid desiccation of fibrous-rooted plants.
- 11. 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.
- b. Planting Trees and Shrubs.
 - 1. Trees and shrubs shall be planted before herbaceous plants to avoid trampling of the smaller material.

 The Contractor shall properly sequence plant delivery to achieve this progression.
 - 2. Balled and burlapped. The roots of balled and burlapped plants shall, if not immediately planted after digging and inspection, be adequately protected by topsoil until planted in their final location. Handle balled plants so that the ball will not be loosened. After the soil has been thoroughly firmed under and around the ball, cut the burlap away from the upper

half of the ball and adjust remaining burlap to prevent the formation of air pockets; when directed by the Engineer remove the burlap entirely. Firm the soil at 6" to 8" intervals and thoroughly settle with water. Remove all wire baskets from root balls, unless otherwise directed by the Engineer. Install mulch around trees and shrubs immediately after installation.

- 3. Container. Cut containers on 2 sides with an approved can cutter and remove plant from container. Set container grown stock as specified. If container grown plant is root-bound or can be easily pulled from container, plant shall be rejected. Place plant on a cushion of planting soil mixture and carefully work soil mix around roots by hand and puddle with water until the soil mix layers are completely saturated.
- 4. Tube stock. Plants shall be removed from tube entirely and without damage. Plugs shall have solid soil/root masses with the soil in place. Roots must appear clean and white in coloration. If plug is root-bound or can be easily pulled from tube, plant shall be rejected. Plug shall be installed in hole perpendicular with root collar and even with the surrounding grades. Plant to be firmed in to remove air pockets, then watered to full saturation.
- 5. Mix granular 12-14 month slow release Osmocote into the top two inches (2") of soil backfill at the rates indicated on the Contract Drawings. Apply Mycorrhizal inoculants directly to the root ball. The top of the root ball/container soil shall be level with the substrate surface. Excess substrate shall be distributed around the planting sites. No saucers shall be constructed around the planting sites with the excess substrate.
- 6. Mulch pits, trenches and all planted areas. Provide not less than a three (3) inch thick layer of mulch and work into top of soil and finish level with adjacent finish grades. Do <u>not</u> place mulch within six (6) to eight (8) inches of tree trunks, nor should the base of shrubs and other plants be covered by mulch. No

separate payment shall be made for mulching planted areas.

- 7. Prune, thin out and shape trees in accordance with standard horticultural practice. Prune trees to retain required height and spread. Unless otherwise directed by the Engineer, do not cut tree leaders, and remove only injured or dead branches from flowering trees, if any. Prune plant material to retain natural character.
- 8. Trees shall be placed with the tags facing North.
 Placing the trees in the same orientation to the North
 as they were grown in the nursery shall serve to limit
 bark sun scald.
- 9. Guy and stake street trees immediately after planting, as required by the Engineer. Trees planted as part of a natural area restoration must use modified staking system if deemed necessary. Stakes shall be removed after one complete growing season.
- 10. Stake all trees within 20 feet of a surface water feature, so that they will not be washed away in time of flood.
- 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. <u>Temporary Seed Mixture</u>

- 1. A temporary seed mixture shall be used to stabilize stockpiles and portions of the site where construction activities have temporarily or permanently 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 of 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 (Aptil 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. Terratack, 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 (100 200 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. <u>Permanent Seed Mixture</u>

- 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. Apply seed at a rate(s) specified on the Contract Drawings.

- 7. 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.
- 8. Method of Seeding Seed shall be broadcast by hand or mechanically using a drop-hopper. The seed shall then be sown to depths of 0-0.25" using an ATV pulling a weighted drag of the same width as the ATV, with bolts inserted every 4-6" along its width in order to open up furrows in the soil of up to 0.25" in depth. The ATV should drag the seeded area a minimum of four (4) times.
- 9. 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.
- 10. 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, (800) 582-4005 or approved equal. 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. Hay is not acceptable due to its high weed content.
- 11. 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.
- 12. 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. <u>Final Acceptance</u>

Trees, shrubs and herbaceous plants must be thriving. Planting beds must be evenly mulched and 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. <u>Final Cleanup</u>

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. <u>Wetland Plantings</u>:

1. <u>Installation</u>

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. Plant material scheduled for planting in coconut fiber logs shall also be rooted and potted in coconut fibers, and not in potting soil. This requirement shall serve to safeguard against plants floating out of coconut fiber logs due to the washing away of potting soil.

- At the elevations described and shown on the plans, the areas shall be fine graded, prepared for planting and landscaped.
- b. Subgrade shall be kept free of waste material and debris. Subgrade shall be compacted prior to topsoil application at the Engineer's direction.
- c. Remove stones over 1-1/2 inches in any dimension, as well as sticks, rubbish and other extraneous matter.
- d. The planting areas shall be worked up well, and shall be free of other vegetation and large clods of soil.
- e. Install erosion control mat.
- f. Apply fertilizer at rate specified in Contract Drawings during planting and seeding operations.

2. Erosion Control Blankets

a. Center a blanket in the bottom of the wetland area and anchor the erosion control blankets in a minimum 8" x 8" slot using five evenly spaced staples. Unroll blankets carefully in the direction of water flow, being careful to place blankets loosely and in full contact with the soil.

- b. Overlap blanket edges approximately 4" with downstream edges over upstream edges.
- c. Staple blankets using approximately 3 staples per square yard.
- d. Overlap blanket ends 6" in a minimum 8" x 8" check slot, upper blanket over lower blanket and staple using five evenly spaced staples.
- e. Cut excess blanket with scissors and anchor at the entrance to the weir/micro pool in a minimum 8" x 8" check slot with five evenly spaced staples.
- f. Blanket shall not float or bubble anywhere after wetland is inundated with water.

3. Planting Operations

- 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. 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 tree/shrub 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.
- The storm sewers tributary to BMPs should not be put into g. service for 6 to 8 weeks after completion of the associated wetland plantings. This will permit the wetland plantings to establish themselves.

O. Measurement and Payment

The quantity to be measured for payment under this section shall be the total amount of trees, shrubs, 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-A1 through BMP-7.401-I inclusive. The price bid shall be a separate unit price per tree, shrub and 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, staking, guying, anchoring, wrapping, mulching, fertilizing, furnishing seed, seeding, liming, discing, raking, tilling harrowing, mowing, material, and maintaining all plant material and seeded 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. BMP-7.401-I.

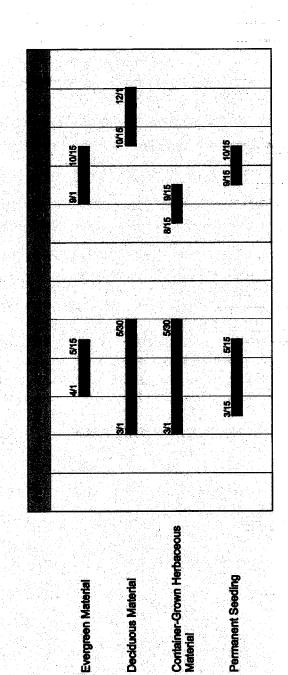
PLANT MATERIAL SUMMARY FOR LANDSCAPING WORK

<u>Item</u>	<u>Description</u>
BMP – 7.401-A2 inclusive BMP-7.401-H inclusive BMP-7.401-I inclusive BMP-7401-J inclusive	Canopy Trees – 1 " Shrubs Seeding Herbaceous Plants – Plugs

HIS The 6000 Cemento FigiSol-Plenting Schedule, odr 9-11-08

Vivision VII - Detailed Specifications - Contract Landscaping and Restoration Work

Terrestrial and Wetland Zone
Planting, Transplanting and Seeding Schedule



7.402

SOD

7.403 TOPSOIL FOR RESTORED AREA

A. <u>Description of Work</u>

Under this item, the Contractor shall prepare topsoil areas and shall furnish, place and incorporate topsoil in accordance with the plans and specifications or as directed by the Engineer.

The Contractor shall be liable for any damage to property caused by topsoiling operations and all areas of construction disturbed shall be restored to their original condition to the satisfaction of the Engineer.

B. <u>Material</u>

Material shall consist of natural loam topsoil, free from subsoil. It shall be removed to a maximum depth of one (1) foot, or until subsoil is encountered. Topsoil shall be of uniform quality, friable, free from hard clods, stiff clay, hard pan, partially disintegrated stone, stones larger than one (1) inch diameter, 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 topsoil material.

All topsoil shall be tested by a New York State Cooperative Extension office or by an approved analytical laboratory with 5 years documented history of soil testing for state, city or county projects.

Topsoil from site stripping shall be tested prior to stripping. Soil test shall be performed per five (5) acres and at the extremes of elevations. After site topsoil has been stripped, stockpiled, and amended per soil test results, the stockpiled topsoil shall be tested again. For imported and stockpiled topsoil, soil tests shall be required and shall serve as a representative analysis for every 200 cubic yards of material utilized.

Topsoil shall comply with the following requirements: No topsoil shall be delivered in a frozen or muddy condition.

1. Organic Content: Topsoil shall contain a minimum four (4) percent organic matter and a maximum of fifteen (15) percent organic matter determined by loss, on ignition, of moisture-free samples dried in accordance with the current method of the Association of Official Agricultural Chemists. The acidity range shall be pH 5.5 to pH 6.5 inclusive.

2. <u>Nutrient Content</u>: Magnesium, nitrogen, postassium, phosphorus levels, and soluable salts.

	Ra	nge	Nutrient
4		8 (PPM)	Phosphorus (P)
66	_	100	Magnesium (Mg)
115	_	164	Potassium (K)
0.36	-	0.75	Boron (B)
0		49	Iron (Fe)
0.5		1.0	Zinc (Zn)
85		120	Nitrogen (N)

Soluble salts shall be less than 2.5 millisemens.

- 3. <u>Total Petroleum Hydrocarbon Content</u>: Topsoil shall be tested for total petroleum hydrocarbons (TPH) by the Gravimetric-Hexane Method, as approved by the US Environmental Protection Agency. Topsoil shall contain less than 150 ppm total petroleum hydrocarbons. All soil testing positive shall be rejected and removed from the site.
- 4. <u>Sieve Analysis</u>: (By Wash Test, ASTM Designation C117)

The mechanical analysis of the soil shall be as follows:

Passing 2" sieve 100%
Passing 1" sieve 95% to 100%
Passing #4 sieve 90% to 100%
Passing #100 sieve 30 % to 60%

- 5. <u>Electrical Conductivity:</u> Topsoil should have a maximum electrical conductivity of 1,000 micromhos/centimeter.
- 6. <u>Invasive, Nonnative Plant Species</u>: Topsoil shall be free of invasive nonnative plant propagules or if present, topsoil shall be sterilized with documentation.

When topsoil otherwise complies with the requirements of the specifications but shows an organic matter deficiency of not more than one (1) percent, organic matter may be incorporated when and as permitted by the Engineer.

The Contractor shall at the direction and discretion of the Engineer, or when quantities exceed two hundred (200) cubic yards, furnish a certified report of an approved analytical chemist showing the analysis of representative samples of the topsoil which he/she proposes to use. All samples are to be

<u>DIVISION VII - DETAILED SPECIFICATIONS</u> — CONTRACT SE-803

taken by the Engineer and delivered to the laboratory. The price bid shall include inspection and laboratory charges. No topsoil shall be delivered until the approval of samples by the Engineer, but such approval shall not constitute final acceptance. The Engineer reserves the right to reject on or after delivery any material which does not, in his/her opinion, meet these specifications.

The Engineer reserves the right to reject topsoil in which more than sixty (60) percent of the material passing the No. 100 U.S.S. mesh sieve consists of clay as determined by the Buoyoucous Hydrometer or by the decantation method. All percentages are to be based on dry weight of sample. If the Engineer directs, topsoil which varies only slightly from the specifications may be made acceptable by such corrections as the Engineer deems necessary.

C. <u>Preparation of Topsoil Areas</u>

Before any topsoil is placed, the subgrade shall be graded to a smooth, uniform surface, parallel to and below finished grade, the depths of which are shown on the plans or as directed by the Engineer. The subgrade surface shall be compacted with an approved roller weighing approximately five hundred (500) pounds. Hollows, depressions and gullies shall be filled with acceptable material free from stones over one (1) inch in diameter, cinders, rubbish and other unsuitable material. Fill which is four (4) inches or more in depth shall be compacted to the satisfaction of the Engineer.

All bumps, mounds, and ridges shall be cut down to subgrade elevations as shown in the Contract Drawings. All areas of the subgrade that are not in a friable condition shall be loosened to a depth of twelve (12) inches as directed by the Engineer. All surplus material and debris shall be removed and disposed of as directed by the Engineer.

D. Spreading

Topsoil for upland areas shall be spread and compacted to the overall depth of that which exists within the restoration area or to three (3) inches, whichever is greater. Topsoil for wetland areas shall be spread and compacted to the overall depth of that which exists within the wetland area or to four (4) inches, whichever is greater. The contractor shall use the lightest equipment appropriate to spread and compact the topsoil. Topsoil shall not be handled when, in the opinion of the Engineer, it is too wet.

Topsoil for backfilling planting pits and planting beds shall be mixed with compost having the general properties of humus in the following proportions:

Two (2) parts of topsoil to one (1) part of compost. They shall be thoroughly mixed by placing the compost evenly over the topsoil piles and turning the piles at least three (3) times or until thoroughly mixed to the satisfaction of the Engineer.

Topsoil mixed on-site must be tested by the Contractor and have a pH of 5.5-6.5.

The finish grade shall not be excessively compacted. Finish grade to 12" below soil surface shall be loose, friable soil and not excessively compacted to the satisfaction of the Restoration Specialist. Maximum acceptable compaction is to 83% of the standard (AASHTO) Proctor maximum dry density. Conversely, soil shall not be so loose that there is potential for extensive settlement, slumping, soil erosion, or excessive drainage. On-site compaction tests, if required, shall be a standard test such as Nuclear Density Meter, or Sand Cone, or Balloon Density performed at contractor expense. After finish grading, and prior to installation of any erosion control fabric, planting, seeding, the Restoration Specialist shall inspect extent of soil compaction. Restoration Specialist shall re-inspect extent of compaction after completion of all site work. If required, Contractor will be required to loosen top 12" of soil to the satisfaction of the Restoration Specialist.

E. Mycorrhizal Inoculants

All trees and shrubs planted in areas receiving topsoil from off-site sources or on-site topsoil stored more than one (1) year shall be inoculated with Mycorrhizal.

F. Measurement and Payment

The quantity of topsoil to be paid for under this item shall be the number of cubic yards of topsoil 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 topsoil to be paid for under this item shall be measured in cubic yards in trucks used for delivery. No topsoil shall be furnished until ordered by the Engineer. (No deductions shall be made except for the volume of topsoil displaced by balls of trees, except in paved areas). 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 Topsoil shall be as indicated on the BID SCHEDULE OF PRICES Item No. BMP-7.403. The bid price shall be a unit price per cubic yard of topsoil, and shall include the cost of all labor, materials and equipment necessary to prepare topsoil areas, furnish, mix,

place and incorporate topsoil and compost, and all other work incidental thereto, in accordance with the plans and specifications to the satisfaction of the Engineer.

* * * * *

7.404 <u>RESTORATION SPECIALIST (CONSTRUCTION MONITOR)</u>

7.405 <u>VECTOR, PEST AND WILDLIFE CONTROL</u>

A. <u>Description of Work</u>

When, in the course of construction, the Engineer deems it necessary, the Contractor shall make arrangements to immediately implement a Vector and Pest Control Program at the construction site. All work is to be performed by a Licensed Applicator, and shall comply with all NYC and NYS Department of Health requirements for Vector and Pest Control and the methods outlined below. The work shall also include the control of mosquito larvae. The work shall be performed on a periodic basis as determined by the Engineer.

The Contractor shall also make arrangements to hire a Wildlife Control Agent, licensed by the NYSDEC, for live capture and removal of muskrats and any other wildlife if the Engineer deems it necessary. The wildlife, which shall include pond life such as fish, frogs, and turtles shall be removed before full-scale construction begins. The wildlife shall be relocated off-site and upstream.

It is anticipated that once construction commences, the resident water fowl will leave the existing wetland areas. However, if the waterfowl do not leave on their own following the commencement of work in the wetland areas, the Wildlife Control Agent shall make recommendations for their removal, and shall relocate the waterfowl to another water body on Staten Island.

All work in this item shall be supervised by the Restoration Specialist.

B. Material

- 1. Rodent Control Rodent control shall be done in accordance with the applicable sections of New York City Department of Transportation Standard Highway Specification 7.88 Rodent and Waterbug Pest Control.
- 2. <u>Mosquito Control</u> As directed by the Engineer or Restoration Specialis, the licensed application shall treat stagnant water for mosquito larvae with products approved by the New York City Department of Health. These include Vectolex, Altosid, Vectobac, and Aquabac. Products used shall consist of the naturally occurring bacteria, Bacillus thuringienis.
- 3. <u>Wildlife Control</u> The effort to live capture and remove pond life such as muskrats, fish, frogs and turtles shall be undertaken by a Wildlife Control Agent, licensed by NYSDEC, employing various

materials such as seines for catching fish, traps for live capture of turtles and muskrats, and possible use of electric shock to also capture fish.

C. Method

Application of rodent control shall be per the applicable section of New York City Department of Transportation Standard Highway Specification 7.88 Rodent and Waterbug Pest Control.

Application of insecticide shall be as per the manufacturer's recommended procedures and shall be in compliance with all applicable rules and regulations and at the direction of the Engineer.

The Applicator shall be responsible for collecting and disposing of all trapped and poisoned rats found in live-traps and tamper-proof boxes, and for the removal of all live-traps and tamper-proof boxes at the end of the work. The Applicator shall be responsible for posting and maintaining signs announcing the baiting and spraying of a particular location.

The Wildlife Control Agent licensed by NYSDEC, who will be responsible for the live-capture and removal of pond life shall use various techniques to accomplish his/her task. As the water in the pond is slowly drawn down, life will be concentrated in the center of the pond. A geofabric may need to be rolled over the muck to make the center of the pond accessible. The fish shall be caught with a seine (net), electric shock or other approved method, and shall be scooped into buckets. Traps shall be used for turtles. Buckets containing wildlife shall be kept shaded, and wildlife shall be relocated to off-site and upstream release sites immediately so that there is no need to use aerators.

D. <u>Measurement and Payment</u>

The quantity to be measured for payment under this section shall be the total number of hours necessary for completion of Vector, Pest and Wildlife Control.

The contract price per unit for Vector, Pest and Wildlife Control shall be indicated on the BID SCHEDULE OF PRICES Item No. BMP-7.405-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 Engineer.

7.406 WOOD CHIPS

A. <u>Description of Work</u>

Under this item, the Contractor shall furnish and place wood chips, as directed by the Engineer. The Contractor shall spread the chips over the surface of the ground in selected areas prone to erosion (i.e. bare ground) as directed by the Engineer. In general, the Contractor shall spread wood chips on dirt roads and trails to stabilize them and to prevent erosion. Shaded areas where the ground surface has been disturbed and which are not designated for seeding/mulching shall receive wood chips. This item shall not be used for the mulching of landscaped areas and BMPs.

The Contractor shall carefully protect against damage of all existing trees, plants and other features to remain and shall be liable for any damage to such trees, plants, structural features and other property caused by wood chipping operations. All damaged trees, plants, structural features and other property shall be replaced or restored to their original condition to the satisfaction of the Engineer.

B. <u>Materials</u>

Wood chips shall be a natural organic product free from deleterious materials and suitable for dressing bare ground surfaces. Wood chips shall be of any wood except elm, and shall not be from diseased trees. No pieces shall be greater than 3 inches in length and 1 1/4 inches in width, and from and approved source. Wood chips produced on the site may be used for this work.

C. Construction Methods

Placement of wood chips shall be done by competent workers only and in a professional manner.

Chips shall be transported to receiving sites in Contractor's vehicle (e.g. dump truck, front end loader). Wheel barrows shall be used for transporting wood chips into work areas not accessible from the road. Rakes shall be used for spreading the wood chips over the surface of the ground at selected areas.

The wood chips shall be spread to varying depths as necessary to fill in/smooth out ruts and depressions and dress surface areas to the satisfaction of the Engineer. The minimum thickness for the wood chip layer shall be two (2) inches.

D. <u>Measurement and Payment</u>

The quantity to be measured for payment shall be as described herein and on the plans.

The price bid shall be a unit price per cubic yard for wood chips furnished as indicated on the BID SCHEDULE OF PRICES Item No. BMP-7.406. The bid price shall constitute full compensation for all materials, labor, equipment and work incidental thereto, necessary to complete this item in accordance with the plans and specifications to the satisfaction of the Engineer.

7.407 <u>JUTE MESH</u>

A. <u>Description of Work</u>

Under this item, the Contractor shall furnish and place jute mesh for steep slope protection within areas designated on the plans or where directed by the Engineer.

B. <u>Material</u>

JUTE MESH SPECIFICATION

Property	Test Method	Typical Value	<u>Units</u>
Yard Fiber	THE CONTRACTOR	Natural fiber woven jute, undyed & unbleached	
Yarn Count – Warp		78 per width min	
Weft	134, 14	42 per linear yard, min	
Color		Natural (Brown, Earth Tone)	
Fabric Width	-	48"	Inches
Fabric Weight Strands per Warp	- ASTM D-3775	14 19.5	oz/sq. yd.
per Weft	ASTM D-3775	14	
Mass per Unit Area	ASTM D-3776 Warp	14.7	oz/sq. yd.
Grab Tensile - Dry	ASTM D-4632 (modified) Fill	300 175	lbs/ft lbs/ft
Grab Tensile – Wet	ASTM D-4632 Warp	125	lbs/ft
	(modified) Fill	65	lbs/ft
Elongation at Break	ASTM D-4632 Warp	10	%
	(modified) Fill	10	%
Open Area	C.O.E. CW 002215	60-65	%
Durability	Field Experience	2-Jan	%
Water Velocity	University Channel Test	8	ft/sec

Unit Shear Test	University Channel Test	2.76	lbs/sq. ft.
"C" Factor	-	0.3	-
(1.5:1 Slope)			
Mannings N	University Channel Test	0.0237	-

Wire Staples shall consist of 12-inch lengths of No. 11 gauge wire bent to form a "U" or other wire staples as approved.

Wood Pegs shall be wedge-shaped, approximately 1" x 2" x 6".

<u>Smolder Resistance:</u> The jute mesh shall be treated so as to be smolder resistant, meeting the following conditions:

The cloth shall be made resistant to smoldering and/or after-glow by treatment with non-leaching and non-toxic chemicals. The chemicals must be non-toxic to vegetation and the germination of seed. The chemicals used for this purpose must resist leaching based on the equivalent of two inches of rain. The cloth itself shall bear some identification mark to differentiate it from untreated jute cloth.

<u>Test Method:</u> When a lighted cigarette is placed on the upper or treatedsurface of the cloth, neither flame nor after-glow will proceed in any direction more than 12" from the original position of the cigarette after it has burned out completely.

C. Method

Jute mesh shall be placed on topsoil perpendicular to slope contours where directed by the Engineer. Jute mesh shall be laid without stretching so that it lies loosely on the soil and in contact with the soil at all points and shall be pressed firmly into the soil surface by rolling or tamping. If seeding is required, it shall be done prior to the installation of the jute mesh.

The upper end of each roll of jute mesh shall be turned and buried to a depth of six (6) inches, with the soil firmly tamped against it. Jute mesh 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 jute six (6) inches vertically into the ground with replaced soil tamped firmly against it.

Jute mesh shall be held tightly to the soil by staples or wood pegs driven firmly into the ground. Staples or wood pegs shall be spaced not more than

three (3) feet apart, along the sides and center of the jute mesh and not more than one (1) foot apart at roll ends, check slots and at other critical areas as determined by the Engineer.

D. <u>Maintenance</u>

The Contractor shall maintain the areas of jute mesh installation until final acceptance of the contract. Maintenance shall consist of providing protection for jute mesh 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 jute mesh has been installed in accordance with the plans and specifications and directions of the Engineer.

The Contract price per square feet of Jute Mesh shall be as indicated on the BID SCHEDULE OF PRICES Item No. BMP-7.407. 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.

7.408B <u>HERBICIDE APPLICATION</u>

A. <u>Description of Work</u>

Under this item, the Contractor shall apply herbicide to persistent weeds and weedy growth in accordance with the plans and specifications and as directed by the Engineer.

B. Quality Assurance

The Herbicide Applicator must possess a valid NYSDEC Type 5A - Aquatic Vegetation Pesticide Applicator Certification License.

C. <u>Materials and Construction Methods</u>

The work will eradicate invasive, non-native plants in upland and wetland areas using Glyphosate for eradication of all plants except Oriental Bittersweet, which will be treated with Garlon 4. All chemicals to be applied using backpack and hand held sprayers and individual stem wipe applications. Herbicides application to open water/marshlands is prohibited.

In Wetlands, the Contractor shall spray Rodeo Herbicide or approved equal onto specified weedy growth only, as directed by the Engineer, between May and September.

The Applicator shall spray to wet--not to the point of runoff. Care must be taken to properly calibrate the tank nozzle so as to direct herbicide spray only onto the undesirable plants and obtain complete coverage of leaves and stems. Avoid spray drift onto desirable plants and minimize spray contact with soil. It is recommended to spray when plants are not under water stress. Only flat pan nozzles shall be used when using a spray applicator.

In areas where invasive plants are tightly intermixed with native plants, the applicator shall use the individual wipe or injection method to prevent the accidental treatment of desirable plant material. Marking dyes shall be added to the herbicide at the request of the engineer to prevent the accidental treatment of desirable plant material.

Apply on a warm sunny day (75 degrees to 90 degrees preferred). <u>Do not spray if wind speed exceeds 5 mph or if weather conditions would decrease the effectiveness of the herbicide or increase the intended target area.</u> Do not apply or allow herbicide spray into surrounding waterbodies. Do not exceed the rates indicated on product labels.

A non-ionic surfactant that is labeled for use with herbicides shall be added to the herbicide to help penetrate targeted plants for increased control. Surfactant must contain 50% or more active ingredient.

When using water from on-site hydrants, remove all suspended particles that may reduce the effectiveness of the herbicide prior to adding the water to the mixing tank.

All treated areas shall be temporarily posted with signs indicating that the area has been treated with herbicide. Signs shall be clearly posted in areas where the public may come into contact with the plant material.

The Contractor shall return to the site after ten (10) days and remove any dead vegetation that may interfere with planting of new material. If a second application is deemed necessary, a minimum of 10 days is required before installing any new plant material. Planting may proceed when the site is deemed acceptable to the Engineer.

The plant species to be eradicated shall primarily include, but not be limited to the following, and shall include additional species at the direction of the engineer:

Japanese Knotweed (Polygonum cuspidatum) Mutiflora Rose (Rosa mutiflora) Purple Loosestrife (Lythrum salacaria) Oriental Bittersweet (Celastrus orbiculatus) Black Locust (Robinia psuedoacacia) Japanese Honeysuckle (Lonicera japonica) Common Reed (Phragmites australis) Mile-A-Minute Vine (Polygonum perfoliatum) Mugwort (Artemisia vulgaris) Common Ragweed (Ambrosia artemisifolia) Giant Ragweed (Ambrosia trifida) English Ivy (Hedera helix) Japanese Stiltgrass (Microstegium vimineum) Porcelain Berry (Ampelopsis brevipedunculata) Burning Bush (Euonymus alatus) Russian Olive (Elaeagnus angustifolia) Giant Hogweed (Heracleum mantegazzianum) Tree of Heaven (Ailanthus altissima) White Mulberry (Morus alba)

D. Measurement and Payment

The quantity to be measured for payment under this section shall be the total number of crewdays (shifts) necessary for completion of Herbicide

Application. A crewday (shift) is defined as one period from 8AM - 4PM, including lunch and breaks. The crew shall consist of two workers.

The contract price per unit for Herbicide Application shall be as indicated on the BID SCHEDULE OF PRICES Item No. BMP-7.408-B. 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 Engineer.

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7.409 MYCORRHIZAL INOCULANTS

7.410 PLANT PROTECTION FENCE

WATERING AND WEEDING DURING GUARANTEE PERIOD

NO TEXT ON THIS PAGE

7.411

7.412 <u>SLOPE STABILIZATION</u>

7.413 TEMPORARY GOOSE EXCLUSION FENCE

A. <u>Description</u>

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. <u>Submittals and Materials</u>

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 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
 - 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 or string 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. <u>Measurement and Payment</u>

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.

7.414 BMP AS-BUILT PLANS

A. <u>Description of Work</u>

Under this item the Contractor is to provide all labor, materials, tools and equipment necessary to complete the work described below in complete accordance with the Contract Documents and the direction of the Engineer.

B. BMP As-Built Plans and Information

The Contractor shall be responsible for providing a survey of final topographical features with contour lines every one (1) foot of elevation at a scale of 1" = 20'. The survey shall include all adjoining property lines. The survey shall indicate and clearly label all new reconstructed/rehabilitated structural features which include but are not limited to the following:

- Tipping elevation of water at weir structure;
- Inlet and outlet elevation of low flow pipe;
- Inlet and outlet elevations of drain pipe;
- Permanent pool elevation;
- Bottom elevations of forebay, low flow channel and micropool;
- All pipes, headwalls, manholes, weirs, and any other structure that is part of the storm drainage system;
- Boundary fencing and survey monuments;
- Planting spreadsheet indicating zone elevation, species, and quantity planted;
- Location, size and species of all existing trees greater than six (6") caliper.

The Contractor shall submit the as-built plans with the above information included as an electronic file to the Restoration Specialist. The Contractor shall supply the surveys immediately after the completion of each BMP site to allow the Restoration Specialist time to complete the landscape survey. The Restoration Specialist shall verify the contractor's information and include his/her information along with any additional planting and natural features information on a separate sheet to the as-built plans. Paper prints of the completed as-built plans shall be provided by the Contractor to the DEP representative, its agent or the Engineer for review.

The approved final as-built plans shall be stamped by the professional surveyor and sent as a mylar set to the NYC Department of Design and Construction for inclusion in the final complete set of project as-built plans. The final as-built BMP plans shall consist of the following three sheets per site; 1) a base map stamped by the surveyor with property lines, contours, structures, and invert elevations, 2) a tree and shrub plan, and 3) a

herbaceous planting plan. The NYCDDC shall be responsible for routing three (3) complete sets of as-built plans to the following locations:

NYCDEP Mapping and Records Division 59-17 Junction Boulevard Flushing, NY 11373-5108

NYCDEP Water and Sewer Permitting 10 Richmond Terrace Staten Island, NY 10301

NYCDEP Staten Island Bluebelt 182 Joline Avenue Staten Island, NY 10307

The Contractor shall also submit as an electronic file, AutoCAD 2008 and six sets of paper prints of the approved final (BMP only) as-built plans to the NYCDEP Bluebelt field office located at 182 Joline Avenue, Staten Island, NY 10307, and 3 sets of paper prints to the NYCDEP Staten Island Bluebelt main office located at 59-17 Junction Boulevard, 12th Floor, High Rise, Flushing, NY 11373-5108.

C. <u>No Separate Payment</u>

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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7.415 <u>VINE AND INVASIVE PLANT REMOVAL</u>

A. Description of Work

Under this item, the Contractor shall remove all vines and invasive plants at Staten Island Bluebelt properties throughout the BMP project area and watershed and as directed by the Engineer

B. General Removal Methods

All vine and invasive plant material shall be removed by hand. The removal of these plant and materials shall be from existing trees, fence lines, utility poles and lines, adjacent structures, BMP sites, and other areas within the watershed. All vines and invasive plant material removed shall be disposed of by the Contractor at the Contractor's own expense.

The Contractor shall carefully protect all trees, shrubs and other plant material and structures during the vine and invasive plant removal operation. Any repair to damaged trees, fence, shrubs, and other plants and structures resulting from the vine and invasive plant removal operation will be repaired by the Contract at the Contractor's own expense.

The removal of vines and invasive plants under this item is to be done in conjunction with the work covered under Specification Section 7.408B, Herbicide Application.

The vines and invasive plants to be removed will be identified by the Engineer and restoration specialist and clearly marked prior to removal. No trees are to be removed under this item.

The plant species to be eradicated primarily include, but shall not be limited to the following, and shall include additional species at the direction of the engineer:

Japanese Knotweed (Polygonum cuspidatum)
Mutiflora Rose (Rosa mutiflora)
Purple Loosestrife (Lythrum salacaria)
Oriental Bittersweet (Celastrus orbiculatus)
Black Locust (Robinia psuedoacacia)
Japanese Honeysuckle (Lonicera japonica)
Common Reed (Phragmites australis)
Mile-A-Minute Vine (Polygonum perfoliatum)
Mugwort (Artemisia vulgaris)
Common Ragweed (Ambrosia artemisifolia)
Giant Ragweed (Ambrosia trifida)
English Ivy (Hedera helix)

Japanese Stiltgrass (Microstegium vimineum)
Porcelain Berry (Ampelopsis brevipedunculata)
Burning Bush (Euonymus alatus)
Russian Olive (*Elaeagnus angustifolia*)
Giant Hogweed (Heracleum mantegazzianum)
Tree of Heaven (Ailanthus altissima)
White Mulberry (Morus alba)
Norway Maple (Acer platanoides)

C. <u>Measurement and Payment</u>

Red Flags Danger Signs

The quantity to be measured for payment under this section shall be the total number of crewday (shifts) necessary for completion of Vines and Invasive Plant Removal. A crewday (shift) is defined as one period from 8AM – 4PM, including lunch and breaks. The crew shall consist of three gardeners and one supervisor. The crew shall also consist of the following equipment:

One (1) truck (10-15 cubic yard enclosed hydraulic dump body)
Manual Pole Saw (2)
Full Size Lopping shears
Tool Kit including files for minor mechanical repairs
Dirt Shovel
Sweep Type Broom Rake
Hand Saw
First Aid Kit
Ear and Eye Protectors
Hand Saw with Scabbard (2)
Axe
Broom
Hard Hats
Safety cones

The contract price per unit for Invasive Vine and Plant Removal shall be as indicated on the BID SCHEDULE OF PRICES Item No. BMP-7.415. The unit price bid shall include the costs for all labor, materials, equipment, vehicles and incidental expenses necessary or required to complete the work in accordance with the plans and specifications to the satisfaction of the Engineer.

DIVISION VII - DETAILED SPECIFICATIONS— CONTRACT SE-803

7.415A WILDLIFE STRUCTURES

7.416 GALVINIZED CHICKEN WIRE

7.417 <u>DEBRIS EXCLUSION-FENCE</u>

7.418 <u>CLEAN SAND FOR RESTORED AREA</u>

7.419 TREE AND ROOT PRUNING

A. <u>Description of Work</u>

Under this Section, the Contractor shall provide all labor, materials, equipment, insurance, licenses, permits and payments of fees, tolls and taxes, together with all work required for general branch and root pruning, including the removal of all debris generated during the completion of this work.

All work shall be performed as directed by DEP's on-site authorized Representative. The work to be performed by the Contractor shall be done only when and where the Contractor is ordered to perform such work by DEP. Tree pruning in natural areas may have restricted or no vehicle access and in such cases trees will have to be climbed and roped by experienced personnel.

Skilled persons directly employed and supervised by the Contractor shall perform all work. All work shall be performed in a professional manner and in accordance with the most current revisions of the American National Standards for Tree Care Operations: Tree, Shrub, and other Woody Plant Maintenance and Standard Practices A-300-2001 and the American National Standards for Arboricultural Operations: Pruning, Repairing, Maintaining, and Removing Trees, and Cutting Brush — Safety Requirements Z-133.1-2000, published by the American National Standards Institute (ANSI).

Contractors shall have in their possession, or available to them, the following materials: trucks, aerial lifts, chippers, hand tools, climbing equipment, and other equipment and supplies required to perform this work. The Contractor shall also have current certification to perform the work, as specified below.

The description of the work is for general information only. It is not to be construed as an exclusive definition of the quantity or type of work that will be required.

B. <u>Health and Safety</u>

All work shall follow all arboricultural standards, as specified herein, and all City, State and Federal regulations as applicable. The Contractor is responsible for the preparation and submission of a Health and Safety Plan to DDC. The HASP must be approved by DDC before any of the work begins. In accordance with the HASP, the Contractor shall perform the work with all due care, taking precautions against injury to persons and damage

to property, and against interference with traffic or abutting property. The Contractor shall at his/her expense erect barricades, display lights or signs, give warnings and adopt and enforce rules and regulations as may be necessary or required by DDC or by authorities having jurisdiction to safeguard the public.

The Contractor shall furnish a twenty-four (24) hour telephone number of three (3) responsible members or employees of the Contractor's firm who can be reached in times of emergency resulting out of or in connection with the work to be performed.

C. Personnel and Equipment

All work shall be performed by skilled persons directly employed and supervised by the Contractor.

1. Contractor's Certification and Experience

- a. At least one employee on each crew working within ten (10) feet of energized conductors must be a qualified line clearance tree trimmer.
- b. The pruning shall be performed under the supervision of an "ARBORIST" from the International Society of Arboriculture (I.S.A.) or an equivalent certification or experience.
- c. The Contractor shall be certified by the New York State Department of Agriculture and Markets to perform work within Asian Longhorned Beetle Quarantine Zones.

2. Contractor's Equipment List

- a. The Contractor shall furnish a list of proposed vehicles and equipment to be used in the completion of this work at the time of the pre-construction meeting.
- b. All equipment shall be in good working condition. The Contractor shall remove and replace any equipment in unsatisfactory condition or unsuitable for the required work as deemed by DDC.
- c. To ensure that out of service equipment be returned to service in two (2) days or less, the Contractor shall provide at all times a 24 hour repair or replacement center with maximum response time of two (2) hours.

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<u>DIVISION VII - DETAILED SPECIFICATIONS—</u> CONTRACT SE-803

- d. Unacceptable equipment or lack of equipment shall be grounds for disqualification of the Contractor.
- e. All required documentation and information must be provided at the time of the pre-construction meeting unless otherwise agreed to by DDC.

D. <u>Tree Pruning Method</u>

The Contractor shall prune trees in accordance with accepted aboricultural practices, to the satisfaction of and in the order directed by DEP's authorized Representative.

At each marked tree location, the Contractor shall perform some or all of the following pruning work as directed by DEP's authorized Representative.

- 1. Crown Cleaning to remove dead, broken, crossing, rubbing, damaged (storm or otherwise), fungus and insect infected branches, dead or decaying stubs, suckers and all other undesirable growth. Live growth should not be removed unnecessarily. Clean pruning will be performed on all branches 1 inch in diameter and larger. Injured areas where healing is not taking place properly may be bark traced in accordance with accepted arboricultural practices.
- 2. Crown Thinning to improve the penetration of street lighting. Proper thinning retains crown shape and should provide an even distribution of foliage throughout the crown. The percentage of live foliage removed must not exceed 15%. Only remove branches ¼ to 1 inch in diameter. Excessive limb removal on the lower two-thirds of any branch or stem (lion tailing) is not acceptable.
- 3. Crown Raising to provide a vertical and horizontal clearance from vehicles, pedestrians, signs, buildings, lights, and transmission lines. In lifting bottom branches of trees for under clearance, care should be given to preserve the symmetrical appearance of the tree. This work may involve both the removal and shortening of limbs. Branches greater than half of the trunk diameter should not be removed. Unless otherwise directed, the canopy should be raised to 15 feet over roads, 8 feet over sidewalks and pruned to give 6 feet clearance from buildings.
- 4. Root pruning shall be done when roots are damaged ruing construction or excavation.

All pruning shall be completed to current best practice for either branch removal cuts (thinning cuts) or reduction cuts (lateral cuts or drop crotch cuts). Reduction cuts (lateral cuts or drop crotch cuts) should be to a lateral branch at least one-third to one-half the diameter of the removed portion. Do not leave stubs. When removing a dead branch, the final cut should be made just outside the collar of living tissue. All limbs one inch (1") in diameter (the size of a quarter) and over must be pre-cut to prevent splitting and/or bark rips. No more than 25 percent of the live crown of a single tree should be removed.

The Contractor shall carefully protect against damage to all existing trees, plants, other growths and other features to remain. He/she shall be liable for any and all damage to such trees, plants, other growths, real property and vehicles. The Contractor shall replace any injured trees as per the instructions of DEP's authorized Representative.

All trees which require maintenance due to root and trunk damage shall be guaranteed for one year against death. If during this time, said trees die due to root and trunk damage, they shall be removed and replaced according to Department of Parks and Recreation removal and tree planting specifications.

The Contractor shall lower any branch that would injure the tree or other property when falling using ropes.

In the case of trees with Dutch Elm Disease, or as directed by DEP's authorized Representative, the Contractor shall disinfect all tools between use on other trees with alcohol or bleach, due to the danger of transmitting the disease on tools. All tools shall be disinfected between each use on each tree.

In the case of locations with restricted access, parked cars or where designated trees taller than the working height of a bucket, trees shall be pruned using ropes and saddles. The use of hydraulic limb loppers, hydraulic saws or climbing spikes is not acceptable. Use of any such prohibited equipment will be grounds for default proceedings.

Working Hours

All work shall be performed during the five- (5) day, forty- (40) hour week, from Monday to Friday, inclusive between the hours of 8:00 A.M. and 4:00 P.M., except for legal holidays or unless otherwise directed by DDC. The Contractor is expected to work in rain and adverse weather, unless otherwise approved by DDC. No work shall commence on streets adjacent to schools prior to 9:00 A.M. or after 2:00 P.M., when school is in session.

The Contractor's employees shall wear identification, approved by the Project Manager, at all times while performing this work.

Work Area

All work areas shall be kept in such a manner to cause as little inconvenience as possible to the general public and adjacent property owners. When it is necessary to close pedestrian walks, vehicular traffic lanes or private driveways, the Contractor shall provide personnel barricades, warning signs, cones, flags or other means required by governing rules and ordinances.

Should work require the Contractor to place equipment and/or personnel on private property, the Contractor shall obtain the property owners' permission in writing and shall notify DEP prior to the performance of any work. The Contractor shall develop a permission/indemnification form to be used for this purpose. Sites may be designated as temporary debris staging areas at the sole discretion of DEP.

External Situations

The Contractor shall appropriately address external influences, including encounters with rats, hornets, wasps, yellow jackets or other animals and insects that could interfere with tree pruning work. The Contractor shall remove all signs, boards, hoops, bags, guide wires, tree grates, tree guards, fences, poles or other foreign objects. The Contractor is responsible for addressing and solving these problems at no additional cost to the City.

E. <u>Debris Disposal</u>

The Contractor shall remove all debris generated during the course of a day from the contract site no later than the completion of that day's work.

The Contractor must obtain written approval from DEP's site representative to store or spread clean chips on City property within the borough at designated locations.

F. Plant Pest Control Requirements

Contractors shall comply with Federal and State Department of Agriculture regulations for plant pest control. In general, State Department of Agriculture regulations require contractors operating in infested areas to thoroughly clean all equipment units before moving to non-infested areas.

The Contractor and/or subcontractors shall be certified by the New York State Department of Agriculture & Markets to perform work within the Asian Longhorned Beetle Quarantine Zone. The Contractor must review

and abide by the description of the quarantine and compliance agreements as presented in the publication entitled Part 139 of the New York State, Department of Agriculture & Markets law. Full information can be obtained from Federal and State Pest Control personnel. Quarantine areas, for the purpose of this contract shall be defined as all five Boroughs of New York City.

The Contractor shall also be responsible for complying with all state and federal requirements for infestations by the Emerald Ash Borer, including but not limited to those by the New York State Department of Agriculture and Markets.

G. Contractor's Representative

At the discretion of DEP's Representative, the Contractor or a DDC representative must be present at the work site during all times work is being performed. While this work is being performed, a Supervisor or employee of the Contractor with equivalent authority who is not a member of the work crew(s) shall be present to properly direct and deploy the work crew(s) in completing the listed work. The foregoing provision shall be complied with irrespective of whether work is being performed by the Contractor or his sub-contractor's forces. The Contractor's representative shall maintain daily communication with DEP's Representative.

H. <u>Inspection</u>

DEP shall conduct an inspection of all work to ensure compliance with specifications. DEP's Representative has final discretion for approving all work for payment. No partial payments will be made for incomplete of unsatisfactory work. After the inspection is completed and the Contractor is notified in writing by DEP, the Contractor has two (2) weeks from the date of notification to complete any incomplete or unsatisfactory work.

DDC reserves the right to hold/reject the invoice if there is any incomplete or unsatisfactory work outstanding. The City will not pay any interest on the invoices that are held due to incomplete or unsatisfactory performance of the Contractor.

I. Completion

DEP's Representative will supply the Contractor with a list of trees where pruning is to be performed. DEP's Representative shall have the right to add or delete any locations from the list. In general, the Contractor shall mobilize his/her crews within five (5) working days from the issuance of the list.

Measurement and Payment

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The quantity to be measured for payment under this section shall be the total number of crewday (shifts) necessary for completion of general tree pruning, for eight (8) consecutive hours of work performed on weekdays between the hours of 8 a.m. and 4 p.m. All mobilization and incidental costs, including the disposal of wood chips, are included in the prices submitted by the Contractor. The contract price per shift for Tree and Root Pruning shall be as indicated on the BID SCHEDULE OF PRICES, Item No. BMP-7419

BMP-225

7.500 <u>SOIL EROSION AND SEDIMENTATION CONTROL MEASURES</u>

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.
- 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, NYCDEP 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 freshwater 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 followings:

- 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 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 form 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 limiting fence, staked hay bales, and/or reinforced silt fence as shown on Contract Drawings, unless otherwise directed by the Engineer.
- Schedule work in wet areas, such as BMP sites, during relatively dry summer months.
- 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, such as sewer installation, inspect all erosion control measures and continually monitor them, especially after each storm event.
- If Permittee uses dewatering methods which produce effluent discharges, Permittee 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 Permittee 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 7.510. The work shall take place at BMP sites only and is not payment for street work or the installation of sewers.

The work shall include items of work specified under the following sections:

Section Number	<u>Title</u>
7.502	Construction Limit Fence
7.504	Reinforced Silt Fence
7.505	Sand Bags
7.506	Sediment Trap with Filter
7.509A	Stabilized Construction Entrance
7.510	Portable Sediment Tank
7.512	Dirtbag

7.501 MAINTENANCE OF EROSION CONTROL MEASURES

NO TEXT ON THIS PAGE

7.502 <u>CONSTRUCTION LIMIT FENCE</u>

A. <u>Description of Work</u>

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 DEP's authorized representative 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. <u>Materials and Methods</u>

<u>Construction Limit Fence:</u> The construction limit fence shall be a welded wire fence with a minimum height of four (4) feet. The fence shall be constructed of wire fabric fastened to vertical line posts.

Wire fabric shall be of No. 6 gauge wire with a mesh of approximately 2 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 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 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. <u>Maintenance</u>

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.

D. <u>Measurement and Payment</u>

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.

BMP-231

7.503A STAKED STRAW BALES

NO TEXT ON THIS PAGE

7.504 <u>REINFORCED SILT FENCE</u>

A. <u>Description of Work</u>

The Contractor shall furnish all materials, labor, and equipment necessary to construct reinforced 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 reinforced 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 reinforced 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. <u>Materials and Methods</u>

1. <u>Construction (Limiting) Fence:</u> The construction (limiting) fence shall be a welded wire fence with a minimum height of four (4) feet. 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 2 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 and spaced not more than 12 inches apart on rails and not more than 14 inches apart on line posts.

The construction (limiting) 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 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.

2. <u>Filter Fabric:</u> Filter fabric shall be securely attached to the vertical line posts and wire fabric, and shall be situated between the wire fabric and staked straw bales.

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 hundred (100) feet in length. When joints are necessary, filter cloth

November 2015

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 4 inches wide and 4 inches deep along the line of posts and upslope from the barrier. The filter fabric shall be extending into the trench, the trench backfilled, and the soil compacted over the filter fabric.

Siltation fences shall be removed when they have served their useful purpose, but not before the upslope area has been permanently stabilized.

3. <u>Straw Bales:</u> All straw bales shall be of straw, and shall be standard sized bales. Bales shall be placed in a single row, with ends of adjacent bales tightly abutting one another. Bales shall be placed upslope of the filter fabric, and shall at all times run parallel to the construction (limiting) fence and abut the filter fabric.

All bales shall be fiber-bound. No string bound straw bales are accepted. Straw bales shall be installed so that bindings are oriented around the sides rather than along the tops and bottoms of the bales in order to prevent deterioration of the bindings.

The straw bale barrier shall be entrenched and backfilled. A trench shall be excavated the width of a bale and the length of the proposed barrier to a depth of 4 inches. After the bales are staked and chinked, the excavated soil shall be backfilled against the barrier. Backfill soil shall conform to the ground to the ground level on the downhill side and shall be built up to 4 inches against the uphill side of the straw bale barrier.

Each bale shall be securely anchored by at least two stakes or steel reinforcing bars driven through the bale. The first stake in each bale shall be driven toward the previously laid bale to force the bales together. Stakes or reinforcing bars shall be driven deep enough into the ground to securely anchor the bales.

The gaps between bales shall be chinked (filled by wedging) with straw to prevent water from escaping between the bales. The Contract shall scatter loose straw over the area immediately uphill from the straw bale barrier to increase barrier efficiency.

Straw bale barriers shall be removed when they have served their usefulness, but not before the upslope areas have been permanently stabilized.

C. <u>Maintenance</u>

The reinforced 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.

Straw bales shall be inspected at least once per week and immediately after each rainfall and at least daily during prolonged rainfall. Close attention shall be paid to the repair of damaged bales, end runs and undercutting beneath bales. Necessary repairs to barriers or replacement of bales shall be accomplished promptly. Sediment deposits should be removed after each rainfall. They must be removed when the level of deposition reaches approximately one-half foot deep in front of the straw bale. Any sediment deposits remaining in place after the straw bale barrier is no longer required shall be dressed to conform to the existing grade.

D. <u>Measurement and Payment</u>

The quantity to be measured for payment under this section shall be the total number of linear feet of Reinforced Silt Fence, installed and maintained in accordance with the plans, specifications and directions of the Engineer. The construction (limiting) fence, filter fabric and staked straw bales which together make up the reinforced silt fence shall be measured as <u>one</u> erosion and sediment control feature.

The contract price per linear foot for Reinforced Silt Fence shall be as indicated on the BID SCHEDULE OF PRICES, Item No. BMP-7.504. 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.

BMP-235

7.505 SAND BAGS

A. <u>Description of Work</u>

The Contractor shall furnish all materials, labor, and equipment necessary to construct the sand bag wall specified herein and as shown on the Contract Drawings, including all incidental and appurtenant work required for a complete job.

The installation of the sand bag wall 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

- 1. The bags shall be of coarse heavy woven synthetic non-biodegradable and non-photo degradable.
- Sand shall meet ASTM C33 concrete and specifications.
- 3. Sand bags shall be installed at the locations shown on the Contract Drawings and as directed by the Engineer.
- 4. Each bag shall be filled with 40 lbs of dry clean sand.

C. Measurement and Payment

The quantity to be measured for payment under this Section shall be the total number of sand bags furnished and installed in accordance with the Contract Drawings, specifications and directed by the Engineer.

The contract price per sand bag shall be as indicated on the BID SCHEDULE OF PRICES, Item No. BMP-7.505. 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.

7.506 <u>SEDIMENT TRAP WITH FILTER</u>

A. <u>Description of Work</u>

The Contractor shall furnish all materials, labor, and equipment necessary to construct the Sediment Trap specified herein and as shown on the Contract Drawings, including all incidental and appurtenant work required for a complete job. A Sediment Trap is typically intended to serve a drainage area of three acres or less. Therefore, it is not as large as a sediment basin.

Upon furnishing and installing the approved sediment trap but prior to commencing dewatering operations, the Contractor shall notify the Engineer and arrange for an on-site inspection.

The sediment trap 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. <u>Materials</u>

- 1. Rip-Rap: The rip-rap shall have a d50 of 6".
- 2. <u>Staked Hay Bales</u>. All Hay Bales shall be of straw and shall be standard sized bales as shown in the Contract Drawings. All bales shall be fiber-bound. No string-bound hay bales are acceptable.
- 3. <u>Perforated Corrugated Pipe</u>. A six inch diameter pipe shall be used as shown on the Contract Drawing.
- 4. <u>Sand bags</u>. The bags shall be of coarse heavy woven fabric (burlap). The sand shall meet ASTM C33 concrete specifications.
- 5. <u>Filter Cloth.</u> The filter cloth used for wrapping the corrugated pipe, shall be Encadrain 9120 or equivalent with the following specifications:

Property	Test Method	<u>Unit</u>	
Material Unit Weight Flow Rate Puncture Thickness	Non-woven ASTM D1777 Falling Head Test ASTM D751	geotextile fabric oz./sq. yd gpm/sq.ft lbs. in.	4.3 (min) 120 (min) 60 (min) 0.8 (min)

6. Reinforced Silt Fence as described in Specification Section 7.504.

C. Construction Method

- 1. The area under excavation shall be cleared, grubbed and stripped of any vegetation and root mat. The pool area shall be cleared.
- 2. Place the filter cloth in the bottom of the pool.
- 3. Place the rip- rap over the cloth as shown on the Contract Drawings.
- 4. Place the hay bales and sand bags in a single row, with ends of adjacent bales and bags tightly abutting one another. Refer to the Contract Drawings.
- 5. Wrap the perforated, corrugated pipe with the filter cloth and place it where is shown on the Contract Drawings.
- 6. The structure shall be inspected after each rain and repaired as needed.

D. <u>Measurement and Payment</u>

The quantity to be paid for under this item shall be the number of sediment traps with filters 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 sand bags, reinforced silt fence hay bales, filter cloth, pipe and rip-rap and sediment filter which together make up the Sediment Trap shall be measured as <u>one</u> erosion and sediment control feature.

The contract price per unit for sediment traps with filters shall be as indicated on the BID SCHEDULE OF PRICES Item No. BMP-7.506A. The bid price shall be a unit price per sediment trap 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.

7.507

SEDIMENT FILTER

NO TEXT ON THIS PAGE

7.508

SEDIMENT BASIN

NO TEXT ON THIS PAGE

7.509A STABILIZED CONSTRUCTION ENTRANCE

A. <u>Description of Work</u>

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 priorto 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. Traprock use 1-1/4" traprock concrete equivalent.
- 4. Thickness not less than six (6) inches for traprock.
- 5. Width shall be twelve (12) 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	125 lbs.
Equivalent opening size	40-80 mm

Filter cloth shall be Trevira Spunbound 1135, Mirafi 600x, 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 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 gravel 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 traprock can stay in place for use in accessways. (See specification for accessways.)

D. No Separate Payment

No separate payment will be made for the work of furnishing the material, labor and equipment necessary to construct the stabilized construction entrance in accordance with the plans and specifications and the direction of the Engineer. Separate payment will however be made for all trees removed during the construction of the stabilized construction entrance. Payment for tree removal shall be in accordance with the Detailed Specifications for Tree Removal and Disposal.

7.510 PORTABLE SEDIMENT TANK

A. <u>Description of Work</u>

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. <u>Design Criteria</u>

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. <u>Tank Specifications</u>

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. <u>Maintenance</u>

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 shall be disposed of in an approved location in which further sediment transport will not occur or as approved by the Inspector.

E. <u>Measurement and Payment</u>

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

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7.512 <u>DIRTBAG</u>

A. <u>Description of Work</u>

The Contractor shall furnish all materials, labor and equipment necessary to install the Dirtbags specified herein and as shown on the Contract Drawings.

Dirtbag is a fabric bag through which sediment laden water is pumped to trap and retain sediment. The Dirtbag is available from Erosion Control Technologies, Inc., ACF Environmental, or approved equal. The purpose of the Dirtbag is to prevent the silting of wetlands by trapping and retaining sediment prior to pumping the water to drainage ways, surrounding properties, and storm sewers.

B. <u>Location</u>

The Dirtbag shall be added to the portable sediment tank at the tanks discharge point. The Dirtbag can either be placed within the sediment trap or sediment basin near the inlet so that effluent from the bag flows into the trap or basin. This will serve to reduce the amount of sediment that enters the trap/basin, and provide for effective collection and disposal of sediment.

C. <u>Specifications</u>

<u>Properties</u>	Test Method	<u>Units</u>	Woven 2016	Nonwoven		
				<u>4551</u>	<u>4553</u>	<u>4555</u>
Weight	ASTM D-3776	oz./yd	8	6	8	10
Grab Tensile	ASTM D-4632	lbs.	300	150	200	270
Puncture	ASTM D-4833	lbs.	120	90	130	150
FlowRate	ASTM D-4491	Gal/Min/ft ²	40	130	80	70
Permitivity	ASTM D-4991	sec ⁻¹	0.55	1.9	1.5	1.3
UV Resistance	ASTM D-4355	%	80	70	70	80

D. <u>Methods/Maintenance/Disposal</u>

The flow pumped to the dirtbag should not exceed a rate of 750 gallons per minute, or as directed by the engineer.

Dirthags shall be replaced when they observed to be half full or as directed by the engineer.

The Contractor shall be responsible for the disposal of the Dirtbag off-site.

E. <u>Measurement and Payment</u>

The quantity to be paid for under this time shall be the number of Dirtbags 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 each Dirtbag shall be as indicated on the BID SCHEDULE OF PRICES, Item No. BMP-7.512. The bid price shall be a unit price per Dirtbag 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.

BMP-247

PERIMETER SITE SECURITY/ACCESS CONTROL MEASURES

7.600 WORK INCLUDED

Under Perimeter Site Security and Access Control Measures, 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.

Section Number	<u>Title</u>
7.601B	Galvanized Steel "W" Beam Guide Rail and
	Guide Rail Gate
7.602	Boulder Provision and Placement
7.603	Fixed and Removable Steel Pipe Bollards
7.604	Black Chain Link Fence
7.605	Sign Installation on Steel Rail Posts
7.606	Permanent Access Way
7.607	Temporary Herbivore Exclusion Fence
7.613	Split Rail Fence
7.622	Forebay Micropool Sediment Clean-out
	Indicator

* * * * *

7.601B GALVANIZED STEEL "W" BEAM GUIDE RAIL AND GUIDE RAIL GATE

A. <u>Description of Work</u>

Under this item, the Contractor shall furnish and install galvanized steel W beam guide rail in accordance with the plans, specifications and directions of the Engineer. For galvanized steel W beam guide rail details refer to the New York State Department of Transportation (NYSDOT) standard sheet 606-07.

The Contractor shall verify in the field the locations and quantities of new galvanized W beam guide rail to be installed as well as any other pertinent information regarding existing underground utilities, and shall mark in the field all existing subsurface utilities within the area of installation.

B. <u>Materials</u>

- a. <u>Guide Rail</u>: Guide rail shall be "W" beam type, meeting NYSDOT specifications 710-14 and 710-20.
- b. <u>Detail</u>: Materials shall conform to NYSDOT sheet 606-07.
- c. Gate: The gate shall be a swing type made from No. 12 gauge galvanized steel with a welded ½" center braces at the mid span and at the end of the gate. The gate shall be 12' 0" in length. The gate shall swing outwards and have two (2) heavy duty steel hinges each with axial capacity greater than 1000 lb and a radial capacity greater than 1500 lb. The hinges shall be welded to ½" galvanized angle.

The gate is also to have a steel hasp that secures to a steel welded loop on the post. Slot in hasp shall be oversized to allow for misalignment.

One (1) heavy duty steel gate caster with a six inch (minimum) wheel shall be furnished for each gate. The gate caster shall be the Polyurethane Gate Caster as manufactured by Caster City of Las Vegas, Nevada or approved equal. The caster shall be spring loaded and have a minimum spring deflection of 0.75 inches. The load capacity of the caster shall be a minimum of 700 lb. The non-metal wheel shall be on a swivel and have a capacity equal to or greater than that of the selected caster. The caster shall be bolted with 3/8" stainless steel bolts (ASTM F593) and nuts (ASTM F594) onto a vertical steel beam that is fastened to the "W"- beam. The mounted caster shall be positioned such that the spring compresses as the caster moves up to the high point of the gate's swing path.

Four (4) padlocks shall be furnished for each gate. The padlocks shall be American No. 5571 as manufactured by American Lock Company of Crete, Illinois (871-361-1040) or approved equal. All padlocks shall be keyed alike with two (2) inch width by three-quarter (3/4) inch thick brass body, maximum security, five (5) pin tumblers with hardened alloy steel chrome plated shackle no less than three-eighths (3/8) inch diameter and two (2) inch clearance (elongated shackle). The locks shall be keyed for NYC Fire Department No. 1620 keys. The Contractor shall furnish two (2) keys for each padlock.

C. <u>Shop Drawings</u>

The Contractor shall prepare and submit shop drawings to the Engineer for approval. No installation work shall begin until said approval has been obtained. Drawings shall show the spacing of posts, all necessary marking and dimensioning, and the details of fabrication and geometry of the special rail elements.

The Contractor shall be responsible for the proper fit of all components and completed installations.

D. <u>Site Preparation</u>

The area shall be cleaned and grubbed of all weeds and plant material under 6" in caliper only as necessary to install the new work by the Contractor. Wherever possible, trees are to remain. If the Engineer determines that plant material over 6" in caliper must be removed, the Contractor will perform this work under a separate item. If mounds of trash or dumped debris are present, the Contractor will be required to remove whatever is necessary for implementation of the new work. Precautions shall be taken by the Contractor to insure that all existing utilities and structures are safeguarded against injury. Any damage incurred shall be made good by the Contractor at no cost to the City.

E. Erection

Posts shall be set as shown on the plans or as directed by the Engineer, true to line and grade. The sections shall be erected in such a manner as to produce a smooth, continuous rail with the top about 29 inches above finished grade. Lap splices shall be lapped in the direction of traffic. Bolts shall be drawn tight and shall extend 3 to 2 inch beyond the nuts unless otherwise permitted.

Vertical Obstructions: The guide rail shall be interrupted for all vertical obstructions, including trees, clumps of trees, utility poles, fire hydrants and any other elements as determined by the Engineer. The Contractor shall

allow a 1'-0" space on either side of the vertical element from the end of the appropriate <u>terminal section</u>.

The beams shall be spliced at or near each post by lapping or by butt joints with suitable splice plates allowing one-eighth (1/8) inch for change in temperature. Supporting posts shall be spaced not greater than twelve feet-six inches (12'-6") center to center. The splice plates shall make contact with the beams throughout the spliced area. Bolt holes in the beam at the post bolt and elsewhere as necessary shall be enlarged or slotted to permit expansion and contraction and to facilitate erection.

Posts shall be driven vertically plumb to the required depth in such manner and by such means as to insure no damage to the galvanized surface.

Water jetting in driving posts will not be permitted. The driving shall be accomplished with approved equipment and methods that will leave the posts in their final position, free of any distortion, burring or other damage. When posts are driven through asphalt concrete or a bituminous treated material, the Contractor shall take care to prevent damage to the paved or treated areas. Any voids caused by driving the posts shall be filled and compacted with bituminous material as approved by the Engineer.

F. <u>Terminal Sections</u>

Each end of every beam rail installation shall be fitted with an end section in the manner indicated on the plans. Each end section shall be made of the same material as that used in the construction of the beam rail. Where terminal section is not specified in plans, a single buffer end section shall be used.

G. <u>Concrete Anchor/Anchorage Unit</u>

Concrete anchor/anchorage unit shall be installed only as required by NYSDOT as shown on the Contract Drawings.

H. Restoration

Upon completion of the installation of the guide rail system components, the Contractor shall restore the area to the original state in which he/she found it. This may require the Contractor to repave, reseed and mulch all areas disturbed by the guide railing installation, including the areas adjacent to the anchor unit installation.

I. Measurement and Payment

The quantity to be measured for payment under this section shall be the total linear feet measured along the axis of the railing, from end of cover to end

of cover, furnished and installed in accordance with the plants, specifications and directed by the Engineer.

Terminal sections of various kinds, as required by the plans and approved by New York City Department of Transportation, shall be included in the linear foot price.

The contract price per linear foot for Galvanized Steel W Beam Guide Rail shall be as indicated on the BID SCHEDULE OF PRICES, Item and BMP-7.601-B. The bid price shall constitute full compensation for all labor, materials, equipment and incidental expenses necessary the work including site restoration, minor pavement restoration, hardware splice plates and other incidental work necessary or required to complete the work in accordance with the plans and specifications to the satisfaction of the Engineer, except concrete anchor. If required, the costs for all labor, materials and equipment required for the anchor shall be deemed included in the price bid under DETAILED SPECIFICATIONS FOR CONCRETE. (Anchorage unit, steel rail and posts and swing gate are considered part of the linear foot price for this item).

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7.602 BOULDER PROVISION AND PLACEMENT

A. <u>Description of Work</u>

Under this item, the Contractor shall furnish all material, labor and equipment necessary to place boulders throughout the contract area in accordance with the contract drawings and specifications as directed by the Engineer. In addition, the contractor will also furnish and deliver boulders as directed by the Engineer.

B. <u>Materials and Construction Methods</u>

Boulders are stones with a diameter between 36" to 42" or 42" to 48" or as shown in the Contract Drawings.

Unless otherwise directed, the Contractor shall excavate a depression as directed by the Engineer prior to setting each boulder in place, in order to achieve a more natural appearance.

The Contractor shall carefully protect all trees, shrubs and other growth to remain and shall be liable for all damages to property caused by boulder placement operations. All trees, plants and other property damaged by boulder placement operations shall be replaced or restored to their original condition to the satisfaction of the Engineer at no additional cost to the City.

- 1. Perimeter Boulder Placement: Boulders shall be placed along portions of the site perimeter to secure accessible segments. Boulders shall be set roughly parallel to the edge of road. Boulder locations shall be worked into and around existing plantings and natural features; any conflicts shall be brought to the attention of the Engineer prior to boulder placement. All boulder locations shall be marked out and shall be approved by the Engineer prior to placement.
- 2. <u>Clump/Gap Design:</u> Boulders shall be laid out roughly parallel to the edge of road, between two (2) feet and six (6) feet from road edge. Boulders shall be set in groups or "clumps" where vehicular accessibility into site exists as directed by the Engineer. Stone quantities per clump shall range between three (3) and eight (8). The groupings shall be connected by boulders placed in a single row between the clumps, hence forming "gaps". Existing natural features and vegetation located along the site perimeter shall also be incorporated as gaps. Spaces between boulders or between incorporated trees and boulders shall not exceed four (4) feet.
- 3. Single Row Design: Boulders shall be laid out roughly parallel to the edge of road, between two (2) feet and four (4) feet from road

edge. Boulders shall be set in a single row. Spaces between boulders or between incorporated trees and boulders shall not exceed four (4) feet.

- 4. Stream Placement: Boulders are to be sporadically placed in and along the streams according to the drawing and as per the Engineer.
- 5. Cascade Perimeter: Boulders are placed in a row along the perimeter of the granite cascades as set and spaced according to the drawings and as per the Engineer.

Boulders shall be set in locations where they will achieve the intended design function, and shall be placed so as to harmonize with existing natural features and appear naturally set. All boulder locations shall be approved by the Engineer prior to placement.

C. Delivery

The Contractor shall furnish and deliver unused boulders to the following address:

DEP Staten Island Bluebelt 182 Joline Avenue Staten Island, NY 10307 718-984-0489 718-984-4430 (fax)

D. Measurement and Payment

The quantity to be paid for under this item shall be the number of approved boulders placed and incorporated in the completed work in accordance with the plans and specifications to the satisfaction of the Engineer.

The contract price per boulder furnished and installed shall be as indicated on the BID SCHEDULE OF PRICES Item No. BMP-7.602. The bid price shall be a unit price per boulder 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.

The contract price per boulder furnished and delivered shall be as indicated on the BID SCHEDULE OF PRICES Item No. BMP-7.602A. The bid price shall be a unit price per boulder and shall include the cost of all labor, materials and equipment necessary to furnish and deliver boulders, in accordance with the plans and specifications to the satisfaction of the Engineer.

SE-803

<u>DIVISION VII - DETAILED SPECIFICATIONS - CONTRACT SE-803</u>

7.603 FIXED AND REMOVABLE STEEL PIPE BOLLARDS

A. <u>Description of Work</u>

Under this item, the Contractor shall furnish, erect and powder coat steel pipe bollard, fixed or removable in accordance with the plans, specifications and directions of the Engineer.

B. Materials

Steel pipe bollard shall be as manufactured by All City Play Equipment, Brooklyn, New York; Boundary Fence, Jamaica, New York; TrafficGuard Direct, Geneva, Illinois or approved equal.

All fittings and hardware shall be of the materials listed in the following schedule:

Post Caps:

Malleable iron - 3/16" thick

Drive Pins and Set Screws:

Stainless steel

Flange:

Pressed steel

"U" Bolts:

Pressed steel, extra heavy

Malleable iron castings shall be hot dipped galvanized in accordance with ASTM A153 and powder coated per this Specification.

Pressed steel fittings and appurtenances shall be powder coated and hot dipped galvanized in accordance with ASTM A123.

Posts: Posts shall be extra heavy galvanized steel pipe, 3.5" O.D. and shall conform to ASTM A120, Schedule 80 except that pipe shall be unthreaded and untested for water pressure.

Sleeves: Sleeves shall be standard weight galvanized steel pipe, 4" I.D. and shall conform to ASTM A120, Schedule 40 except pipe shall be unthreaded and untested for water pressure.

Padlocks: Four (4) padlocks shall be furnished for each removable bollard. The padlocks shall be American No. 5571 as manufactured by American Lock Company of Crete, Illinois; Yale Global-USA of Lenoir City, TN; The Wilson Bohannan Lock Company of Marion, OH; or approved equal. All padlocks shall be keyed alike with two (2) inch width by three-quarter (3/4) inch thick brass body, maximum security, five (5) pin tumblers with hardened alloy steel chrome plated shackle no less than three-eighths (3/8) inch diameter and two (2) inch clearance (elongated shackle). The locks shall be keyed for NYC Fire Department No. 1620 keys. The Contractor shall furnish two (2) keys for each padlock.

C. Erection

The posts for fixed bollards shall be set in concrete footings as shown on the plans or as directed by the Engineer. Once erected, steel pipe of the fixed bollard shall be filled with average concrete. The sleeves for removable bollards shall be set in concrete footings as shown on the plans or as directed by the Engineer.

All posts and sleeves shall be set plumb and true to line and grade. Any post and sleeve not set true to line and grade shall be removed and replaced at the Contractor's expense. Bending posts to make them plumb will not be permitted.

D. Powder Coating

The galvanized steel pipe and fittings shall be powder coated with TGIC-Polyester.

Galvanizing shall provide an acceptable substrate for applied powder coatings. No lacquer, urethane or other coatings which would prevent proper adhesion of powder coating shall be applied to the pipe and fittings.

The powder coating shall be applied to the galvanized pipe and fittings in such a manner that the coating will not peel off. Insure surfaces to be coated are clean and dry and free of grease, dust, rust, etc. All coated parts shall first receive phosphating and chromatizing treatments to improve the adhesion of the surface coating. Color to be black unless otherwise indicated on the plans.

The TGIC-Polyester shall be applied at a film thickness of 3 to 4 mils by electrostatic spray process and bake finished per manufacturer's directions. The TGIC-Polyester shall be applied without voids, tears or cuts that reveal the substrate and shall thoroughly adhere to the metal without peeling when scratched with a pick device or knife blade point.

Laboratory Tests for TGIC-Polyester Powder Coat: At the discretion of the Engineer, a sample TGIC-Polyester powder coated bollard shall be laboratory tested for bonding of the powder coating to the metal. Test shall be the Cross Hatch test per ASTM D3359, Method B. Failure to satisfactorily pass this test shall be a basis for rejection.

Touch-up and Repair: For minor damage caused by installation or transportation, clean damaged area, then:

1. On damaged galvanized surfaces, apply organic zinc repair paint complying with ASTM A780, then repair powder coating per number 2 below. Galvanizing repair paint shall have 65 percent zinc

by weight. Thickness of repair paint shall be not less than that required by ASTM A123.

2. On damaged powder coated surfaces, touch-up finish in conformance with manufacturer's recommendations. Provide touch-up such that repair is not visible from a distance of six (6) feet.

E. Submissions

Shop Drawings: Before the work is started, the Contractor shall submit shop drawings for approval by the Engineer.

F. Measurement and Payment

The quantity of Steel Pipe Bollard - Fixed and Steel Pipe Bollard - Removable to be paid for under these items shall be the total number furnished and installed in accordance with the plans, specifications and directions of the Engineer.

The contract price for steel pipe bollard fixed and removable shall be as indicated on the BID SCHEDULE OF PRICES, Item Nos. BMP-7.603A and BMP-7.603B, respectively. The bid price shall include the cost for all labor, material, equipment and incidental expenses necessary to complete the work, including excavation, average concrete and powder coating, all in accordance with the plans and specifications to the satisfaction of the Engineer.

7.604 <u>BLACK CHAIN LINK FENCE</u>

A. <u>Description of Work</u>

Under this item, the Contractor shall excavate and install concrete footings and furnish, paint and erect chain link fences and gates, in accordance with the Plans and Specifications and directions of the Engineer. For Black Chain Link Fence details, refer to Contract Drawings.

The black chain link fence shall be 6 ft high as specified in the Contract Drawings.

B. <u>Materials and Construction Methods</u>

1. <u>Excavation Procedures:</u> Excavation for the concrete footings for the chain link fence posts shall be defined as the removal of earth necessary to install the concrete footings for the chain link fence in accordance with the Plans and Specifications and as directed by the Engineer.

The Contractor shall place, compact and/or dispose of any excavated material as directed by the Engineer, this includes any materials deemed suitable for re-use on site.

- a. <u>Surplus:</u> All surplus materials not suitable for backfill shall be removed from the site and properly disposed of by the Contractor at no additional cost to the City.
- b. <u>Maintenance and Draining:</u> The Contractor shall keep all excavations for concrete footings in a dry condition and shall furnish all equipment and labor required to keep the excavations free from water, ice, or snow during construction.
- c. <u>Backfill:</u> Following inspection and approval of concrete footings for the chain link fence posts, the excavated voids around these masonry footings shall be backfilled with clean, excavated material tamped and rammed into place in layers not over six (6") inches in depth.

2. Concrete Footings:

a. <u>Concrete</u>: Concrete footings shall be furnished and placed as shown on the Plans or as directed by the-Engineer. Concrete for the footings shall conform to NYC Department of Transportation, Class B-32, Type II-A, air-entrained,

moderate sulphate resistant. Each batch shall contain a minimum of six (6) bags of cement per cubic yard of concrete, a maximum of 63" gallons of water per bag, and shall have a maximum three (3") slump. Each batch of concrete shall have a compressive strength of 3,000 psi. Large aggregate shall be limited to one (1").

- b. <u>Cement</u>: All cement used shall be Air Entraining Portland Cement, ASTM C175.
- c. <u>Forms:</u> The Contractor shall furnish and place forms for the concrete footings as required in order to successfully install the footings and shall remove them following curing as directed by the Engineer.
- d. <u>Curing</u>: All concrete footings shall be covered and kept moist during the curing process as directed by the Engineer.

3. Fence Parts:

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All fittings, hardware and equipment shall be designed to carry one hundred (100) percent overload.

Malleable Iron castings shall be hot-dipped galvanized in accordance with ASTM A153.

Wrought iron forgings and pressed steel fittings and appurtenances shall be hot dipped galvanized in accordance with ASTM A123.

All fittings, hardware and equipment shall be of materials listed in the following schedule:

Motorial

Fence Part	Material
Boulevards, Split Fittings	Malleable Iron or Pressed Steel 3/16"
	thick and End Clamps
Post Caps and Line Tops	Malleable Iron or Pressed
Couplings	Steel 3/16" thick
	Galvanized Steel Pipe - 1/8" thick
	with 1/4" Diameter Rivet
Bolts and Nuts	Galvanized Steel or Stainless Steel as
	indicated on plans
Tension Bars	1/4" x 3/4" Galv. Steel for 2" Mesh
Tension Bands	1/8" x 1" Pressed Steel

4. <u>Posts and Rails:</u>

Posts and Rails shall be of Type I or Type II specifications, as described below:

Type I - Posts and rails shall be standard weight galvanized steel pipe of the sizes shown on the plans and shall conform to ASTM F1083 Schedule 40. Posts and rails shall be galvanized in accordance with ASTM A123.

OR

Posts and rails shall be Type II, SS-40 steel tubing as manufactured by Allied Tube and Conduit Corp. of Harvey, Illinois, or approved equal. Tubing must conform to ASTM A569, cold rolled steel pipe and coated with a minimum of 0.9 ounces of zinc per square foot, a minimum of 15 micrograms of zinc chromate per square inch and a minimum of .3 mils cross link polyurethane acrylic exterior coating. Steel pipe supplied under this option shall be of the same outside diameter as Schedule 40 pipe and achieve a minimum yield strength of 50,000 psi.

5. Fabric:

Fabric shall be vinyl coated galvanized steel wire. The color of the vinyl coating shall be black.

Wire shall be of good commercial quality made in the open hearth or electric furnace and after manufacture shall have a minimum tensile strength of 78,000 psi.

Zinc for galvanized coating shall conform to ASTM B6, galvanized by the hot dipped process method, AISI, Type I, before vinyl coating. Coating shall be smooth.

Vinyl shall be polyvinyl chloride meeting the following requirements:

Specific Gravity shall be a minimum of 1.30 tested in accordance with ASTM D792.

Hardness shall have a minimum Durometer reading of A95 in accordance with ASTM D2240. Ultimate elongation shall be 275% in accordance with ASTM D412.

Tensile strength shall have a test minimum of 3,300 psi in accordance with ASTM D412.

Vinyl shall be a dense and impervious covering free of voids, having a smooth, lustrous surface without pinholes, bubbles or voids, rough or blistered surface.

6. Thickness of Fabric:

- a. Two Inch Mesh: Uncoated wire dimension shall be 0.148 inches n diameter (9 gauge). Zinc coating shall be 0.40 ounces per square foot of wire surface. Vinyl coating shall be not less than 0.022 inches.
- b. Ties: Tie-wire shall be three-sixteenth (3/16) inch diameter wrought aluminum alloy 1100-H16 wire. Ties shall be spaced fifteen (15) inches apart on rails and twelve (12) inches apart of posts. The ends of ties shall be wound in a telegraph twist two and one half turns.

7. Gates

- a. Fabrication and Materials
 - 1. All gates shall be of the swing type and shall comply with ASTM F 900.

Gate hinges shall be 180 degree heavy industrial, double clamping offset type. To hold the gate in the open or closed positions, each gate frame shall be provided with a keeper which automatically engages a gate shoe set in concrete. Gates shall have a drop latch with provision for a padlock.

Four (4) padlocks shall be furnished for each gate. The padlocks shall be American No. 5571 as manufactured by American Lock Company of Crete, Illinois (871-361-1040) or approved equal. All padlocks shall be keyed alike with two (2) inch width by three-quarter (3/4) inch thick brass body, maximum security, five (5) pin tumblers with hardened alloy steel chrome plated shackle no less than three-eighths (3/8) inch diameter and two (2) inch clearance (elongated shackle). The locks shall be keyed for NYC Fire Department No. 1620 keys. The Contractor shall furnish two (2) keys for each

padlock.

All gate frames shall have intermediate horizontal rails. Gate frames shall be of welded construction and shall be galvanized after fabrication. Single gates 6 feet wide or wider and double gates 12 feet wide or wider shall be provided with diagonal bracing in one direction, extending from top to bottom rail. The diagonal bracing shall be at least ½ inch in diameter and shall be provided with turnbuckles. The gate's fabric shall be polyvinyl chloride coated to match fence.

b. Adjustments

- 1. Gates: After repeated operation of completed installation equivalent to three days' use by normal traffic, readjust gates for optimum operation and safety.
- Lubricate operating equipment and clean exposed surfaces.

8. <u>Field Installation</u>:

The posts shall be set in holes which shall have been formed in the footings as shown on the Plans or directed by the Engineer. After the posts have been set in place and properly supported to hold them in line and grade, the resulting space shall be filled with a grout consisting of one (1) part cement and two (2) parts sand.

All end and corner posts shall have a 2" diameter brace rod and turn buckle.

Chain link fabric shall be attached to line and corner posts and top, intermediate and bottom rails. Posts shall be set plumb and true to line and grade. Any post not set true to line and grade shall be removed and replaced at the Contractor's expense. Bending posts to make them plumb will not be permitted.

The Contractor shall maintain the chain link fences during the life of the contract and shall repair and replace all members that are disturbed, damaged, or destroyed from any cause at no cost to the City.

Precautions shall be taken by the Contractor to protect all utilities, structures, adjacent trees, shrubs and natural features against damage or injury. Any damage or injury incurred shall be made good by the Contractor at no extra cost to the City.

a. Bolt Installation: The ends of all bolts shall be peened after tightening. Bolts which are installed six (6) feet or less above the grade shall not protrude more than 3" beyond the nut after tightening. All rough edges resulting from the cutting of bolts to achieve this requirement shall be filed smooth to the satisfaction of the Engineer.

9. <u>Submissions:</u>

- a. Paint Substitution: A written request for paint substitution must be submitted to the Engineer. Contractor shall submit this request, along with manufacturer's data sheets for approval, a minimum of two weeks prior to the intended date of paint application. All paint substitutes must be approved in writing prior to use.
- 10. <u>Certification:</u> The Contractor shall submit at his own expense a certification from the supplier for the following:
 - a. All castings are made from malleable iron.
 - b. All hot-dipped galvanized items have met the ASTM as indicated in these Specifications.
- 11. <u>Shop Drawings</u>: Before all work in the shop is started, the Contractor shall submit shop drawings for approval by the Engineer.
- 12. <u>Shipping Lists:</u> The shipping list for the materials furnished shall be endorsed with the manufacturer's voucher certifying that the materials used comply with these specifications.
- 13. <u>Clean-up and Removals</u>: After field installation is complete, the Contractor shall remove from the work areas any excess material, debris, litter, etc. used for or remaining from the chain link fence installation.

C. Measurement and Payment

The Contract price per linear foot for the Black Chain Link Fence shall be as indicated on the BID SCHEDULE OF PRICES, BMP -7.604-4 for 4 ft fence, BMP -7.604-6 for 6 ft fence and BMP -7.604-10 for 10 ft fence.

For Black Chain Link Fence Gates, the Contract price per each gate furnished and installed shall be as indicated on the Bid Schedule of Prices, BMP-7.604-G for 4 and 6-foot Black Chain Link Fence Gate and BMP-7.604-10G for 10-foot Black Chain Link Fence Gate. The bid price shall be a unit price per each gate furnished and installed and all other work incidental thereto in accordance with the plans and specifications to the satisfaction of the Engineer.

The unit price bid shall include the costs for all labor, material, equipment and incidental expenses necessary or required to complete the work in accordance with the plans and specifications to the satisfaction of the DEP Field Representative.

BMP-265

7.605 <u>SIGN INSTALLATION ON STEEL RAIL POSTS</u>

A. Description of Work

Under this item, the Contractor shall provide all labor, materials, equipment, testing and incidentals required to furnish and install the temporary signs on construction limit fence, new rigid aluminum permanent Bluebelt Identification signs and Adopt-A-Bluebelt signs on steel rail sign posts, and furnish and deliver replacement Bluebelt Identification signs as required in this Contract and in accordance with the plans, specifications and directions of the Engineer.

B. <u>Materials and Construction Methods</u>

All steel rail sign posts shall be rolled from material meeting ASTM A847 High Strength Low Alloy Steel Pipe and Tube, with a weathered steel finish.

All posts shall be of a uniform, modified, flanged channel section such that the area of contact between the post and the sign is symmetrical with the vertical axis of both the sign and posts. The posts shall be 2-3/8" round posts.

The length of each steel sign post shall be 14'.

The finished posts shall be machine straightened and have a smooth, uniform finish free from cracks, flaws, injurious seams, blisters, ragged, sharp and imperfect edges or other defects affecting strength, durability, or appearance.

All steel sign posts furnished under this Contract shall be packed and delivered in such a manner that no injury or defacement may occur to the finished unit.

C. Steel Rail Installation

The area for concrete footing shall be excavated to the dimensions shown on the drawings. The footing shall be dug with a power auger, post hole digger or as directed by the Engineer.

The steel railing sign post shall be set and centered in the hole, to the elevation shown on the drawings which shall have been previously excavated. After the post has been set and properly supported to hold it true and plumb, the hole shall be filled with concrete. The concrete footing for the steel rail sign post shall be constructed from 3,000 psi strength concrete.

The Contractor shall take every precaution to safeguard against damage or injury to all existing utilities, structures, adjacent trees, shrubs and natural features to remain. Any damage or injury incurred shall be remedied by the Contractor at no cost to the City and to the satisfaction of the Engineer.

D. <u>Signage Installation</u>

Following installation of the steel rail sign posts, the Contractor shall install the rigid aluminum BMP Identification Signs on the steel rail sign posts in accordance with the contract drawings.

Two (2) sets of replacement fasteners shall be supplied to the Bluebelt Field Office located at 182 Joline Avenue for each sign installed.

The Contractor shall remove any excess material, debris, litter, etc., used for or remaining from the installation work area.

E. Furnish Temporary (During Construction) Flexible Aluminum Signs, 0.020" Gauge Aluminum & Install on Construction Limit Fence

1. <u>Description of Work</u>

Under this item, signs furnished shall be new aluminum, not previously used as a sign, with white vinyl sheeting. The appropriate lettering and graphics shall be silk screened onto the vinyl sheeting.

The Contractor shall provide all labor, materials, equipment, testing and incidentals required to furnish new signs and install the temporary (during construction) flexible aluminum signs on the construction limit fence and/or reinforced silt fence, in accordance with the plans, specifications and directions of the Engineer. The Contractor will be responsible for maintaining the signs on the fencing for as long as the adjacent street is an active construction site. In order to do this, the Contractor will replace as necessary. For each sign installed, the Contractor will supply one replacement sign to the DEP Bluebelt office located at 182 Joline Avenue. All leftover signs after the project is over will also be delivered to 182 Joline Avenue.

2. Materials and Methods

Signs shall be made of flat, unpainted aluminum, Alloy 6063-T5, 0.020" thick. The sign dimensions shall be 14" x 8-1/2". Each sign shall be cut from one piece of aluminum, and shall be free of wind buckle, dents, twists. The face of each sign shall be substantially a

plane surface. All edges and corners shall be filed or ground smooth, so that the sign shall be free from sharp edges and burrs. Welded or jointed signs will not be accepted. The Contractor shall install signs every fifty (50) feet on reinforced silt fence and on construction limit fence.

Signage shall be as manufactured by the Walter Sign Corporation, 36-35 36th Street, Long Island City, N.Y. 11106, Telephone: (718) 784-7777, or Sign Designers of New York, Inc., 33-26 Northern Boulevard, Long Island City, N.Y., Telephone: (718) 392-0779 or approved equal.

3. <u>Cleaning Treatment</u>:

Each sign shall be prepared by the manufacturer as follows:

- a. Initial cleaning of all blanks shall be by complete submersion in a three percent (3%) solution of an inhibited alkaline cleaner at 160 to 180 degrees Fahrenheit for three (3) minutes, followed by a rinse with clean, cold running water. Alternatively, a grease solvent such as Naptha or Trichlorethylene may be used, when the application is in accordance with the directions of the manufacturer of the cleaner product.
- b. Secondary cleaning shall follow preliminary cleaning by immersion for one (1) minute in circulating hot water at 180 degrees Fahrenheit. Each sign shall then be dried by forced warm air. Alternatively, the clean sign blank may be prepared by the process conforming to military specifications MIL-C-5541, such as Alodine or approved equal. If a chemical conversion coating is employed, the coating shall be free of all powder residue.
- c. Following preliminary cleaning, the sign blanks shall be handled only by mechanical means or with gloved hands.
- d. All aluminum sheets shall be guaranteed to maintain flatness when exposed to 340 degrees for ten (10) minutes.

4. Vinyl Sheeting

Vinyl sheeting shall be either Type I, Class I, pressure sensitive adhesive or Type III, Class I, heat activated adhesive conforming to Military Specifications MIL-M-43719B.

Apply the vinyl sheeting to the treated sign in accordance with the manufacturer's specifications.

Durability of sheeting shall provide for a minimum of 10 years of useful life in the climatic conditions existing in New York under normal, vertical, exterior street sign exposure when applied in accordance with the manufacturer's recommendations.

5. <u>Lettering</u>:

The signs shall be inscribed by means of a silk screen process with the borders, lettering, and graphics as indicated on the Contract Drawings.

When vandal resistant inks, compatible with the vinyl sheeting, are available and are recommended by the sheeting manufacturer, these inks shall be used. Vandal resistant inks shall be applied in accordance with the manufacturer's specifications.

The colors shall be blue and green lettering and graphics on a white baked enamel background in accordance with the Contract Drawings and to the satisfaction of the Engineer. Colors shall correspond as follows: Green PMS 355 and Blue PMS 287.

Lettering shall be the font styles and point sizes as represented on the Contract Drawings or approved substitute fonts and sizes.

6. Sign Layout

Layout of the sign shall be in accordance with the Contract Drawings and to the satisfaction of the Engineer.

7. Finish

The finished sign shall be clear coated, with a Finishing Clear, unless the manufacturer of the sheeting recommends that the sign not be coated. The Finishing Clear shall be compatible with the sheeting and applied in accordance with the specifications of the manufacturer of the vinyl sheeting. When clear coating is optional the sign shall be clear coated. When the manufacturer of the sheeting recommends a vandal resistant Finishing Clear or vandal overlay, the Finishing Clear or overlay shall be used and applied in accordance with the manufacturer's specifications. Vandal resistant inks will not be required when vandal resistant Finishing Clear or overlay is used.

The finished sign shall be uniform in color and tone, with sharply defined edges and borders and without blemishes on the sign background that will affect sign use.

The sign surface shall be readily refurbished by cleaning and clear overcoating in accordance with the manufacturer's recommendations.

8. <u>Provision of Sign Mock-Up</u>

The Contractor shall provide one full-size sign as a mock-up, to the Engineer for approval, prior to production of the required number of signs. The Contractor shall not begin sign production until the Engineer has given approval in writing. Any corrections required to make the mock-up in conformance with these specifications and Contract Drawings shall be done at the Contractor's expense.

9. Time of Performance

The temporary flexible aluminum sign will be installed on the snow fencing with hay bales before sewer construction proceeds in the adjacent street or not later than fifteen (15) days after the date of the Notice to Proceed letter sent by the Engineer whichever is first.

10. Measurement and Payment

The quantity of 0.020" Gauge Aluminum Signs to be paid for under this item shall be the total number of signs fabricated and installed at the designated locations or delivered to DEP, in accordance with the plans, specifications and directions of the Engineer.

The contract price per 0.020" Temporary Sign shall be as indicated on the BID SCHEDULE OF PRICES Item No. BMP-7.605-B. The unit price shall include the costs of all labor, materials, equipment and incidental expenses necessary or required to complete the work in accordance with the plans and specifications and to the satisfaction of the Engineer.

F. Furnish Permanent Bmp Id, Watershed ID, and Adopt-A-Bluebelt Rigid Aluminum Signs, Furnish Permanent Watershed Id Replacement Signs

1. Description of Work

Under this item, signs furnished shall be new 0.080" gauge aluminum, not previously used as a sign, with white vinyl sheeting.

The appropriate lettering and graphics shall be silk screened onto the vinyl sheeting.

The Contractor shall provide all labor, materials, equipment, testing and incidentals required to furnish and store new BMP Identification, Watershed Identification and Adopt-A-Bluebelt signs in accordance with the plans, specifications and directions of the Engineer. The Contractor shall supply five replacement Watershed Identification signs to the DEP Bluebelt Field Office, located at 182 Joline Avenue. No Adopt-A-Bluebelt or BMP Identification replacement signs shall be provided. Replacement signs shall be provided to at no additional cost to the City.

2. Materials and Construction Methods

Signs shall be made of flat, unpainted Aluminum, Alloy 6061-T6, 0.080" thick. The Adopt-A Bluebelt signs shall be 24" x 38.4". The BMP ID and Watershed ID signs shall be 12" x 15". Each sign shall be cut from one piece of aluminum, and shall be free of wind buckle, dents, and twists. The face of each sign shall be substantially a plane surface. All edges and corners shall be filed or ground smooth, so that the sign shall be free from sharp edges and burrs. Welded or jointed signs will not be accepted. The sign blanks shall be cut and drilled in accordance with the Contract Drawings. Holes shall be drilled in the following manner: each rigid aluminum sign shall receive a 5/16" diameter hole at the centerline of the sign 0.25" from the top and a 5/16" diameter hole at the centerline of the sign 0.25" from the bottom of the sign. To permit interchangeability of signs on existing and new sign posts, the distance between drilled holes must be accurately maintained.

Signage shall be as manufactured by Sign Designers of New York, Inc., 33-26 Northern Boulevard, Long Island City, N.Y., Telephone: (718) 392-0779, or Walter Sign Corporation, 36-35 36th Street, Long Island City, N.Y. 11106, Telephone: (718) 784-7777, or approved equal.

Signs shall be affixed to the sign post using two center mounted sign brackets, with a 4 ½" sign support, as per Contract Drawings. All hexbolts shall be 5/16" diameter, stainless steel material.

3. Cleaning Treatment

Each sign shall be prepared by the manufacturer as follows:

- a. Initially, clean all blanks by complete submersion in a three percent (3%) solution of an inhibited alkaline cleaner at 160 to 180 degrees Fahrenheit for three (3) minutes, followed by a rinse with clean, cold running water. Alternatively, a grease solvent such as Naptha or Trichlorethylene may be used, when the application is in accordance with the directions of the manufacturer of the cleaner product.
- b. Secondary cleaning shall follow preliminary cleaning by immersion for one (1) minute in circulating hot water at 180 degrees Fahrenheit. Each sign shall then be dried by forced warm air. Alternatively, the clean sign blank may be prepared by the process conforming to military specifications MIL-C-5541, such as Alodine or approved equal. If a chemical conversion coating is employed, the coating shall be free of all powder residue.
- c. Following preliminary cleaning, the sign blanks shall be handled only by mechanical means or with gloved hands.
- d. All aluminum sheets shall be guaranteed to maintain flatness when exposed to 340 degrees for ten (10) minutes.

4. <u>Vinyl Sheeting</u>:

- a. Vinyl sheeting shall be either Type I, Class I, pressure sensitive adhesive or Type III, Class I, heat activated adhesive conforming to military specifications MIL-M-43719B.
- b. Apply the vinyl sheeting to the treated sign in accordance with the manufacturer's specifications.
- c. Durability of sheeting shall provide for a minimum of 10 years of useful life in the climatic conditions existing in New York under normal, vertical, exterior street sign exposure when applied in accordance with the manufacturer's recommendations.

5. Lettering

a. The signs shall be inscribed by means of a silk screen process with the borders, lettering, and graphics as indicated on the Contract Drawings.

- b. When vandal resistant inks, compatible with the vinyl sheeting, are available and are recommended by the sheeting manufacturer, these inks shall be used. Vandal resistant inks shall be applied in accordance with the manufacturer's specifications.
- c. For all signs, the colors shall be blue lettering and graphics on a white baked enamel background except where indicated, in accordance with the Contract Drawings and to the satisfaction of the Engineer. Colors shall be Blue PMS 287.
- d. Lettering shall be the font styles and point sizes as represented on the Contract Drawings or approved substitute fonts and sizes.

6. Sign Layout

a. Layout of the sign shall be in accordance with the Contract Drawings and to the satisfaction of the Engineer.

7. Finish

- a. The finished sign shall be clear coated, with a Finishing Clear, unless the manufacturer of the sheeting recommends that the sign not be coated. The Finishing Clear shall be compatible with the sheeting and applied in accordance with the specifications of the manufacturer of the vinyl sheeting. When clear coating is optional the sign shall be clear coated. When the manufacturer of the sheeting recommends a vandal resistant Finishing Clear or vandal overlay, the Finishing Clear or overlay shall be used and applied in accordance with the manufacturer's specifications. Vandal resistant inks will not be required when vandal resistant Finishing Clear or overlay is used.
- b. The finished sign shall be uniform in color and tone, with sharply defined edges and borders and without blemishes on the sign background that will affect sign use.
- c. The sign surface shall be readily refurbished by cleaning and clear overcoating in accordance with the manufacturer's recommendations.

8. <u>Provision of Sign Mock-Up</u>:

The Contractor shall provide one full-size sign as a mock-up, to the Engineer for approval, prior to production of the required number of signs. The Contractor shall not begin sign production until the Engineer has given approval in writing. Any corrections required to make the mock-up in conformance with these specifications and Contract Drawings shall be done at the Contractor's expense.

9. <u>Delivery of Replacement and Left-Over Signs</u>

After all signs required for this project are installed, the Contractor shall deliver all replacement and left-over signs to the following location:

DEP Staten Island Bluebelt Field Office 182 Joline Avenue Staten Island, New York 10307 718-984-0489 718-984-4430 (fax)

The signs shall be packaged so as to prevent scratching, bending or other damage while they are being shipped and stored. DEP reserves the right to inspect and reject any damaged signs. The Contractor will supply five replacement Watershed Identification signs to the DEP Bluebelt Field Office. No BMP Identification or Adopt-A-Bluebelt replacement signs shall be provided.

10. Time of Performance:

The Contractor shall supply all the signs not later than fifteen (15) days after the date of the Notice to Proceed Letter sent by the Engineer.

11. Packaging and Storage:

The signs shall be packaged and stored so as to facilitate their proper handling and storage until such time the Contractor can install them on the steel rail sign posts.

12. Measurement and Payment

The quantity of 0.080" Gauge Aluminum Signs to be paid for under this item shall be the total number of signs, fabricated and installed on steel rail posts or delivered in accordance with the plans, specifications and directions of the Engineer. All extra signs not installed shall be delivered to the DEP Bluebelt Field office on Staten Island at no extra cost to the City.

The contract price per 0.080" Permanent Sign installed on Steel Post shall be as indicated on the BID SCHEDULE OF PRICES: Item No. BMP-7.605-A.

The contract price per replacement 0.080" Permanent Sign furnished and delivered shall be as indicated on the BID SCHEDULE OF PRICES as follows:

BMP-7.605A	PERMANENT	SIGNS ON STE	EL RAIL P	OST
BMP-7.605B	0.020" TEMPO	ORARY SIGNS		

The unit price shall include the costs of all labor, materials, equipment, installation and incidental expenses necessary or required to complete the work in accordance with the plans and specifications and to the satisfaction of the Engineer.

7.606 <u>PERMANENT ACCESSWAY WITH CONCRETE PAVERS OR</u> <u>GRAVEL</u>

A. Description of Work

The Contractor shall provide all labor, materials, tools and equipment necessary to complete the permanent accessways as shown in the Contract Drawings and as directed by the Engineer.

B. Materials and Methods - Concrete Pavers

1. Pavers

The Permanent Accessway shall be constructed using concrete grid pavers. Unless directed by the Engineer, materials and methods shall conform to ICPI Technical Specification #8. The pavers shall be 23 5/8" x 15 ¾". They shall be made in a grid-like pattern 3 1/8" in height. The Pavement Accessway edges shall be secured with a concrete curb. The pavers and adjoining curb shall be earthtone brown in color. The pavers shall be fabricated of Portland Cement Type II or III fine and course aggregates (ASTM C-33-61) utilizing a steel mesh-6"/6" x 8/8 gauge with an air-entraining agent between 4%-6% (ASTM C-173) achieving a concrete strength of 5,000 psi at 28 days (ASTM C-39-49) and a maximum water absorption of 5% (ASTM C-97). The concrete grid pavers shall be manufactured by Metromont Materials Company or approved equal.

2. Crushed Stone

The crushed stone layer shall consist of 1/2" to 1" stone, with gradation conforming to ASTM D2940.

3. Sand

Sand bedding shall consist of concrete sand, with gradation conforming to ASTM33(6).

4. Filter Cloth

Filter cloth underliner shall have the following minimum properties:

Grab tensile strength	220 lbs.
Elongation at failure	220%
Mullen Burst Strength	430%
Puncture Strength	125 lbs.
Equivalent opening size	40-80 mm

Filter cloth shall be Mirafi 600x, or approved equal.

5. Testing

The pavers should be tested and confirm to the following tests:

Compression/Load Test (ASTM C 67 - Adapted)

Samples are to be conditioned at 70°F (21°F) and 50% relative humidity room for 24 hours prior to testing. Cut samples of 12" x 12" were used for this test.

A. Load Tests - Quarter of a full Panel.

Sample No.	Effective Area (sq.in)	Maximum Load (lbs.)	Load Strength Per Unit (PSI)
1	49.00	287,000	5,857
2	49.00	296,000	6,041
3	49.00	322,000	6,571
		Average:	6,156

B. Compression Tests - Single Block Unit

Sample No.	Effective Area (sq.in)	Maximum Load (lbs.)	Compression Strength Per Unit (PSI)
1	12.25	68,500	5,592
2	12.25	65,000	5,306
3	12.25	70,000	5,714
		Average:	5,537

6. <u>Installation Procedure</u>

a. Prior to placing a dense-graded base, the soil subgrade or approved fill should be uniformly compacted to at least 95% of standard Proctor density per ASTM D698(4). Remove from the setting bed rock or other materials which would create uneven bearing.

- b. Install concrete curb along the perimeter outlining the entire area to receive crushed stone and pavers.
- c. A 12 inch deep crushed stone base should then be installed, compacted to a minimum of 98% standard Proctor density (4).
- d. Place sand in a 2" compacted layer over the base to present a true and even grade over entire area to receive pavers.
- e. Set pavers and line up to abut.

7. Void Filler

Thoroughly mix topsoil with fertilizer and spread loosely to fill voids in pavers. Water with a mist spray to settle. Add additional topsoil mix to bring the topsoil flush with top of the paver. Seed at slightly less than normal rate. When grass is 2 1/2" high, cut to 1 3/4".

C. <u>Material and Methods – Gravel</u>

The specifications for permanent gravel accessway shall be the same as those for stabilized construction entrance of this Detailed Specification Section 7.509A.

D. <u>Measurement and Payment</u>

The contract price per square foot for Permanent Accessway with Concrete Pavers shall be as indicated on the BID SCHEDULE OF PRICES Item No. BMP-7.606A for gravel and Item No. BMP-7.606B for pavers. No separate payment shall be made for concrete curbing or sub base material used for pavers. The unit price per square foot shall include all labor, materials, equipment and incidental expenses necessary to complete the work in accordance with the plans and specifications to the satisfaction of the Engineer.

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7.607 <u>HERBIVORE EXCLUSION FENCE</u>

A. <u>Description of Work</u>

The Contractor shall furnish all materials, labor, and equipment necessary to install the herbivore exclusion fence specified herein and as shown on the Contract Drawings, including all incidental and appurtenant work required for a complete job. The herbivore exclusion fence is used to protect the newly installed plant materials from damage caused by herbivores.

The herbivore exclusion fence shall be maintained in good condition and repaired as necessary by the Contractor as required by the Engineer.

B. <u>Materials and Methods</u>

The Herbivore Exclusion fence shall be made of galvanized chicken wire with a minimum height of 4 feet. The Herbivore Exclusion fence shall consist of a double row of fencing as shown in the details. The chicken wire shall be attached to the wooden posts with the use of 3/8 inch staples. There shall be a minimum of 4 staples per post. The chicken wire shall be embedded 12 inches below grade to prevent the herbivores from borrowing under the Herbivore Exclusion Fence.

The posts shall be made of oak and be 6 feet in length and a minimum of 2 inches in diameter. The post shall be spaced 10 foot on center and be driven into the ground to a depth of 2 foot.

C. <u>Measurement and Payment</u>

The quantity to be measured for payment under this Section shall be the total number of linear feet of herbivore exclusion fence furnished, installed, maintained and removed in accordance with the Plans and Specifications and the direction of the Engineer.

The contract price per linear foot for Herbivory Exclusion Fence shall be as indicated on the BID SCHEDULE OF PRICES, Item No. BMP-7.607. 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.

7.608 SURVEY BOLLARDS AND SURVEY MONUMENTS

7.609

CURB PLATE

7.610 CURB PLATE INSTALLATION

7.611 <u>CEDAR SPLIT RAIL FENCE</u>

7.612 <u>BRONZE PLAQUE</u>

7.613 SPLIT RAIL FENCE

A. <u>Description</u> - The Contractor shall furnish and install split rail fence where indicated on the Contract Drawings and specified herein.

B. <u>Materials and Construction</u>

- 1. Posts shall be black locust and rails white oak.
- 2. All posts and rails shall be debarked by drawknife or spud, and not by machine. Posts and rails debarked by machine shall be rejected.
- 3. All posts and rails shall be hand-split and hend-hewn.
- 4. All rail ends shall be ax cut, and not saw cut. Saw cut rail ends shall be rejected.
- 5. All posts shall be split lengthwise from logs 8"-10" diameter. Each post shall be 1/2 of a log.
- 6. All rails shall be split lengthwise from logs 8"-10" diameter. Each rail shall be 1/6-1/3 of a log.
- 7. The depth of the posts into the ground shall be as indicated on the Contract Drawings.

C. Measurement and Payment

The quantity to be measured for payment under this Section shall be the total linear feet of split rail fence furnished and installed in accordance with the Contract Drawings, specifications and directed by the Engineer.

The Contract price per linear foot for the split rail fence shall be as indicated on the BID SCHEDULE OF PRICES, Item No. BMP - 7.613. The bid price shall constitute full compensation for all labor, materials, equipment and incidental expenses necessary to complete the work in accordance with the plans and specifications to the satisfaction of the Engineer.

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7.614 <u>BELGIUM BLOCKS</u>

7.615 ORNAMENTAL SWING GATE

7.616 STEEL PANEL FENCE

7.617 <u>WELDED STAINLESS STEEL PIPE RAIL</u>

7.618 SURVEYING SERVICES FOR LOCATION OF BOUNDARY POINTS

7.619 HYDRANT UTILITY MARKER

7.620 <u>ALUMINUM PIPE RAILING</u>

7.621 <u>TIMBER BARRIER RAIL</u>

7.622 FOREBAY MICROPOOL SEDIMENT CLEAN-OUT INDICATOR

A. <u>Description of Work</u>

Under this item, the Contractor shall furnish, install and adjust Forebay-/Micropool Sediment Clean-Out Indicator in accordance with the plans, specifications and directions of the Engineer within the BMP Project limits and associated work areas.

B. Submittals

- 1. Before the work is started, the Contractor shall submit shop drawings for approval by the Engineer.
- 2. Drawings for the fabrication and installation of stainless steel welded Forebay/Micropool Sediment Clean-Out Indicator with sizes of members, components and anchorage devices, all based on specified requirements. Include copies of standard and custom detail drawings and installation instructions. Include all plans and elevations identifying the location and top elevation to establish sediment clean-out indicator removal depth.

C. Materials

All fittings and hardware shall be of the materials listed in the following schedule:

Stainless Steel:

- 1. Stainless Steel Rod or Pipe: ASTM A554, Type 316L. Provide posts and plates with 1.0 inch outside diameter, Schedule 10 min.
- 2. Stainless Steel Fittings: Same material and thickness as posts and plates except where otherwise shown on Contract Drawings.

Non-Shrink, Non-Metallic Grout:

- 1. Pre-mixed non-staining cementitious grout requiring only the addition of water.
- 2. Product and Manufacturer: Provide one of the following:
 - a. Euco N-S by the Euclide Chemical Company.
 - b. Masterflow 713 by Master Builders Company.
 - c. CPD Non-Shrink Grout Premix by Gantrex
 - d. Or approved equal.

D. <u>Installation</u>

- 1. The Forebay/Micropool Sediment Clean-Out Indicators shall be set in concrete as shown on the plans or as directed by the Engineer.
- 2. Adjust Clean-Out Indicators prior to securing in place with concrete or grout to ensure proper and correct alignment throughout their length. Plumb in each direction and adjust to the appropriate elevation.
- 3. Anchor or grout into concrete substrate.
- 4. All Clean-Out Indicators shall be set plumb and true to line and grade. Any Indicators not set true to line and grade shall be removed and replaced at the Contractor's expense. Bending posts to make them plumb will not be permitted.

E. Measurement and Payment

The quantity of Forebay/Micropool Sediment Clean-Out Indicators to be paid for under this item shall be the total number furnished and installed in accordance with the plans, specifications and directions of the Engineer.

The contract price for Each – Forebay/Micropool Sediment Clean-Out Indicator shall be as indicated on the BID SCHEDULE OF PRICES, Item BMP-7.622. The bid price shall include the cost for all labor, material, equipment and incidental expenses necessary to complete the work, including submissions and approvals, materials, fabrication, installation, and adjustment to the proper elevation, all in accordance with the plans and specifications to the satisfaction of the Engineer.

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STREAMBANK STABILIZATION

7.700 WORK INCLUDED

Under Streambank Stabilization, 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.

Section Number	<u>Title</u>
7.701	Live Stakes
7.705	Erosion Control Mat
7.707	Coir Logs
7.710	Reno Mattress

7.701 <u>LIVE STAKES</u>

A. <u>Description of Work</u>

The Contractor shall furnish all materials, labor, and equipment necessary to plant live stakes specified herein and as shown on the Contract Drawings, including all incidental and appurtenant work required for a complete job.

Live staking involves the insertion and tamping of live, dormant vegetative cuttings into the ground in order to create a fast growing vegetative cover.

A system of stakes creates a living root mat that stabilizes the soil by reinforcing and binding soil particles together and by extracting excess soil moisture. This technique is especially useful in stream bank stabilization. The Restoration Specialist or DEP representative shall supervise this work.

B. <u>Materials</u>

- 1. Cuttings shall be taken from appropriate native species, and may include native willows (Salix spp), Silky Dogwood (Cornus amomum) and Buttonbush (Cephalanthus occidentalis). Where possible, cuttings shall be taken from existing material on site.
- 2. Erosion control mat as described in the Specification Section 7.705.

C. <u>Construction Guidelines</u>

Live stakes shall be cut from long, upright branches taken off the parent plant. Only healthy, disease free parent plants shall be used as stock. Cuttings shall be taken only from species which are common, and no more than five (5) percent of the parent plant is to be cut. If the entire parent plant is to be removed due to construction, the entire plant may be used for cuttings.

Cuttings are to be taken and planted during the dormant season from October 15th to March 30th. Live stakes shall be planted only in areas that remain moist throughout the growing season.

Live stakes shall be between eighteen (18) and thirty-six (36) inches in length, and at least one-half (1/2) of an inch in diameter. A straight cut is to be made at the narrow end of the stake, just above a leaf bud (toward the tip of the branch). The thicker end (toward the trunk) shall be cut at an angle, 45°, so that it makes a point. Sharp pruning shears shall be used to cut all live stakes. The pointed end is to be driven into the ground. Leaves and small branches shall be removed from the stakes as soon as possible after cutting them to keep the stakes from drying out.

At the Restoration Specialist's direction, two (2) to three (3) inches of the narrow end (top) of the stake shall be dipped in <u>latex</u> paint (water based) to prevent drying and cracking. Different colors may be used to differentiate species.

Install Erosion Control Blanket as per Specification Section 7.705.

Stakes shall be planted within twenty four (24) hours of cutting. Between cutting and planting, live stakes shall be kept in the shade and are to be kept moist in buckets or wet burlap. Stakes shall be soaked in water for 24 hours prior to installation.

At the Restoration Specialist's direction, the bottom ends (sharp end) may be dipped into a solution of appropriate growth hormone to stimulate root growth. This is not needed for most Willows.

Drive the stakes into the streambank or wetland edge at appropriate elevations for at least 75% of its length deep. If live stakes are not planted immediately after cutting, a fresh angled cut shall be made at the base of the stake. Three (3) to six (6) inches shall be left above the ground to sprout leaves. Stakes shall be driven into the ground with a rubber mallet or by hand. A planting bar or length of rebar shall be used to make a planting hole in hard soils. Stakes shall be installed perpendicular to streambanks and not the water body.

Stakes at least one-half (1/2) inch in diameter shall be used when planting in rip-rap. In shaded areas, longer stakes are to be used with at least one (1) foot above the ground.

D. <u>Measurement and Payment</u>

The quantity to be paid for under this item shall be the number of live stakes furnished and placed in accordance with the plans and specifications to the satisfaction of the Engineer.

The contract bid shall be a unit price per each live stake as indicated on the BID SCHEDULE OF PRICES Item No. BMP-7.701A. The bid price shall include the cost of all labor, plant material, excavating, adding soil amendment 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. The cost of the erosion control mat shall be included in the price bid under that item.

7.702

ROCK TOE PLANTING

7.703 <u>N</u>

NATURAL FIELD STONES

7.704

OAK STAKES

7.705 <u>EROSION CONTROL MAT</u>

A. <u>Description of Work</u>

The Contractor shall furnish all labor, materials, and equipment necessary for placement of erosion control Mat as indicated on the Contract Drawings and as specified herein.

The erosion control mat shall be used for stabilization as indicated in the Contract Drawings.

The erosion control mats are 100% cleaned and wheel spun coconut fiber strands, uniformly twisted and woven into a flexible matrix. Coconut fiber is 100% mattress grade, 45% Lignin with a low elongation factor and high fabric tearing strength. The erosion control mats biodegrade in approximately five to ten years. The erosion control mat shall be Coirmat 700 by Rolanka Corporation; Control Mat 70 by Granite Environmental; GEOCOIR/DeKoWe 700 by Geo-Synthetics, LLC; or approved equal.

B. <u>Material</u>

100% high strength coir (coconut) fiber.

C. <u>Staples</u>

Minimum 11 gauge, 8" x 1" driven in a pattern of three per square yard and at intervals of 1' - 0" along sides and overlapping sections.

D. <u>Installation</u>

The erosion control blanket shall be installed as indicated on the Contract Drawings.

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 mats has been installed in accordance with the Contract Drawings, Specifications and directions of the Engineer.

The contract price per square foot of erosion control mats shall be as indicated on the BID SCHEDULE OF PRICES Item No. BMP-7.705. The bid price shall include the costs for all labor, materials, equipment and incidental expenses necessary to complete the work in accordance with the Plans and Specifications and to the satisfaction of the Engineer.

7.706

November 2015

FILTER BEDDING

7.707 COIR LOGS

A. <u>Description of Work</u>

The Contractor shall furnish all labor, materials, equipment necessary for installation of Coir Log as indicated on the Contract Drawings and as specified herein.

The coir log effectively manages the change in stream flow velocity, provide channel and shoreline stabilization and a planting medium for vegetation.

The coir log shall be North American Greene log or approved equal. Logs shall be 12" in diameter unless otherwise specified in project contract plans.

B. <u>Material</u>

- 1. 100% coir (coconut fiber).
- 2. Oak wood stakes.

C. Installation

- 1. Place the Coir log along the toe of the bank as shown on the Contract Drawings.
- 2. Submerge the Coir log at a constant depth of 1/2 to 2/3 of the log's height. The proper submersion of the Coir log is important for the plugged plants' survival.
- 3. Tie the ends of adjacent logs together with a strong twine or the recommended coir twine. Make a number of passes with the twine in the end netting of the adjacent Coir logs effectively lacing the Coir logs together.
- 4. Push oak wood stakes (2" x 2" x 36") through two loops of the Coir log's coir netting along both sides of the Coir log. Stakes shall meet all requirements of Specification Section 7.704.
- 5. Drive the stakes in at the recommended spacing of 24" o.c. Pound the stakes down so the top of the stake is level with the top of the Coir log. Stakes shall be notched one (1) inch below the top, and the Coir log cross-tied with Coir or Nylon String. Stakes should be cut flush with coir log material.

- 6. Where a Coir log does not abut another Coir log, bend the end in towards the shore and dig it into the bank. This keeps the water from getting behind the Coir log, preventing pull out of the logs. Be certain to trench in both ends of either a single or a continuous line of Coir logs.
- 7. Plug plants into the Coir log by pulling the coir fibers apart with fingers and gently pushing the plug deep into the Coir log.
- 8. Recommended spacing of plant plugs is 6" or less.
- 9. Plant sedges, rushes and grasses so that roots are 3-4" above the water level where they will receive adequate moisture.

E. Measurement and Payment

The quantity to be measured for payment under this section shall be the total number of linear feet of coir log furnished, installed and maintained in accordance with the plans and specifications and directions of the Engineer.

The contract price per linear foot for coir log shall be as indicated on the BID SCHEDULE OF PRICES, Item No. BMP-7.707-A. The unit price per linear foot shall also includes installation of the oak stakes and 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.

* * * * *

7.708 ROOT WAD/BRANCH CLUSTER AND DOWNED TREE PROVISION AND PLACEMENT

7.710 RENO MATTRESS

A. Description of Work

Under this item the Contractor shall furnish all labor, materials, equipment necessary to install Reno Mattress as shown on the Contract drawings and in accordance with the specification and as directed by the Engineer.

B. Materials and Construction

Reno Mattress is a wire mesh container uniformly partitioned into internal cells with relatively small height in relation to the other dimensions. The internal cells are interconnected with other units and filled with stone at the project site to form flexible, permanent monolithic structures used for channel bottom protection. The reno mattress shall have the dimensions as shown on the contract drawings.

The wire mesh shall be non-raveling mesh made of twisting continuous pairs of wires to form hexagonal shaped openings which are interconnected to adjacent wires. The wire is made from zinc coated and overcoated with PVC. PVC coatings shall not show cracks or breaks after the fabrication of the mesh. Fasteners used to assemble and interconnect the individual units shall be made of stainless steel.

The stones for the reno mattress shall be between 4" and 6" in diameter. The stones shall meet the specifications of the Rip Rap, Section 7.107 of this contract.

The subgrade shall be excavated to allow for the placement of the reno mattress to form the grade shown of the contract drawings. The reno mattress shall be placed on geotextile fabric laid directly on the compacted subgrade.

C. Measurement and Payment

The quantity to be measured for payment under this Section shall be the total number of square yards of reno mattress installed as directed by the Engineer.

The contract price per square yard of reno mattress installed shall be as indicated on the BID SCHEDULE OF PRICES Item No. BMP-7.710. The contract price shall include all excavation, grading and geotextile fabric necessary to install the reno mattress as directed by the Engineer. The bid price shall constitute full compensation for all labor, materials, equipment and work incidental thereto, necessary to complete this item in accordance with the plans and specifications to the satisfaction of the Engineer.

* * * *

End of Section This Section consists of three hundred nine (309) pages. . ,

ATTACH TO CONTRACT DOCUMENTS

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

PROJECT ID: SE803

FOR THE CONSTRUCTION OF SANITARY AND STORM SEWERS AND APPURTENANCES IN RAMBLE ROAD, ETC

INCLUDING WATER MAIN WORK

Together With All Work Incidental Thereto

BOROUGH OF STATEN ISLAND

ADDENDUM NO. 1

DATED: March 21, 2016

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 Contract Drawings;
Add the following drawings:

Sheet Nos:

SD-C-1	SD-C-6	SD-C-11	SD-ES-1
SD-C-2	SD-C-7	SD-C-12	SD-ES-2
SD-C-3	SD-C-8	SD-C-13	SD-L-1
SD-C-4	SD-C-9	SD-C-14	SD-SF-1
SD-C-5	SD-C-10	SD-C-15	SD-SF-2

(2) See attached list of QUESTIONS SUBMITTED BY BIDDERS AND RESPONSES PROVIDED BY DDC for additional information.

By signing in the space provided below, the bidder acknowledges receipt of the one (1) page of this Addendum plus one (1) sheet of attachment and twenty (20) sheets of contract drawings.

THIS ADDENDUM MUST BE SIGNED BY ALL BIDDERS AND ATTACHED TO THEIR BIDS.

DIFAZIO INDUSTRIES

38 KINSEY PLACE
STATEN ISLAND. NY 10303

Mame of Bidder

GURDIP SAINI, P.E.

Associate Commissioner/Design I

By

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

ADDENDA CONTROL SHEET

BID OPENING DATE: MARCH 29, 2016
PROJECT NO.: SE803
TITLE: FOR THE CONSTRUCTION OF SANITARY AND STORM
SEWERS AND APPURTENANCES IN RAMBLE ROAD, FTC

ADDENDA ISSUED	No. OF DRAWINGS	DATE
#1: Additional Amendments	20	03/21/2016

ATTACH TO CONTRACT DOCUMENTS

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

PROJECT ID: SE803

FOR THE CONSTRUCTION OF SANITARY AND STORM SEWERS AND APPURTENANCES IN RAMBLE ROAD, ETC

INCLUDING WATER MAIN WORK

Together With All Work Incidental Thereto

BOROUGH OF STATEN ISLAND

ADDENDUM NO. 2

DATED: March 25, 2016

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 "March 29, 2016" to read "April 12, 2016."
- (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 "March 29, 2016" to read "April 12, 2016."

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.

DIRAZIO INDUSTRIES
38 KINSEY PLACE

STATEN ISLAND, NY 10303

Name of Bidder

GURDIP SAINI, P.E.

Associate Commissioner/Design I

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

ADDENDA CONTROL SHEET

BID OPENING DATE: APRIL 12, 2016	
PROJECT NO.: <u>SE803</u>	
TITLE: FOR THE CONSTRUCTION OF SANITARY AND STORM	

ADDENDA ISSUED		No. OF DRAWINGS	DATE
#1: Additional Amendments		20	03/21/2016
#2: Additional Amendments			03/25/2016
	<u> </u>		
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By signing in the space provided below, the bidder acknowledges receipt of the four pages (4) pages of this Addendum plus fifty-five (55) pages of attachments and two (2) sheets of contract drawings.

THIS ADDENDUM MUST BE SIGNED BY ALL BIDDERS AND ATTACHED TO THEIR BIDS.

GURDIP SAINI, P.E.

Associate Commissioner/Design I

G. Samo

ATTACH TO CONTRACT DOCUMENTS

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

PROJECT ID: SE803

FOR THE CONSTRUCTION OF SANITARY AND STORM SEWERS AND APPURTENANCES IN RAMBLE ROAD, ETC

INCLUDING WATER MAIN WORK

Together With All Work Incidental Thereto

BOROUGH OF STATEN ISLAND

ADDENDUM NO. 4

DATED: April 11, 2016

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 "April 12, 2016" to read "April 19, 2016."
- (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 "April 12, 2016" to read "April 19, 2016."

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.

GURDIP SAINI, P.E.

Associate Commissioner/Design I

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

ADDENDA CONTROL SHEET

BID OPENING DAT	E:APRIL 19, 2016
PROJECT NO.: SE	803
	CONSTRUCTION OF SANITARY AND STORM
<u>SEWERS A</u>	ND APPURTENANCES IN RAMBLE ROAD, FTC

ADDENDA ISSUED	No. OF DRAWINGS	DATE
#1: Additional Amendments	20	03/21/2016
#2: Additional Amendments		03/25/2016
#3: Additional Amendments	2	04/06/2016
#4: Additional Amendments		04/11/2016

ATTACH TO CONTRACT DOCUMENTS

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

PROJECT ID: SE803

FOR THE CONSTRUCTION OF SANITARY AND STORM SEWERS AND APPURTENANCES IN RAMBLE ROAD. ETC

INCLUDING WATER MAIN WORK

Together With All Work Incidental Thereto

BOROUGH OF STATEN ISLAND

ADDENDUM NO. 5

DATED: April 14, 2016

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 (REVISION #1) to B- 44 (REVISION #1) as provided in Addendum No. 3 dated April 6, 2016;

 Delete all pages in their entirety;

 Substitute attached revised pages B-3 (REVISION #2) to B- 44 (REVISION #2).
- (2) Refer to the Contract Drawings, Sheet Nos. 3 of 32, 4 of 32, 5 of 32, 10 of 32, 13 of 32, and 20 of 32; Delete these sheets in their entirety; Substitute with attached revised Sheet Nos. 3R of 32, 4R of 32, 5R of 32, 10R of 32, 13 R of 32, and 20R of 32.
- (3) See attached list of QUESTIONS SUBMITTED BY BIDDERS AND RESPONSES PROVIDED BY DDC for additional information.

By signing in the space provided below, the bidder acknowledges receipt of the one (1) page of this Addendum plus forty-three (43) pages of attachments and six (6) sheets of contract drawings.

THIS ADDENDUM MUST BE SIGNED BY ALL BIDDERS AND ATTACHED TO THEIR BIDS.

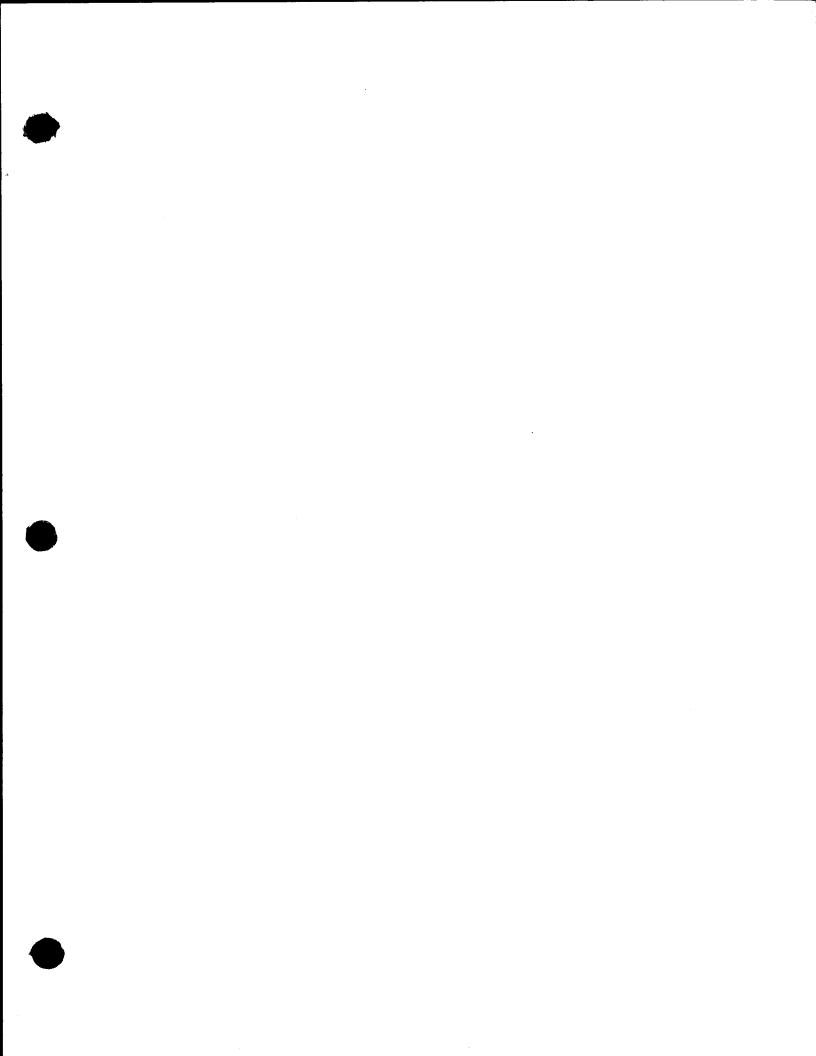
DIFAZIO INDUSTRIES 38 KINSEY PLACE STATEN ISLAND, NY 10303

GURDIP SAINI, P.E.

Associate Commissioner/Design I

Name of Bidder

By:





INFRASTRUCTURE DIVISION BUREAU OF DESIGN

VOLUME 3 OF 3

PROJECT ID: SE803

FOR THE CONSTRUCTION OF SANITARY AND STORM SEWERS AND APPURTENANCES IN RAMBLE ROAD, ETC

INCLUDING WATER MAIN WORK

Together With All Work Incidental Thereto BOROUGH OF STATEN ISLAND CITY OF NEW YORK

	Contractor
Dated	