



**Department of  
Design and  
Construction**

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

30-30 THOMSON AVENUE  
LONG ISLAND CITY, NEW YORK 11101-3045  
TELEPHONE (718) 391-1000  
WEBSITE [www1.nyc.gov/site/ddc/index.page](http://www1.nyc.gov/site/ddc/index.page)

**VOLUME 1 OF 3  
BID BOOKLET**

**LAW**

FOR FURNISHING ALL LABOR AND MATERIALS NECESSARY AND REQUIRED FOR:

**PROJECT ID: QED1023B**

**REPLACEMENT OF TRUNK AND DISTRIBUTION WATER MAIN IN  
CYPRESS AVENUE BETWEEN WILLOUGHBY AVENUE AND  
HIMROD STREET, ETC.**

**INCLUDING SEWER, STREET LIGHTING, TRAFFIC SIGNAL AND  
PRIVATE UTILITIES WORK**

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

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

**December 20, 2017**



8-082

**Bid Tab – REVISED\***

<b>Description</b>	<b>REPLACEMENT OF TRUNK AND DISTRIBUTION WATER MAINS IN CYPRESS AVENUE BETWEEN WILLOUGHBY AVE. AND HIMROD ST. - BOROUGH OF QUEENS</b>		
<b>Bid Date</b>	<b>03/23/2018</b>	<b>FMS ID</b>	<b>QED-1023B</b>
<b>Estimated Cost</b>	<b>\$40,374,256.46*</b>	<b>Client Agency</b>	<b>DEP</b>
<b>Bid Security</b>	<b>Not less than 2% of Total Bid Price</b>	<b>PLA</b>	<b>NO</b>
		<b>PQL</b>	<b>NO</b>
<b>Time Allowed</b>	<b>1275 CCD</b>	<b>Federal Funded:</b>	<b>NO</b>
<b>Addendum</b>	<b>1</b>	<b>Contract Manager</b>	<b>Nilofer Rajput</b>
<b>PIN</b>	<b>8502018WM0009C</b>	<b>Project Manager</b>	<b>Trofimov, Igor</b>
<b>E-PIN</b>	<b>85018B0096</b>	<b>Selective Bidding</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

<b>Bid Rank</b>	<b>Vendor</b>	<b>Bid Amount</b>	<b>Security Type</b>
<b>1</b>	<b>TRIUMPH CONSTRUCTION CORP.</b>	<b>\$35,744,518.78</b>	<b>*WITHDREW*</b>
<b>2</b>	<b>HALCYON CONSTRUCTION CORP.</b>	<b>\$41,745,000.00</b>	<b>Bond</b>
<b>3</b>	<b>LAWS CONSTRUCTION CORP.</b>	<b>\$45,766,206.78*</b>	<b>Bond</b>
<b>4</b>	<b>TULLY CONSTRUCTION CO. INC.</b>	<b>\$50,826,891.78*</b>	<b>Bond</b>
<b>5</b>	<b>A.L.A.C. CONTRACTING CORP.</b>	<b>\$51,533,020.77*</b>	<b>Bond</b>
<b>6</b>	<b>JLJ IV ENTERPRISES INC.</b>	<b>\$68,288,095.33*</b>	<b>Bond</b>

**Recorder: Maria Johnston Ext.1234**

**Approver:**

*Rosanna Holley*



Justin Walter  
Chief Administrative Officer  
Administration

June 11, 2018

**CERTIFIED MAIL - RETURN RECEIPT REQUEST**  
**HALCYON CONSTRUCTION CORP.**  
**65 MARBLE AVENUE**  
**PLEASANTVILLE, NY 10570**

**RE: FMS ID: QED-1023B**  
**E-PIN: 85018B0096001**  
**DDC PIN: 8502018WM0009C**  
**REPLACEMENT OF TRUNK AND**  
**DISTRIBUTION WATER MAINS IN**  
**CYPRESS AVENUE BETWEEN**  
**WILLOUBY AVE AND HIMROD ST -**  
**BOROUGH OF QUEENS**  
**NOTICE OF AWARD**

Dear Contractor:

You are hereby awarded the above referenced contract based upon your bid in the amount of \$41,745,000.00 submitted at the bid opening on March 23, 2018. 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 two copies of the Agreement in the Contracts Unit, 30-30 Thomson Avenue, 1<sup>st</sup> 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 two properly executed performance and payment bonds. If required for this contract, copies of performance and payment bonds are attached.
- (3) Submit to the Contracts Unit the following insurance documentation: (a) original certificate of insurance for general liability in the amount required by Schedule A, and (b) original certificates of insurance or other proof of coverage for workers' compensation and disability benefits, as required by New York State Law. The insurance documentation specified in this paragraph is required for registration of the contract with the Comptroller's Office.



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

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

Sincerely,

A handwritten signature in black ink, appearing to read "Michael Shipman". The signature is written in a cursive style with a long, sweeping tail on the final letter.

Michael Shipman  
Director of Contracts

# Notices to Bidders

## PASSPort Disclosure Filing

All vendors that intend to do business with the City of New York must complete a disclosure process in order to be considered for a contract. This disclosure process was formerly completed using Vendor Information Exchange System (VENDEX) paper-based forms. The City of New York has moved collection of vendor disclosure information online. In early August 2017, the New York City Mayor's Office of Contract Services (MOCS) launched the **Procurement and Sourcing Solutions Portal (PASSPort)**, a new online procurement system that replaced the paper-VENDEX process. In anticipation of awards, all bidders must create online accounts in the new PASSPort system, and file all disclosure information using PASSPort. **Paper submissions, including certifications of no changes to existing VENDEX packages will not be accepted in lieu of complete online filings.**

All vendors that intend to do business with the City, but specifically those that fall into any of the following categories, are required to enroll:

- Have a pending award with a City Agency; or
- Hold a current contract with a City Agency and have either an expiring VENDEX or expiring Certificate of No Change.

The Department of Design and Construction (DDC) and MOCS hereby notifies all proposers that the PASSPort system is available, and that disclosure filing completion is required prior to any award through this competitive bid.

To enroll in PASSPort and to access the PASSPort website (including online training), please visit [www.nyc.gov/passport](http://www.nyc.gov/passport). Contact MOCS at [passport@mocs.nyc.gov](mailto:passport@mocs.nyc.gov) for additional information and technical support.

# Notices to Bidders

## **Pre-Bid Questions (PBQs)**

Please be advised that PBQs should be submitted to the Agency Contact Person (CSB\_projectinquiries@ddc.nyc.gov) at least five (5) business days (by 5:00 PM 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.

All PBQs must reference the Project ID. If a Bidder has multiple PBQs for the same Project ID, the PBQs must be numbered sequentially, even if they are submitted separately.

## **Apprenticeship Program**

*If Apprenticeship Program is required as noted on Page 19 of this BID BOOKLET, the following notice applies:*

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.

# **NOTICE TO BIDDERS:**

# **NEW NOISE REQUIREMENTS**

The bidder is notified that conformance with NYC City Council Introduction 1653-2017 (<https://laws.council.nyc.gov/legislation/int-1653-2017/>) is required for all work to be performed under this contract.

No separate payment will be made for conformance with this requirement, and the costs thereof must be included in the prices bid for all items of work.

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# Notices to Bidders

## NYC Construction Loan Pilot Program

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](http://www.nyc.gov/nycbusiness) to learn more about the loan or contact [constructionloan@sbs.nyc.gov](mailto: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.

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**CITY OF NEW YORK**

**DEPARTMENT OF**  
**DESIGN AND CONSTRUCTION**  
**DIVISION OF INFRASTRUCTURE**

**BID BOOKLET**

**FOR FURNISHING ALL LABOR AND MATERIALS NECESSARY AND  
REQUIRED FOR:**

**PROJECT ID: QED1023B**

**REPLACEMENT OF TRUNK AND DISTRIBUTION WATER MAIN IN CYPRESS  
AVENUE BETWEEN WILLOUGHBY AVENUE AND  
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**INCLUDING SEWER, STREET LIGHTING, TRAFFIC SIGNAL AND PRIVATE  
UTILITIES WORK**

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

**NO TEXT ON THIS PAGE**

**PROJECT ID: QED1023B**

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

**BID BOOKLET**

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

**SPECIAL NOTICE TO BIDDERS**

**BID SUBMISSION REQUIREMENTS**

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

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

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

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

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

**NOTES:**

- (1) All of the above referred to blank forms to be completed and submitted with the bid are included in the BID BOOKLET.
- (2) If the bidder has any questions or requires additional information, please contact the Department of Design and Construction by phone (718-391- 2601) or by fax (718-391-2627).
- (3) **VENDEX QUESTIONNAIRES:** The Bidder is advised that Vendex Questionnaires and procedures have been changed. Vendex Questionnaires, as well as detailed instructions, may be obtained at [www.nyc.gov/vendex](http://www.nyc.gov/vendex). The bidder may also obtain Vendex forms and instructions by contacting the Agency Chief Contracting Officer or the contact person for this contract.
- (4) **SPECIAL EXPERIENCE REQUIREMENTS:** The Bidder is advised that Special Experience Requirements may apply to this contract. Such requirements are set forth on pages 3, 3a, 3b, and 4 of this Bid Booklet.

## SPECIAL NOTICE TO BIDDERS

### SPECIAL EXPERIENCE REQUIREMENTS (Revised 03/2014)

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

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

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

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

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

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

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



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

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

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

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

- **Hazmat Work:** Hazmat Work is any item of work in the Bid Schedule that begins with the prefix 8.01. The entity that will perform any Hazmat Work must, within the last three (3) consecutive years prior to the bid opening, have successfully completed in a timely fashion at least five (5) projects similar in scope and type to the required work.
- **Pile, CFA Pile, and/or Mini-Pile Work:** The entity that will perform the Pile, CFA Pile and/or Mini-Pile Work must, within the last three (3) consecutive years prior to the bid opening, have successfully completed in a timely fashion at least two (2) projects similar in scope and type to the required work.

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

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

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

- **OTHER:** \_\_\_\_\_  
\_\_\_\_\_

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

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

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

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

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

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

Qualification Form

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

Name of Contractor: HALCYON CONSTRUCTION CORP. 65 MARBLE AVENUE

Name of Project: PLEASANTVILLE, NEW YORK 10570 HED-552

Location of Project: SOUTHERN BLVD, BX

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

Name: MR DICKENS CHARLES

Title: NYCDPC Phone Number: -

Brief description of the Project completed or the Project in progress: INSTALLATION OF TRUNK W.M., SEWERS & ROADWAY RECONSI.

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

Amount of Contract, Subcontract or Sub-subcontract: \$46 M.

Start Date and Completion Date: 10/2015 - 6/2019

\*\*\*\*\*

Name of Contractor: HALCYON CONSTRUCTION CORP. 65 MARBLE AVENUE

Name of Project: PLEASANTVILLE, NEW YORK 10570 MED 600B

Location of Project: E. 58TH ST, MANHATTAN

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

Name: MR. SHAH JAROMI

Title: NYCDPC Phone Number: -

Brief description of the Project completed or the Project in progress: INSTALLATION OF TRUNK W.M. & APPURT.

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

Amount of Contract, Subcontract or Sub-subcontract: \$19 M.

Start Date and Completion Date: 12/2013 - 12/2016

ATTACHMENT 1 - BID INFORMATION

**PROJECT ID: QED1023B**  
**PIN: 8502018WM0009C**

Description and Location of Work: Replacement Of Trunk And Distribution Water Main In Cypress Avenue Between Willoughby Avenue And Himrod Street, Etc.together With All Work Incidental Thereto, Borough Of Queens.

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 23, 2018

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 23, 2018

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

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

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

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

Agency Contact Person: Lorraine Holley  
Phone: 718-391-2601 FAX: 718-391-2627  
Email: CSB\_projectinquiries@ddc.nyc.gov

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**LIST OF DRAWINGS****PROJECT ID: QED1023B****PIN: 8502018WM009C**

<b>Sheet No.</b>	<b>Description</b>
1 OF 79	TITLE SHEET
2 OF 79	LEGEND
3 OF 79	KEY PLAN / LIST OF DRAWINGS
4 OF 79	GENERAL NOTES
5 OF 79	NOTES
6-14 OF 79	PLAN AND PROFILE
15 OF 79	PROFILES
16 OF 79	CHAMBER NO. 1
17 OF 79	CHAMBER NO. 2
18 OF 79	CHAMBER NO. 3
19 OF 79	60-INCH BUTTERFLY VALVE AND CHAMBER
20-22 OF 79	MAINTENANCE AND PROTECTION OF TRAFFIC
23 OF 79	FDNY BASE MAP
24-30 OF 79	TRAFFIC SIGNALS
31-41 OF 79	RECORD OF BORINGS
42-54 OF 79	CATHODIC PROTECTION SYSTEM
55 OF 79	GENERAL NOTES AND CONDITIONS
56 OF 79	MASS EXCAVATION PLAN
57-64 OF 79	LOW TENSION MAINS AND SERVICES PLATE
65-73 OF 79	CONDUIT AND DUCT OCCUPANCY PLATE
74-78 OF 79	EXISTING FACILITIES PLAN
79 OF 79	CHARTER SPECTRUM SYSTEM

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02/13/2018

2:18PM

Ver 5.00.01



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

Contract FIN

8502018WM0009C

Project ID

QED1023B

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 several classes of work 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 5 shall be the product of the Estimated Quantity in Column 2 times the Unit Price Bid in Column 4.
  - (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 through B - 89



02/13/2018  
2:18PM  
BID PAGES



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

Contract PIN  
Project ID

8502018WM0009C  
QED1023B

COL. 1 ITEM NUMBER (SEQUENCE NO.)	COL. 2 ENGINEER'S ESTIMATE OF QUANTITIES	COL. 3 CLASSIFICATIONS	COL. 4 UNIT PRICES (IN FIGURES)		COL. 5 EXTENDED AMOUNTS (IN FIGURES)	
			DOLLARS	CTS	DOLLARS	CTS
4.02 AB-R (001)	196.0 S.Y.	ASPHALTIC CONCRETE WEARING COURSE, 1-1/2" THICK	\$ 30	-	\$ 5880	-
4.02 AF-R (002)	7,848.0 S.Y.	ASPHALTIC CONCRETE WEARING COURSE, 2" THICK	\$ 30	-	\$ 235 440	-
4.02 AG (003)	15,912.0 S.Y.	ASPHALTIC CONCRETE WEARING COURSE, 3" THICK	\$ 39	-	\$ 620 568	-
4.02 CA (004)	6,777.0 TONS	BINDER MIXTURE	\$ 10	-	\$ 67 770	-

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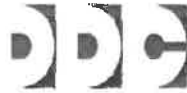


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			DOLLARS	CTS.	DOLLARS	CTS.
4.04 H (005)	3,481.0 C.Y.	CONCRETE BASE FOR PAVEMENT, VARIABLE THICKNESS FOR TRENCH RESTORATION, (HIGH-EARLY STRENGTH)	\$ 320	-	\$ 1,113,920	-
4.07 AB (006)	1,062.0 L.F.	RESET BLUESTONE CURB	\$ 60	-	\$ 63,720	-
4.07 BA (007)	522.0 L.F.	RESET GRANITE CURB	\$ 70	-	\$ 36,540	-
4.08 BA (008)	7,319.0 L.F.	CONCRETE CURB (21" DEEP)	\$ 54	-	\$ 395,226	-

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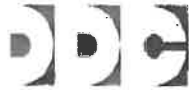
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			DOLLARS	CTS	DOLLARS	CTS
4.09 AD (009)	190.0 L.F.	STRAIGHT STEEL FACED CONCRETE CURB (18" DEEP)	\$ 80	-	\$ 15200	-
4.09 AE (010)	1,197.0 L.F.	STRAIGHT STEEL FACED CONCRETE CURB (21" DEEP)	\$ 85	-	\$ 101745	-
4.09 BE (011)	600.0 L.F.	DEPRESSED STEEL FACED CONCRETE CURB (21" DEEP)	\$ 100	-	\$ 60000	-
4.09 CD (012)	370.0 L.F.	CORNER STEEL FACED CONCRETE CURB (18" DEEP)	\$ 10	-	\$ 3700	-

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			DOLLARS	CTS	DOLLARS	CTS
4.09 CE (013)	730.0 L.F.	CORNER STEEL FACED CONCRETE CURB (21" DEEP)	\$ 10	-	\$ 7300	-
4.13 AAS (014)	27,068.0 S.F.	4" CONCRETE SIDEWALK (UNPIGMENTED)	\$ 10	-	\$ 270680	-
4.13 ABS (015)	26,558.0 S.F.	4" CONCRETE SIDEWALK (PIGMENTED)	\$ 11	-	\$ 292138	-
4.13 BAS (016)	6,698.0 S.F.	7" CONCRETE SIDEWALK (UNPIGMENTED)	\$ 14	-	\$ 93772	-

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			DOLLARS	CTS	DOLLARS	CTS
4.13 BBS (017)	3,277.0 S.F.	7" CONCRETE SIDEWALK (PIGMENTED)	\$ 16	-	\$ 52432	-
4.13 DE (018)	1,100.0 S.F.	EMBEDDED PREFORMED DETECTABLE WARNING UNITS	\$ 1	-	\$ 1100	-
4.16 AA (019)	17.0 EACH	TREES REMOVED (4" TO UNDER 12" CALIPER)	\$ 450	-	\$ 7650	-
4.16 AB (020)	7.0 EACH	TREES REMOVED (12" TO UNDER 18" CALIPER)	\$ 600	-	\$ 4200	-

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			DOLLARS	CTS	DOLLARS	CTS
4.16 BA505 (021)	74.0 EACH	TREES PLANTED, 2-1/2" TO 3" CALIPER, ALL TYPES, IN 5' X 5' TREE PITS	\$ 1050 -		\$ 77700 -	
4.16 STUMP (022)	2.0 UNITS	STUMP REMOVAL	\$ 250 -		\$ 500 -	
4.18 A (023)	110.0 EACH	MAINTENANCE TREE PRUNING (UNDER 12" CAL.)	\$ 200 -		\$ 22000 -	
4.18 B (024)	68.0 EACH	MAINTENANCE TREE PRUNING (12" TO UNDER 18" CAL.)	\$ 300 -		\$ 20400 -	

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			DOLLARS	CTS	DOLLARS	CTS
4.18 C (025)	13.0 EACH	MAINTENANCE TREE PRUNING (18" TO UNDER 24" CAL.)	\$ 375	-	\$ 4875	-
4.21 (026)	1,146.0 P/HR	TREE CONSULTANT	\$ 67	-	\$ 76782	-
50.21C3C066D (027)	178.0 L.F.	66" R.C.P. CLASS III COMBINED SEWER, ON CONCRETE CRADLE	\$ 1900	-	\$ 338200	-
50.21C4C024D (028)	25.0 L.F.	24" R.C.P. CLASS IV COMBINED SEWER, ON CONCRETE CRADLE	\$ 1100	-	\$ 27500	-

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			DOLLARS	CTS	DOLLARS	CTS
50.21C4C054D (029)	561.0 L.F.	54" R.C.P. CLASS IV COMBINED SEWER, ON CONCRETE CRADLE	\$ 1400	-	\$ 785400	-
50.31CC15 (030)	1,074.0 L.F.	15" E.S.V.P. COMBINED SEWER, ON CONCRETE CRADLE	\$ 850	-	\$ 912900	-
50.31CC18 (031)	936.0 L.F.	18" E.S.V.P. COMBINED SEWER, ON CONCRETE CRADLE	\$ 850	-	\$ 795600	-
50.41C6E16 (032)	210.0 L.F.	16" D.I.P. CLASS 56 COMBINED SEWER, ENCASED IN CONCRETE	\$ 1100	-	\$ 231000	-



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			DOLLARS	CTS	DOLLARS	CTS
51.11C001 (033)	1.0 EACH	CHAMBER NO. 1	\$ 130 000 -		\$ 130 000 -	
51.11C002 (034)	1.0 EACH	CHAMBER NO. 2	\$ 130 000 -		\$ 130 000 -	
51.11C003 (035)	1.0 EACH	CHAMBER NO. 3	\$ 290 000 -		\$ 290 000 -	
51.21S0A1000V (036)	21.0 EACH	STANDARD MANHOLE TYPE A-1	\$ 5 500 -		\$ 115 500 -	

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			DOLLARS	CTS	DOLLARS	CTS
51.2180A2000V (037)	2.0 EACH	STANDARD MANHOLE TYPE A-2	\$ 6000	-	\$ 12000	-
51.2180C2054R (038)	2.0 EACH	STANDARD MANHOLE TYPE C-2 ON 54" R.C.P. SEWER	\$ 30000	-	\$ 60000	-
51.2180D1066R (039)	2.0 EACH	STANDARD MANHOLE TYPE D-1 ON 66" R.C.P. SEWER	\$ 40000	-	\$ 80000	-
51.23RF (040)	2.0 EACH	REPLACEMENT OF EXISTING MANHOLE FRAME AND COVER	\$ 900	-	\$ 1800	-

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			DOLLARS	CTS	DOLLARS	CTS
51.41S001 (041)	22.0 EACH	STANDARD CATCH BASIN, TYPE 1	\$ 7000 -		\$ 154000 -	
51.41S003 (042)	5.0 EACH	STANDARD CATCH BASIN, TYPE 3	\$ 12000 -		\$ 60000 -	
51.42S190 (043)	2.0 EACH	INCREMENTAL COST OF STANDARD CATCH BASIN TYPE 3 WITH CURB PIECE IN LIEU OF STANDARD CATCH BASIN TYPE 1	\$ 4500 -		\$ 9000 -	
52.11D12 (044)	620.0 L.F.	12" DUCTILE IRON PIPE BASIN CONNECTION	\$ 350 -		\$ 217000 -	

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			DOLLARS	CTS	DOLLARS	CTS
52.31D06C16 (045)	2.0 EACH	6" DUCTILE IRON PIPE SPUR FOR HOUSE CONNECTION ON 16" D.I.P. COMBINED SEWER	\$ 1 -		\$ 2 -	
52.31V06C15 (046)	68.0 EACH	6" E.S.V.P. SPUR FOR HOUSE CONNECTION ON 15" E.S.V.P. COMBINED SEWER	\$ 750 -		\$ 51000 -	
52.31V06C18 (047)	29.0 EACH	6" E.S.V.P. SPUR FOR HOUSE CONNECTION ON 18" E.S.V.P. COMBINED SEWER	\$ 1200 -		\$ 34800 -	
52.41D06R (048)	761.0 L.F.	6" D.I.P. HOUSE CONNECTION DRAIN ON CONCRETE CRADLE (RECONNECTION)	\$ 1 -		\$ 761 <sup>(PL)</sup> -	
					\$ <del>716</del> -	

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			DOLLARS	CTS	DOLLARS	CTS
52.41D08R (049)	50.0 L.F.	8" D.I.P. HOUSE CONNECTION DRAIN ON CONCRETE CRADLE (RECONNECTION)	\$ 200	-	\$ 10000	-
52.41V06R (050)	1,158.0 L.F.	6" E.S.V.P. HOUSE CONNECTION DRAIN ON CONCRETE CRADLE (RECONNECTION)	\$ 1	-	\$ 1158	-
52.41V08R (051)	50.0 L.F.	8" E.S.V.P. HOUSE CONNECTION DRAIN ON CONCRETE CRADLE (RECONNECTION)	\$ 30	-	\$ 1500	-
52.51RP (052)	1.0 EACH	REMOVAL OF PROTRUDING SERVICE CONNECTIONS	\$ 1	-	\$ 1	-

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			DOLLARS	CTS	DOLLARS	CTS
52.61RC (053)	1.0 EACH	RE-OPENING OF SERVICE CONNECTIONS	\$ 1	-	\$ 1	-
53.11DR (054)	2,858.0 L.F.	TELEVISION INSPECTION AND DIGITAL AUDIO-VISUAL RECORDING OF SEWERS	\$ 7	-	\$ 20006	-
6.02 AAN (055)	6,103.0 C.Y.	UNCLASSIFIED EXCAVATION	\$ 100	-	\$ 610300	-
6.23 DC (056)	600.0 L.F.	FURNISH AND INSTALL 10 PAIR FIRE ALARM CABLE	\$ 29	-	\$ 17400	-

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			DOLLARS	CTS	DOLLARS	CTS
6.25 RS (057)	5,726.0 S.F.	TEMPORARY SIGNS	\$ 0.01		\$ 57	26
6.26 (058)	22,392.0 L.F.	TIMBER CURB	\$ 0.10		\$ 2239	20
6.28 AA (059)	1,944.0 L.F.	LIGHTED TIMBER BARRICADES	\$ 0.10		\$ 194	40
6.29 TTM (060)	200.0 EACH	TEMPORARY TUBULAR MARKERS	\$ 1	=	\$ 200	-

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			DOLLARS	CTS	DOLLARS	CTS
6.34 ACT (061)	1,040.0 L.F.	TEMPORARY CHAIN LINK FENCE, 6'-0" HIGH	\$ 0	10	\$ 104	-
6.34 ACTP (062)	1,040.0 L.F.	TEMPORARY CHAIN LINK FENCE, 6'-0" HIGH (WITH TOP AND BOTTOM RAILS AND POSTS MOUNTED ON STEEL PLATES)	\$ 40	-	\$ 41600	-
6.40 DU (063)	48.0 MONTH	ENGINEER'S FIELD OFFICE (JOINT USE) (TYPE DU)	\$ 8400	-	\$ 403200	-
6.44 (064)	10,595.0 L.F.	THERMOPLASTIC REFLECTORIZED PAVEMENT MARKINGS (4" WIDE)	\$ 1	25	\$ 13243	75



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			DOLLARS	CTS	DOLLARS	CTS
6.49 (065)	11,115.0 L.F.	TEMPORARY PAVEMENT MARKINGS (4" WIDE)	\$ 0	10	\$ 1111	50
6.52 CG (066)	7,280.0 P/HR	CROSSING GUARD	\$ 75	-	\$ 546000	-
6.53 (067)	10,595.0 L.F.	REMOVE EXISTING LANE MARKINGS (4" WIDE)	\$ 0	10	\$ 1059	50
6.55 (068)	824.0 L.F.	SAWCUTTING EXISTING PAVEMENT	\$ 3	50	\$ 2884	-

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			DOLLARS	CTS	DOLLARS	CTS
6.59 P (069)	15,270.0 L.F.	TEMPORARY CONCRETE BARRIER	\$ 1	-	\$ 15270	-
6.59 PF (070)	1,120.0 L.F.	TEMPORARY CONCRETE BARRIER WITH FENCE	\$ 1	-	\$ 1120	-
6.87 (071)	3,905.0 EACH	PLASTIC BARRELS	\$ 0	10	\$ 390	50
6.91 (072)	6,645.0 L.F.	REFLECTIVE CRACKING MEMBRANE (18" WIDE)	\$ 10	-	\$ 66450	-

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			DOLLARS	CTS	DOLLARS	CTS
6.97 A (073)	700.0 C.Y.	EXTRA-HIGH-EARLY STRENGTH CONCRETE	\$ 50 -		\$ 35000 -	
60.11R520 (074)	2,070.0 L.F.	FURNISHING AND DELIVERING 20-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 55)	\$ 180 -		\$ 372600 -	
60.11R548 (075)	10.0 L.F.	FURNISHING AND DELIVERING 48-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 55)	\$ 1800 -		\$ 18000 -	
60.11R606 (076)	437.0 L.F.	FURNISHING AND DELIVERING 6-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 56)	\$ 35 -		\$ 15295 -	

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			DOLLARS	CTS	DOLLARS	CTS
60.11R608 (077)	465.0 L.F.	FURNISHING AND DELIVERING 8-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 56)	\$ 100 -		\$ 46500 -	
60.11R612 (078)	6,142.0 L.F.	FURNISHING AND DELIVERING 12-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 56)	\$ 150 -		\$ 921300 -	
60.12D06 (079)	614.0 L.F.	LAYING 6-INCH DUCTILE IRON PIPE AND FITTINGS	\$ 50 -		\$ 30700 -	
60.12D08 (080)	514.0 L.F.	LAYING 8-INCH DUCTILE IRON PIPE AND FITTINGS	\$ 250 -		\$ 128500 -	

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			DOLLARS	CTS	DOLLARS	CTS
60.12D12 (081)	6,330.0 L.F.	LAYING 12-INCH DUCTILE IRON PIPE AND FITTINGS	\$ 250	-	\$ 1582500	-
60.12D20 (082)	2,189.0 L.F.	LAYING 20-INCH DUCTILE IRON PIPE AND FITTINGS	\$ 240	-	\$ 525360	-
60.12D48 (083)	15.0 L.F.	LAYING 48-INCH DUCTILE IRON PIPE AND FITTINGS	\$ 1100	-	\$ 16500	-
60.13M0A24 (084)	52.0 TONS	FURNISHING AND DELIVERING DUCTILE IRON MECHANICAL JOINT 24-INCH DIAMETER AND SMALLER FITTINGS, INCLUDING WEDGE TYPE RETAINER GLANDS	\$ 3000	-	\$ 156000	-

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			DOLLARS	CTS	DOLLARS	CTS
60.13M5S48 (085)	1.0 EACH	FURNISHING AND DELIVERING 48-INCH DUCTILE IRON MECHANICAL JOINT SLEEVES (CLASS 55)	\$ 20,000	-	\$ 20,000	-
60.18BJC20EL (086)	10.0 EACH	FURNISHING, DELIVERING AND INSTALLING BELL JOINT CLAMPS, COMPLETE FOR 20-INCH PIPE AND LESS	\$ 1	-	\$ 10	-
60.21SP4T48 (087)	2,160.0 L.F.	FURNISHING, DELIVERING AND LAYING 48-INCH STRAIGHT STEEL PIPE, 1/2-INCH WALL THICKNESS	\$ 2,000	-	\$ 4,320,000	-
60.21SP5T60 (088)	4,020.0 L.F.	FURNISHING, DELIVERING AND LAYING 60-INCH STRAIGHT STEEL PIPE, 5/8-INCH WALL THICKNESS	\$ 2,675	-	\$ 10,753,500	-

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COL. 1 ITEM NUMBER (SEQUENCE NO.)	COL. 2 ENGINEER'S ESTIMATE OF QUANTITIES	COL. 3 CLASSIFICATIONS	COL. 4 UNIT PRICES (IN FIGURES)		COL. 5 EXTENDED AMOUNTS (IN FIGURES)	
			DOLLARS	CTS	DOLLARS	CTS
60.22BR4T48 (089)	16.0 L.F.	FURNISHING, DELIVERING AND LAYING 48-INCH STEEL BENDS AND REDUCERS, 1/2-INCH WALL THICKNESS	\$ 1,000	-	\$ 16,000	-
60.22BR6T60 (090)	40.0 L.F.	FURNISHING, DELIVERING AND LAYING 60-INCH STEEL BENDS AND REDUCERS, 3/4-INCH WALL THICKNESS	\$ 3,700	-	\$ 148,000	-
60.25PSO (091)	8,500.0 LBS.	FURNISHING, DELIVERING AND INSTALLING PLATE STEEL OUTLETS ON STEEL PIPE, ACCESS MANHOLE OUTLETS WITH COVERS, AND NUTS AND BOLTS COMPLETE	\$ 37	-	\$ 314,500	-
60.27RSC60 (092)	1.0 EACH	FURNISHING, DELIVERING AND INSTALLING 60-INCH DIAMETER BOLTED, SPLIT SLEEVE-TYPE RESTRAINED COUPLING	\$ 75,000	-	\$ 75,000	-

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			DOLLARS	CTS	DOLLARS	CTS
60.29CP (093)	1.0 L.S.	FURNISHING, INSTALLING AND TESTING CORROSION CONTROL AND/OR CATHODIC PROTECTION SYSTEM	\$ 100 000	-	\$ 100 000	-
61.11DFM06 (094)	7.0 EACH	FURNISHING AND DELIVERING 6-INCH FLANGED-MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLAND	\$ 3 000	-	\$ 21 000	-
61.11DFM20 (095)	5.0 EACH	FURNISHING AND DELIVERING 20-INCH FLANGED-MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLAND	\$ 25 000	-	\$ 125 000	-
61.11DMM06 (096)	36.0 EACH	FURNISHING AND DELIVERING 6-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	\$ 12 000	-	\$ 432 000	-



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			DOLLARS	CTS	DOLLARS	CTS
61.11DMM08 (097)	6.0 EACH	FURNISHING AND DELIVERING 8-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	\$ 3000-		\$ 18000-	
61.11DMM12 (098)	17.0 EACH	FURNISHING AND DELIVERING 12-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	\$ 7500-		\$ 127500-	
61.11DMM20 (099)	12.0 EACH	FURNISHING AND DELIVERING 20-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	\$ 12000-		\$ 144000-	
61.11TWC03 (100)	4.0 EACH	FURNISHING AND DELIVERING 3-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	\$ 1000-		\$ 4000-	

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			DOLLARS	CTS	DOLLARS	CTS
61.11TWC04 (101)	1.0 EACH	FURNISHING AND DELIVERING 4-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	\$ 1200	-	\$ 1200	-
61.12DFM06 (102)	7.0 EACH	SETTING 6-INCH FLANGED-MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLAND	\$ 1000	-	\$ 7000	-
61.12DFM20 (103)	5.0 EACH	SETTING 20-INCH FLANGED-MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLAND	\$ 2000	-	\$ 10000	-
61.12DMM06 (104)	36.0 EACH	SETTING 6-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	\$ 300	-	\$ 10800	-

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			DOLLARS	CTS	DOLLARS	CTS
61.12DMM08 (105)	6.0 EACH	SETTING 8-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	\$ 1000	-	\$ 6000	-
61.12DMM12 (106)	17.0 EACH	SETTING 12-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	\$ 2000	-	\$ 34000	-
61.12DMM20 (107)	12.0 EACH	SETTING 20-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	\$ 1000	-	\$ 12000	-
61.12TWC03 (108)	4.0 EACH	SETTING 3-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	\$ 200	-	\$ 800	-

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			DOLLARS	CTS	DOLLARS	CTS
61.12TWC04 (109)	1.0 EACH	SETTING 4-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	\$ 200 -		\$ 200 -	
61.21BVB60 (110)	1.0 EACH	FURNISHING, DELIVERING AND INSTALLING 60-INCH BUTTERFLY VALVE WITH BY-PASS ARRANGEMENT AND OUTLET, COMPLETE	\$ 250000 -		\$ 250000 -	
61.31PV20 (111)	1.0 EACH	FURNISHING, DELIVERING AND INSTALLING 20-INCH PRESSURE REGULATOR VALVE	\$ 100000 -		\$ 100000 -	
62.11SD (112)	41.0 EACH	FURNISHING AND DELIVERING HYDRANTS	\$ 3000 -		\$ 123000 -	

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			DOLLARS	CTS	DOLLARS	CTS
62.12SG (113)	41.0 EACH	SETTING HYDRANTS COMPLETE WITH WEDGE TYPE RETAINER GLANDS	\$ 1500 -		\$ 61500 -	
62.13RH (114)	27.0 EACH	REMOVING HYDRANTS	\$ 250 -		\$ 6750 -	
62.14FS (115)	92.0 EACH	FURNISHING, DELIVERING AND INSTALLING HYDRANT FENDERS	\$ 275 -		\$ 25300 -	
63.11MH (116)	6.0 TONS	FURNISHING, DELIVERING AND INSTALLING 36-INCH CAST IRON MANHOLE HEADS AND COVERS	\$ 2500 -		\$ 15000 -	

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			DOLLARS	CTS	DOLLARS	CTS
63.11MS (117)	150.0 EACH	FURNISHING, DELIVERING AND INSTALLING MANHOLE STEPS TYPE PS2-PF	\$ 32	-	\$ 4800	-
63.11VC (118)	70.0 TONS	FURNISHING AND DELIVERING VARIOUS CASTINGS	\$ 200	-	\$ 14000	-
64.11EL (119)	69.0 EACH	WITHDRAWING AND REPLACING HOUSE SERVICES USING 1-1/2-INCH OR LARGER SCREW TAPS	\$ 300	-	\$ 20700	-
64.11ST (120)	153.0 EACH	WITHDRAWING AND REPLACING HOUSE SERVICES USING SMALLER THAN 1-1/2-INCH SCREW TAPS	\$ 500	-	\$ 76500	-

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			DOLLARS	CTS	DOLLARS	CTS
64.12COEG (121)	114.0 L.F.	CUTTING AND OFFSETTING HOUSE SERVICE WATER CONNECTIONS (EQUAL TO OR GREATER THAN 3-INCH DIAMETER)	\$ 1	-	\$ 114	-
64.12COLT (122)	2,717.0 L.F.	CUTTING AND OFFSETTING HOUSE SERVICE WATER CONNECTIONS (LESS THAN 3-INCH DIAMETER)	\$ 1	-	\$ 2717	-
64.12ESEG (123)	100.0 L.F.	EXTENDING HOUSE SERVICE WATER CONNECTIONS (EQUAL TO OR GREATER THAN 3-INCH DIAMETER)	\$ 120	-	\$ 12000	-
64.12ESLT (124)	100.0 L.F.	EXTENDING HOUSE SERVICE WATER CONNECTIONS (LESS THAN 3-INCH DIAMETER)	\$ 105	-	\$ 10500	-

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			DOLLARS	CTS	DOLLARS	CTS
64.13WC08 (125)	3.0 EACH	FURNISHING, DELIVERING AND INSTALLING WET CONNECTION SLEEVE ON 8-INCH WATER MAIN PIPE WITH VARIOUS OUTLETS	\$ 2500	-	\$ 7500	-
64.13WC12 (126)	2.0 EACH	FURNISHING, DELIVERING AND INSTALLING WET CONNECTION SLEEVE ON 12-INCH WATER MAIN PIPE WITH VARIOUS OUTLETS	\$ 3700	-	\$ 7400	-
65.11BR (127)	3,241.0 LBS.	FURNISHING, DELIVERING AND INSTALLING BANDS, RODS, WASHERS, ETC., COMPLETE, FOR RESTRAINING JOINTS	\$ 2	-	\$ 6482	-
65.21PS (128)	2,260.0 L.F.	FURNISHING AND PLACING POLYETHYLENE SLEEVE  Unit price bid shall not be less than: \$ 0.50	\$ 0	.50	\$ 1130	-



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			DOLLARS	CTS	DOLLARS	CTS
65.31FF (129)	213,615.0 S.F.	FURNISHING, DELIVERING AND PLACING FILTER FABRIC  Unit price bid shall not be less than: \$ 0.10	\$ 0.10		\$ 21361	50
65.41PS06 (130)	4.0 EACH	FURNISHING, DELIVERING AND INSTALLING 6-INCH PIPE-TO-WALL PENETRATION SEAL, INCLUDING STEEL SLEEVE AND ANCHOR/WATER STOP PLATE	\$ 1500 -		\$ 6000 -	
65.41PS20 (131)	8.0 EACH	FURNISHING, DELIVERING AND INSTALLING 20-INCH PIPE-TO-WALL PENETRATION SEAL, INCLUDING STEEL SLEEVE AND ANCHOR/WATER STOP PLATE	\$ 2500 -		\$ 20000 -	
65.41PS48 (132)	2.0 EACH	FURNISHING, DELIVERING AND INSTALLING 48-INCH PIPE-TO-WALL PENETRATION SEAL, INCLUDING STEEL SLEEVE AND ANCHOR/WATER STOP PLATE	\$ 7000 -		\$ 14000 -	

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			DOLLARS	CTS	DOLLARS	CTS
65.41PS60 (133)	6.0 EACH	FURNISHING, DELIVERING AND INSTALLING 60-INCH PIPE-TO-WALL PENETRATION SEAL, INCLUDING STEEL SLEEVE AND ANCHOR/WATER STOP PLATE	\$ 10000	-	\$ 60000	-
65.51PC (134)	225.0 C.Y.	FURNISHING AND PLACING CAST-IN-PLACE CONCRETE CLASS 40 AND PRECAST CONCRETE CLASS 50	\$ 1000	-	\$ 225000	-
65.51SS (135)	21,200.0 LBS.	FURNISHING, DELIVERING AND PLACING STRUCTURAL, REINFORCING AND MISCELLANEOUS STEEL	\$ 2.50		\$ 53000	-
65.71SG (136)	5,841.0 C.Y.	FURNISHING, DELIVERING AND PLACING SCREENED GRAVEL OR SCREENED BROKEN STONE BEDDING	\$ 0.50		\$ 2920	50

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			DOLLARS	CTS	DOLLARS	CTS
7.13 B (137)	42.0 MONTH	MAINTENANCE OF SITE  Unit price bid shall not be less than: \$ 8,000.00	\$ 90,000	-	\$ 3,780,000	-
7.36 (138)	14,764.0 L.F.	PEDESTRIAN STEEL BARRICADES	\$ 5	-	\$ 73820	-
7.88 AA (139)	1.0 L.S.	RODENT INFESTATION SURVEY AND MONITORING  Unit price bid shall not be less than: \$ 5,940.00	\$ 5940	-	\$ 5940	-
7.88 AB (140)	4,517.0 EACH	RODENT BAIT STATIONS  Unit price bid shall not be less than: \$ 60.00	\$ 60	-	\$ 271020	-

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			DOLLARS	CTS	DOLLARS	CTS
7.88 AC (141)	4,517.0 EACH	BAITING OF RODENT BAIT STATIONS  Unit price bid shall not be less than: \$ 9.50	\$ 9	50	\$ 42911	50
7.88 AD (142)	756.0 BLOCK	WATERBUG BAIT APPLICATIONS  Unit price bid shall not be less than: \$ 65.00	\$ 65	-	\$ 49140	-
70.21DK (143)	9,800.0 S.Y.	DECKING	\$ 1	-	\$ 9800	-
70.31FN (144)	29,228.0 L.F.	FENCING  Unit price bid shall not be less than: \$ 2.00	\$ 2	-	\$ 58456	-

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			DOLLARS	CTS	DOLLARS	CTS
70.51EO (145)	175.0 C.Y.	EXCAVATION OF BOULDERS IN OPEN CUT  Unit price bid shall not be less than: \$ 75.00	\$ 75	-	\$ 13125	-
70.61RE (146)	30.0 C.Y.	ROCK EXCAVATION	\$ 200	-	\$ 6000	-
70.71SB (147)	100.0 C.Y.	STONE BALLAST  Unit price bid shall not be less than: \$ 15.00	\$ 35	-	\$ 3500	-
70.81CB (148)	7,106.0 C.Y.	CLEAN BACKFILL  Unit price bid shall not be less than: \$ 15.00	\$ 15	-	\$ 106590	-

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			DOLLARS	CTS	DOLLARS	CTS
70.91SW12 (149)	24,472.0 S.F.	FURNISHING AND PLACING SHEETING AND BRACING IN TRENCH FOR WATER MAIN PIPE 12-INCH IN DIAMETER AND LESS	\$ 0	01	\$ 244	72
70.91SW20 (150)	11,627.0 S.F.	FURNISHING AND PLACING SHEETING AND BRACING IN TRENCH FOR WATER MAIN PIPE 20-INCH IN DIAMETER	\$ 0	01	\$ 116	27
72.11HF (151)	51.0 C.Y.	HYDRAULIC FILL FOR ABANDONED SEWERS AND WATER MAINS	\$ 250	-	\$ 12750	-
73.11AB (152)	165.0 C.Y.	ADDITIONAL BRICK MASONRY  Unit price bid shall not be less than: \$ 62.50	\$ 62	50	\$ 10312	50

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			DOLLARS	CTS	DOLLARS	CTS
73.21AC (153)	100.0 C.Y.	ADDITIONAL CONCRETE  Unit price bid shall not be less than: \$ 62.50	\$ 62	50	\$ 6250	-
73.31AE0 (154)	650.0 C.Y.	ADDITIONAL EARTH EXCAVATION INCLUDING TEST PITS (ALL DEPTHS)  Unit price bid shall not be less than: \$ 20.00	\$ 20	-	\$ 13000	-
73.41AG (155)	625.0 C.Y.	ADDITIONAL SELECT GRANULAR BACKFILL  Unit price bid shall not be less than: \$ 15.00	\$ 15	-	\$ 9375	-
73.61AT (156)	500.0 C.Y.	ADDITIONAL STONE BALLAST  Unit price bid shall not be less than: \$ 15.00	\$ 15	-	\$ 7500	-

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			DOLLARS	CTS	DOLLARS	CTS
75.11RT (157)	200.0 L.F.	REMOVAL OF ABANDONED TRACKS	\$ 75 -		\$ 15000 -	
8.01 C1 (158)	15,000.0 TONS	HANDLING, TRANSPORTING AND DISPOSAL OF NON-HAZARDOUS CONTAMINATED SOIL	\$ 10 -		\$ 150000 -	
8.01 C2 (159)	78.0 SETS	SAMPLING AND TESTING OF CONTAMINATED/POTENTIALLY HAZARDOUS SOIL FOR DISPOSAL PURPOSES	\$ 200 -		\$ 15600 -	
8.01 H (160)	5,000.0 TONS	HANDLING, TRANSPORTING AND DISPOSAL OF HAZARDOUS SOIL	\$ 30 -		\$ 150000 -	



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			DOLLARS	CTS	DOLLARS	CTS
8.01 S (161)	1.0 L.S.	HEALTH AND SAFETY	\$ 5000	-	\$ 5000	-
8.01 W1 (162)	3.0 DAY	REMOVAL, TREATMENT, AND DISCHARGE/DISPOSAL OF CONTAMINATED WATER	\$ 1500	-	\$ 4500	-
8.01 W2 (163)	3.0 SETS	SAMPLING AND TESTING OF CONTAMINATED WATER	\$ 1000	-	\$ 3000	-
8.02 A (164)	1,600.0 S.F.	SPECIAL CARE EXCAVATION AND RESTORATION FOR SIDEWALK WORK	\$ 5	-	\$ 8000	-

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			DOLLARS	CTS	DOLLARS	CTS
8.02 B (165)	440.0 L.F.	SPECIAL CARE EXCAVATION AND RESTORATION FOR CURB WORK	\$ 10 -		\$ 4,400 -	
9.04 HW (166)	1.0 F.S.	ALLOWANCE FOR ANTI-FREEZE ADDITIVE IN CONCRETE PRICE BID SHALL BE FOR THE FIXED SUM OF \$ 15,000.00	\$ 15,000.00		\$ 15,000.00	
9.99 (167)	4.0 EACH	FLASHING ARROW BOARD	\$ 5,000 -		\$ 20,000 -	
JB 100.1 (VERZ) (168)	14.0 EACH	UTILITIES CROSSING TRENCH FOR CATCH BASIN CHUTE CONNECT. AND/OR TEST PIT (TYPE.1)  Unit price bid shall not be less than: \$ 595.00	\$ 595 -		\$ 8,330 -	

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			DOLLARS	CTS	DOLLARS	CTS
JB 100.1 (CE) (169)	21.0 EACH	UTILITIES CROSSING TRENCH FOR CATCH BASIN CHUTE CONNECTION AND/OR TEST PIT (TYPE .1)  Unit price bid shall not be less than: \$ 332.00	\$ 332	-	\$ 6972	-
JB 100.1 (TW) (170)	4.0 EACH	UTILITIES CROSSING TRENCH FOR CATCH BASIN CHUTE CONNECTION AND/OR TEST PIT (TYPE .1)  Unit price bid shall not be less than: \$ 550.00	\$ 550	-	\$ 2200	-
JB 100.2 (CE) (171)	2.0 EACH	UTILITIES CROSSING TRENCH FOR CATCH BASIN CHUTE CONNECTION AND/OR TEST PIT (TYPE .2)  Unit price bid shall not be less than: \$ 622.00	\$ 1500	-	\$ 3000	-
JB 100.2 (VERZ) (172)	5.0 EACH	UTILITIES CROSSING TRENCH FOR CATCH BASIN CHUTE CONNECTION AND/OR TEST PIT (TYPE .2)  Unit price bid shall not be less than: \$ 808.00	\$ 808	-	\$ 4848	-

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			DOLLARS	CTS	DOLLARS	CTS
JB 100.3 (VERZ) (173)	3.0 EACH	UTILITIES CROSSING TRENCH FOR CATCH BASIN CHUTE CONNECTION AND/OR TEST PIT (TYPE .3)  Unit price bid shall not be less than: \$ 998.00	\$ 998 -		\$ 2994 -	
JB 100.3 (CE) (174)	1.0 EACH	UTILITIES CROSSING TRENCH FOR CATCH BASIN CHUTE CONNECTION AND/OR TEST PIT (TYPE .3)	\$ 2100 -		\$ 2100 -	
JB 100.4 (VERZ) (175)	4.0 EACH	UTILITIES CROSSING TRENCH FOR CATCH BASIN CHUTE CONNECTION AND/OR TEST PIT (TYPE .4)  Unit price bid shall not be less than: \$ 1,413.00	\$ 1413 -		\$ 5652 -	
JB 101.1 (VERZ) (176)	7.0 EACH	UTILITIES CROSSING TRENCH FOR SEWERS OVER 12" TO 24" DIAMETER (TYPE. 1)  Unit price bid shall not be less than: \$ 2,364.00	\$ 2364 -		\$ 16548 -	

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			DOLLARS	CTS	DOLLARS	CTS
JB 101.1 (CE) (177)	27.0 EACH	UTILITIES CROSSING TRENCH FOR SEWERS OVER 12" TO 24" DIAMETER (TYPE .1)  Unit price bid shall not be less than: \$ 2,820.00	\$ 2820 -		\$ 76140 -	
JB 101.2 (CE) (178)	3.0 EACH	UTILITIES CROSSING TRENCH FOR SEWERS OVER 12" TO 24" DIAMETER (TYPE .2)  Unit price bid shall not be less than: \$ 3,526.00	\$ 3526 -		\$ 10578 -	
JB 101.2 (VERZ) (179)	7.0 EACH	UTILITIES CROSSING TRENCH FOR SEWERS OVER 12" TO 24" DIAMETER (TYPE .2)  Unit price bid shall not be less than: \$ 2,394.00	\$ 2394 -		\$ 16758 -	
JB 101.3 (VERZ) (180)	4.0 EACH	UTILITIES CROSSING TRENCH FOR SEWERS OVER 12" TO 24" DIAMETER (TYPE .3)  Unit price bid shall not be less than: \$ 3,309.00	\$ 3309 -		\$ 13236 -	

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			DOLLARS	CTS	DOLLARS	CTS
JB 101.4 (VERZ) (181)	3.0 EACH	UTILITIES CROSSING TRENCH FOR SEWERS OVER 12" TO 24" DIAMETER (TYPE .4)  Unit price bid shall not be less than: \$ 3,630.00	\$ 3630 -		\$ 10890 -	
JB 104.1 (VERZ) (182)	5.0 EACH	UTILITIES CROSSING TRENCH FOR SEWERS OVER 48" TO 54" DIAMETER (TYPE .1)  Unit price bid shall not be less than: \$ 4,037.00	\$ 4037 -		\$ 20185 -	
JB 104.1 (CE) (183)	2.0 EACH	UTILITIES CROSSING TRANCH FOR SEWERS OVER 48" TO 54" DIAMETER (TYPE.1)  Unit price bid shall not be less than: \$ 3,663.00	\$ 3663 -		\$ 7326 -	
JB 104.2 (CE) (184)	1.0 EACH	UTILITIES CROSSING TRENCH FOR SEWERS OVER 48" TO 54" DIAMETER (TYPE.2)  Unit price bid shall not be less than: \$ 4,312.00	\$ 6000 -		\$ 6000 -	

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			DOLLARS	CTS	DOLLARS	CTS
JB 104.2 (VERZ) (185)	3.0 EACH	UTILITIES CROSSING TRENCH FOR SEWERS OVER 48" TO 54" DIAMETER (TYPE .2)  Unit price bid shall not be less than: \$ 4,037.00	\$ 4037	-	\$ 12111	-
JB 106.1 (CE) (186)	2.0 EACH	UTILITIES CROSSING TRENCH FOR SEWERS OVER 54" TO 60" DIAMETER (TYPE .1)	\$ 4500	-	\$ 9000	-
JB 108.1 (CE) (187)	70.0 EACH	UTILITIES CROSSING TRENCH FOR WATER MAIN UP TO AND INCLUDING 12" DIAMETER (TYPE .1)  Unit price bid shall not be less than: \$ 453.00	\$ 453	-	\$ 31710	-
JB 108.1 (TW) (188)	4.0 EACH	UTILITIES CROSSING TRENCH FOR WATER MAIN UP TO AND INCLUDING 12" DIAMETER (TYPE .1)  Unit price bid shall not be less than: \$ 600.00	\$ 600	-	\$ 2400	-

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			DOLLARS	CTS	DOLLARS	CTS
JB 108.1 (VERZ) (189)	18.0 EACH	UTILITIES CROSSING TRENCH FOR WATER MAIN UP TO AND INCLUDING 12" DIAMETER (TYPE .1)  Unit price bid shall not be less than: \$ 886.00	\$ 886	-	\$ 15948	-
JB 108.2 (CE) (190)	23.0 EACH	UTILITIES CROSSING TRENCH FOR WATER MAIN UP TO AND INCLUDING 12" DIAMETER (TYPE .2)  Unit price bid shall not be less than: \$ 1,422.00	\$ 1422	-	\$ 32706	-
JB 108.2 (VERZ) (191)	9.0 EACH	UTILITIES CROSSING TRENCH FOR WATER MAIN UP TO AND INCLUDING 12" DIAMETER (TYPE .2)  Unit price bid shall not be less than: \$ 1,097.00	\$ 1097	-	\$ 9873	-
JB 108.3 (VERZ) (192)	6.0 EACH	UTILITIES CROSSING TRENCH FOR WATER MAIN UP TO AND INCLUDING 12" DIAMETER (TYPE .3)  Unit price bid shall not be less than: \$ 1,322.00	\$ 1322	-	\$ 7932	-



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			DOLLARS	CTS	DOLLARS	CTS
JB 108.4 (VERZ) (193)	3.0 EACH	UTILITIES CROSSING TRENCH FOR WATER MAIN UP TO AND INCLUDING 12" DIAMETER (TYPE .4)  Unit price bid shall not be less than: \$ 1,622.00	\$ 1622	-	\$ 4866	-
JB 109.1 (CE) (194)	25.0 EACH	UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 12" AND UP TO 24" DIAMETER (TYPE .1)  Unit price bid shall not be less than: \$ 1,169.00	\$ 1169	-	\$ 29225	-
JB 109.1 (TW) (195)	4.0 EACH	UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 12" AND UP TO 24" DIAMETER (TYPE .1)  Unit price bid shall not be less than: \$ 1,000.00	\$ 1000	-	\$ 4000	-
JB 109.1 (VERZ) (196)	12.0 EACH	UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 12" AND UP TO 24" DIAMETER (TYPE .1)  Unit price bid shall not be less than: \$ 1,003.00	\$ 1003	-	\$ 12036	-

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			DOLLARS	CTS	DOLLARS	CTS
JB 109.2 (CE) (197)	1.0 EACH	UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 12" AND UP TO 24" DIAMETER (TYPE .2)  Unit price bid shall not be less than: \$ 1,750.00	\$ 3000	-	\$ 3000	-
JB 109.2 (VERZ) (198)	4.0 EACH	UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 12" AND UP TO 24" DIAMETER (TYPE .2)  Unit price bid shall not be less than: \$ 1,345.00	\$ 1345	-	\$ 5380	-
JB 109.3 (VERZ) (199)	4.0 EACH	UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 12" AND UP TO 24" DIAMETER (TYPE .3)  Unit price bid shall not be less than: \$ 1,666.00	\$ 1666	-	\$ 6664	-
JB 111.1 (VERZ) (200)	5.0 EACH	UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 36" AND UP TO 48" DIAMETER (TYPE .1)  Unit price bid shall not be less than: \$ 1,506.00	\$ 1505	-	\$ 7525	-

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			DOLLARS	CTS	DOLLARS	CTS
JB 111.1 (CE) (201)	9.0 EACH	UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 36" AND UP TO 48" DIAMETER (TYPE . 1)  Unit price bid shall not be less than: \$ 2,195.00	\$ 2195	-	\$ 19755	-
JB 111.2 (VERZ) (202)	6.0 EACH	UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 36" AND UP TO 48" DIAMETER (TYPE .2)  Unit price bid shall not be less than: \$ 1,666.00	\$ 1666	-	\$ 9996	-
JB 111.2 (CE) (203)	3.0 EACH	UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 36" AND UP TO 48" DIAMETER (TYPE . 2)  Unit price bid shall not be less than: \$ 3,142.00	\$ 3142	-	\$ 9426	-
JB 111.3 (VERZ) (204)	5.0 EACH	UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 36" AND UP TO 48" DIAMETER (TYPE .3)  Unit price bid shall not be less than: \$ 2,007.00	\$ 2007	-	\$ 10035	-

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			DOLLARS	CTS	DOLLARS	CTS
JB 111.3 (CE) (205)	1.0 EACH	UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 36" AND UP TO 48" DIAMETER (TYPE. 3)  Unit price bid shall not be less than: \$ 4,408.00	\$ 7000 -		\$ 7000 -	
JB 111.4 (VERZ) (206)	4.0 EACH	UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 36" AND UP TO 48" DIAMETER (TYPE. 4)  Unit price bid shall not be less than: \$ 2,508.00	\$ 2508 -		\$ 10032 -	
JB 113.1 (CE) (207)	44.0 EACH	UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 54" AND UP TO 60" DIAMETER (TYPE. 1)  Unit price bid shall not be less than: \$ 2,083.00	\$ 2083 -		\$ 91652 -	
JB 113.1 (VERZ) (208)	19.0 EACH	UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 54" AND UP TO 60" DIAMETER (TYPE. 1)  Unit price bid shall not be less than: \$ 2,007.00	\$ 2007 -		\$ 38133 -	

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			DOLLARS	CTS	DOLLARS	CTS
JB 113.2 (CE) (209)	4.0 EACH	UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 54" AND UP TO 60" DIAMETER (TYPE. 2)  Unit price bid shall not be less than: \$ 3,053.00	\$ 3053	-	\$ 12212	-
JB 113.2 (VERZ) (210)	6.0 EACH	UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 54" AND UP TO 60" DIAMETER (TYPE. 2)  Unit price bid shall not be less than: \$ 2,508.00	\$ 2508	-	\$ 15048	-
JB 113.3 (CE) (211)	1.0 EACH	UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 54" AND UP TO 60" DIAMETER (TYPE. 3)  Unit price bid shall not be less than: \$ 4,408.00	\$ 7000	-	\$ 7000	-
JB 113.3 (VERZ) (212)	4.0 EACH	UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 54" AND UP TO 60" DIAMETER (TYPE. 3)  Unit price bid shall not be less than: \$ 3,010.00	\$ 3010	-	\$ 12040	-

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			DOLLARS	CTS	DOLLARS	CTS
JB 200 (VERZ) (213)	100.0 L.F.	EXTRA DEPTH EXCAVATION OF CATCH BASIN CHUTE CONNECTION PIPES  Unit price bid shall not be less than: \$ 170.00	\$ 170 -		\$ 17000 -	
JB 225 (CE) (214)	1.0 EACH	INSTALLATION AND REMOVAL OF CATCH BASINS WITH UTILITY INTERFERENCES  Unit price bid shall not be less than: \$ 4,760.00	\$ 4760 -		\$ 4760 -	
JB 225 (VERZ) (215)	5.0 EACH	INSTALLATION AND REMOVAL OF CATCH BASINS WITH UTILITY INTERFERENCES  Unit price bid shall not be less than: \$ 2,925.00	\$ 2925 -		\$ 14625 -	
JB 226 (VERZ) (216)	3.0 EACH	INSTALLATION OF CATCH BASINS WITH INTERFERENCES  Unit price bid shall not be less than: \$ 1,463.00	\$ 4000 -		\$ 12000 -	

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			DOLLARS	CTS	DOLLARS	CTS
JB 226 (CE) (217)	11.0 EACH	INSTALLATION OF CATCH BASINS WITH UTILITY INTERFERENCES  Unit price bid shall not be less than: \$ 3,447.00	\$ 3447 -		\$ 37917 -	
JB 300 (CE) (218)	27.0 C.Y.	SPECIAL CARE EXCAVATION AND BACKFILLING  Unit price bid shall not be less than: \$ 216.00	\$ 216 -		\$ 5832 -	
JB 300 (VERZ) (219)	193.0 C.Y.	SPECIAL CARE EXCAVATION AND BACKFILLING  Unit price bid shall not be less than: \$ 167.00	\$ 167 -		\$ 32231 -	
JB 301 (CE) (220)	11.0 C.Y.	SPECIAL CARE EXCAVATION AND BACKFILLING FOR OIL-O-STATIC PIPE  Unit price bid shall not be less than: \$ 266.00	\$ 266 -		\$ 2926 -	

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			DOLLARS	CTS	DOLLARS	CTS
JB 303 (CE) (221)	11.0 C.Y.	FURNISH, DELIVER AND INSTALL TYPE 3/8 CLEAN SAND BACKFILL  Unit price bid shall not be less than: \$ 36.00	\$ 50	-	\$ 550	-
JB 330E.1 (CE) (222)	773.0 L.F.	SUPPORT AND PROTECTION OF ELECTRIC AND GAS FACILITIES DURING EXCAVATION OF CITY TRENCH WHEN FACILITIES LIE WITHIN TRENCH LIMITS (TYPE .1)  Unit price bid shall not be less than: \$ 23.00	\$ 23	-	\$ 17779	-
JB 330E.2 (CE) (223)	596.0 L.F.	SUPPORT AND PROTECTION OF ELECTRIC AND GAS FACILITIES DURING EXCAVATION OF CITY TRENCH WHEN FACILITIES LIE WITHIN TRENCH LIMITS (TYPE .2)  Unit price bid shall not be less than: \$ 28.00	\$ 50	-	\$ 29800	-
JB 330E.4 (CE) (224)	114.0 L.F.	SUPPORT AND PROTECTION OF ELECTRIC AND GAS FACILITIES DURING EXCAVATION OF CITY TRENCH WHEN FACILITIES LIE WITHIN TRENCH LIMITS (TYPE .4)  Unit price bid shall not be less than: \$ 45.00	\$ 100	-	\$ 11400	-



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			DOLLARS	CTS	DOLLARS	CTS
JB 330E.6 (CE) (225)	7.0 L.F.	SUPPORT AND PROTECTION OF UTILITY STRUCTURES WITHIN THE TRENCH  Unit price bid shall not be less than: \$ 57.00	\$ 150	-	\$ 1050	-
JB 330E.7 (CE) (226)	7.0 L.F.	SUPPORT AND PROTECTION OF ELECTRIC AND GAS FACILITIES DURING EXCAVATION OF CITY TRENCH WHEN FACILITIES LIE WITHIN TRENCH LIMITS (TYPE .7)  Unit price bid shall not be less than: \$ 62.00	\$ 200	-	\$ 1400	-
JB 330T1 (TW) (227)	161.0 L.F.	SUPPORT AND PROTECTION OF COMMUNICATION UTILITY FACILITIES DURING EXCAVATION OF CITY TRENCH WHEN PARALLELING COMMUNICATION FACILITIES LIE COMPLETELY IN THE PROPOSED TRENCH  Unit price bid shall not be less than: \$ 100.00	\$ 100	-	\$ 16100	-

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			DOLLARS	CTS	DOLLARS	CTS
JB 330T1 (VERZ) (228)	580.0 L.F.	SUPPORT AND PROTECTION OF COMMUNICATION UTILITY FACILITIES DURING EXCAVATION OF CITY TRENCH WHEN FACILITIES LIE IN OR IN CLOSE PROXIMITY TO TRENCH LIMITS  Unit price bid shall not be less than: \$ 115.00	\$ 115	-	\$ 66700	-
JB 330T2.1 (VERZ) (229)	100.0 L.F.	COMMUNICATIONS FACILITY OPERATOR(S) REQUEST THE TRENCH BE WIDENED  Unit price bid shall not be less than: \$ 232.00	\$ 232	-	\$ 23200	-
JB 330T2.2 (VERZ) (230)	100.0 L.F.	COMMUNICATION FACILITY OPERATOR(S) REQUESTS THE TRENCH/SHEETING BE MODIFIED  Unit price bid shall not be less than: \$ 326.00	\$ 326	-	\$ 32600	-
JB 350 (CE) (231)	1.0 L.S.	OVERHEAD ACCOMMODATION, PROTECTION OF OH FACILITIES & APPURTENANCES  Unit price bid shall not be less than: \$ 30,000.00	\$ 30000	-	\$ 30000	-

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			DOLLARS	CTS	DOLLARS	CTS
JB 350T (VERZ) (232)	1.0 L.S.	OVERHEAD ACCOMMODATION, PROTECTION OF OH FACILITIES & APPURTENANCES  Unit price bid shall not be less than: \$ 21,605.00	\$ 21605	-	\$ 21605	-
JB 350TWC (TW) (233)	1.0 L.S.	OVERHEAD ACCOMMODATION, PROTECTION OF OVERHEAD FACILITIES, POLES AND APPURTENANCES.  Unit price bid shall not be less than: \$ 26,701.88	\$ 26701	.88	\$ 26701	.88
JB 400 (CE) (234)	93.0 C.Y.	TEST PITS FOR UTILITY FACILITIES  Unit price bid shall not be less than: \$ 185.00	\$ 185	-	\$ 17205	-
JB 400 (VERZ) (235)	20.0 C.Y.	TEST PITS FOR UTILITY FACILITIES  Unit price bid shall not be less than: \$ 218.00	\$ 218	-	\$ 4360	-

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			DOLLARS	CTS	DOLLARS	CTS
JB 401 (CE) (236)	173.0 C.Y.	TRENCH EXCAVATION FOR ADJUSTMENT OF UTILITY FACILITIES  Unit price bid shall not be less than: \$ 222.00	\$ 222	-	\$ 38406	-
JB 401 (VERZ) (237)	996.0 C.Y.	TRENCH EXCAVATION FOR ADJUSTMENT OF UTILITY FACILITIES  Unit price bid shall not be less than: \$ 228.00	\$ 228	-	\$ 227088	-
JB 402.1 (CE) (238)	232.0 L.F.	EXISTING CONCRETE ENCASED CONDUITS PLACED IN FINAL POSITION WITHOUT CONCRETE ENCASEMENT  Unit price bid shall not be less than: \$ 66.00	\$ 66	-	\$ 15312	-
JB 402.2 (CE) (239)	1,546.0 L.F.	EXISTING NON-CONCRETE ENCASED CONDUITS PLACED IN FINAL POSITION WITHOUT CONCRETE ENCASEMENT  Unit price bid shall not be less than: \$ 42.00	\$ 42	-	\$ 64932	-

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			DOLLARS	CTS	DOLLARS	CTS
JB 402T.1 (VERZ) (240)	200.0 L.F.	EXISTING CONCRETE ENCASED TELECOMMUNICATION CONDUITS PLACED IN FINAL POSITION WITHOUT CONCRETE ENCASUREMENT  Unit price bid shall not be less than: \$ 47.00	\$ 47	-	\$ 9400	-
JB 402T.1A (VERZ) (241)	200.0 L.F.	EXISTING CONCRETE ENCASED TELECOMMUNICATION CONDUITS PLACED IN FINAL POSITION WITH CONCRETE ENCASUREMENT  Unit price bid shall not be less than: \$ 53.00	\$ 53	-	\$ 10600	-
JB 402T.2 (VERZ) (242)	200.0 L.F.	EXISTING NON-CONCRETE ENCASED TELECOMMUNICATION CONDUITS PLACED IN FINAL POSITION WITHOUT CONCRETE ENCASUREMENT  Unit price bid shall not be less than: \$ 39.00	\$ 39	-	\$ 7800	-
JB 402T.2A (VERZ) (243)	8,619.0 L.F.	EXISTING OCCUPIED NON-CONCRETE ENCASED TELECOMMUNICATION CONDUITS PLACED IN FINAL POSITION WITH CONCRETE ENCASUREMENT  Unit price bid shall not be less than: \$ 44.00	\$ 44	-	\$ 379236	-

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			DOLLARS	CTS	DOLLARS	CTS
JB 402T.V1A (VERZ) (244)	200.0 L.F.	EXISTING VACANT CONCRETE ENCASED TELECOMMUNICATION CONDUITS PLACED IN FINAL POSITION WITH CONCRETE ENCASEMENT  Unit price bid shall not be less than: \$ 41.00	\$ 41	-	\$ 8200	-
JB 402T.V2A (VERZ) (245)	1,764.0 L.F.	EXISTING VACANT NON-CONCRETE ENCASED TELECOMMUNICATION CONDUITS PLACED IN FINAL POSITION WITH CONCRETE ENCASEMENT  Unit price bid shall not be less than: \$ 26.00	\$ 26	-	\$ 45864	-
JB 403T.2 (VERZ) (246)	200.0 S.F.	Placing steel protection plates for utilites facilites  Unit price bid shall not be less than: \$ 14.85	\$ 14	85	\$ 2970	-
JB 405.1 (VERZ) (247)	100.0 C.Y.	TRENCH EXCAVATION FOR INSTALLATION OF UTILITY FACILITIES WITH TOTAL DEPTHS LESS THAN FIVE FEET  Unit price bid shall not be less than: \$ 361.10	\$ 361	10	\$ 36110	-

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			DOLLARS	CTS	DOLLARS	CTS
JB 405.2 (VERZ) (248)	120.0 C.Y.	TRENCH EXCAVATION FOR INSTALLATION OF UTILITY FACILITIES WITH TOTAL DEPTHS EQUAL TO OR GREATER THAN FIVE FEET, REQUIRING SHEETING  Unit price bid shall not be less than: \$ 408.59	\$ 408	59	\$ 49030	80
JB 410.1 (CE) (249)	46.0 C.Y.	MASS TRENCH EXCAVATION FOR UTILITY FACILITIES UP TO AND INCLUDING 20% (TYPE .1)  Unit price bid shall not be less than: \$ 262.00	\$ 262	-	\$ 12052	-
JB 410.2 (CE) (250)	65.0 C.Y.	MASS TRENCH EXCAVATION FOR UTILITY FACILITIES OVER 20% AND UP TO AND INCLUDING 40% (TYPE .2)  Unit price bid shall not be less than: \$ 331.00	\$ 331	-	\$ 21515	-
JB 450.1 (CE) (251)	12.0 CREW/HR	CONSTRUCTION FIELD SUPPORT - SURVEY CREW (TYPE .1)  Unit price bid shall not be less than: \$ 257.00	\$ 257	-	\$ 3084	-

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			DOLLARS	CTS	DOLLARS	CTS
JB 450.2 (CE) (252)	260.0 CREW/HR	CONSTRUCTION FIELD SUPPORT - SMALL SIZE CREW (TYPE .2)  Unit price bid shall not be less than: \$ 252.00	\$ 252	-	\$ 65520	-
JB 450.3 (CE) (253)	364.0 CREW/HR	CONSTRUCTION FIELD SUPPORT - MEDIUM SIZE CREW (TYPE .3)  Unit price bid shall not be less than: \$ 719.00	\$ 719	-	\$ 261716	-
JB 500 (CE) (254)	99.0 L.F.	REMOVAL OF ABANDONED UTILITY CONDUITS (NON-CONCRETE ENCASED)  Unit price bid shall not be less than: \$ 3.00	\$ 3	-	\$ 297	-
JB 500 (VERZ) (255)	1,047.0 L.F.	REMOVAL OF ABANDONED UTILITY CONDUITS (NON-CONCRETE ENCASED)  Unit price bid shall not be less than: \$ 4.00	\$ 4	-	\$ 4188	-



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			DOLLARS	CTS	DOLLARS	CTS
JB 501 (VERZ) (256)	20.0 C.Y.	REMOVAL OF ABANDONED MASONRY FOR UTILITY FACILITIES  Unit price bid shall not be less than: \$ 231.00	\$ 231	-	\$ 4620	-
JB 603E.1 (CE) (257)	880.0 L.F.	INSTALL UTILITY CONDUITS PLACED IN FINAL POSITION WITHOUT CONCRETE ENCASEMENT  Unit price bid shall not be less than: \$ 4.00	\$ 4	-	\$ 3520	-
JB 603T.1 (VERZ) (258)	200.0 L.F.	INSTALL 1-EA. 2", 4" OR 1-1/4" QUAD CONDUIT (PVC OR STEEL) IN ANY COMBINATION  Unit price bid shall not be less than: \$ 5.00	\$ 5	-	\$ 1000	-
JB 603T.3 (VERZ) (259)	200.0 L.F.	INSTALL 4-EA. 4" OR 1-1/4" QUAD CONDUIT (PVC OR STEEL) IN ANY COMBINATION  Unit price bid shall not be less than: \$ 22.00	\$ 22	-	\$ 4400	-

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			DOLLARS	CTS	DOLLARS	CTS
JB 603T.5 (VERZ) (260)	200.0 L.F.	INSTALL 8-EA. 4" OR 1-1/4" QUAD CONDUIT (PVC OR STEEL) IN ANY COMBINATION  Unit price bid shall not be less than: \$ 44.00	\$ 44 -		\$ 8800 -	
JB 636 EE (CE) (261)	5.0 EACH	ADJUSTMENT OF UTILITY HARDWARE (34" TO UNDER 41" WIDTH)  Unit price bid shall not be less than: \$ 834.00	\$ 1000 -		\$ 5000 -	
JB 636 EE (VERZ) (262)	4.0 EACH	ADJUSTMENT OF UTILITY HARDWARE (34" TO UNDER 41" WIDTH)  Unit price bid shall not be less than: \$ 490.00	\$ 1000 -		\$ 4000 -	
JB 636 EG (CE) (263)	24.0 EACH	ADJUSTMENT OF UTILITY HARDWARE (41" TO UNDER 75" WIDTH)  Unit price bid shall not be less than: \$ 954.00	\$ 954 -		\$ 22896 -	

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			DOLLARS	CTS	DOLLARS	CTS
JB 636 ME (VERZ) (264)	4.0 EACH	MODIFICATION OF WORK METHODS TO ACCOMMODATE UTILITY HARDWARE (34" TO UNDER 41" WIDTH)  Unit price bid shall not be less than: \$ 150.00	\$ 750	-	\$ 3000	-
JB 636 R (VERZ) (265)	10.0 C.Y.	REPAIR TO UTILITY STRUCTURES  Unit price bid shall not be less than: \$ 211.00	\$ 211	-	\$ 2110	-
JB 636ED (CE) (266)	27.0 EACH	PRIVATELY OWNED UTILITY STRUCTURE HARDWARE ADJUSTED (30" TO UNDER 34" WIDTH)  Unit price bid shall not be less than: \$ 723.00	\$ 723	-	\$ 19521	-
JB 638 N (CE) (267)	1.0 C.Y.	INSTALLATION OF FIELD CONSTRUCTED UTILITY STRUCTURE  Unit price bid shall not be less than: \$ 914.00	\$ 914	-	\$ 914	-

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			DOLLARS	CTS	DOLLARS	CTS
JB 638 N (VERZ) (268)	10.0 C.Y.	INSTALLATION OF FIELD CONSTRUCTED UTILITIES STRUCTURES.  Unit price bid shall not be less than: \$ 2,576.00	\$ 2576 -	-	\$ 25760 -	-
JB 638 R (CE) (269)	1.0 C.Y.	BREAK OUT AND REMOVE UTILITY STRUCTURE  Unit price bid shall not be less than: \$ 729.00	\$ 729 -	-	\$ 729 -	-
JB 638 R (VERZ) (270)	10.0 C.Y.	BREAK OUT AND REMOVE UTILITY STRUCTURE  Unit price bid shall not be less than: \$ 353.00	\$ 353 -	-	\$ 3530 -	-
JB 700 (VERZ) (271)	238.0 C.Y.	SPECIAL MODIFICATION OF WORK METHODS TO ACCOMMODATE/PROTECT UNDERGROUND FACILITIES WITH LIMITED COVER  Unit price bid shall not be less than: \$ 95.00	\$ 95 -	-	\$ 22610 -	-

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			DOLLARS	CTS	DOLLARS	CTS
JB 710.1 (VERZ) (272)	100.0 L.F.	REMOVAL OF ABANDONED UTILITY STEEL/CAST IRON/ PLASTIC PIPES, UP TO AND INCLUDING 12" DIAMETER PIPE  Unit price bid shall not be less than: \$ 12.00	\$ 12	-	\$ 1200	-
JB 711 (VERZ) (273)	196.0 L.F.	USE SHEETING LINE AS FORM  Unit price bid shall not be less than: \$ 6.00	\$ 6	-	\$ 1176	-
JB 798 (VERZ) (274)	200.0 L.F.	MODIFICATION OF NON-CONCRETE YOKE TROLLEY STRUCTURES REMOVAL WHEN CROSSING UTILITY FACILITIES  Unit price bid shall not be less than: \$ 150.00	\$ 150	-	\$ 30000	-
JB 799 (VERZ) (275)	200.0 L.F.	MODIFICATION OF NON-CONCRETE TROLLEY STRUCTURES REMOVAL PARALLEL TO UTILITY FACILITIES  Unit price bid shall not be less than: \$ 32.00	\$ 32	-	\$ 6400	-

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			DOLLARS	CTS	DOLLARS	CTS
JB 803.2 (VERZ) (276)	200.0 L.F.	LINE CUT BY PNEUMATIC TOOLS IN LIEU OF SAW CUT ASSOCIATED WITH ROADWAY REMOVAL OPERATIONS  Unit price bid shall not be less than: \$ 15.80	\$ 15.80		\$ 3160	-
JB 803.2 (CE) (277)	12.0 L.F.	LINE CUT BY PNEUMATIC TOOLS IN LIEU OF SAW CUT ASSOCIATED WITH ROADWAY REMOVAL OPERATIONS (LINE CUT ANY COMBINATION OF ASPHALT AND CONCRETE ROADWAY)  Unit price bid shall not be less than: \$ 11.00	\$ 11	-	\$ 132	-
JB 900 (CE) (278)	1.0 F.S.	EXTRA UTILITY WORK COSTS ALLOWANCE  PRICE BID SHALL BE FOR THE FIXED SUM OF \$ 308,155.50  Unit price bid shall not be less than: \$ 308,155.50	\$ 308,155.50		\$ 308,155.50	
JB 900 (NGRD) (279)	1.0 F.S.	EXTRA UTILITY WORK COSTS ALLOWANCE  PRICE BID SHALL BE FOR THE FIXED SUM OF \$ 3,000.00  Unit price bid shall not be less than: \$ 3,000.00	\$ 3,000.00		\$ 3,000.00	

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			DOLLARS	CTS	DOLLARS	CTS
JB 900 (TW) (280)	1.0 F.S.	EXTRA UTILITY WORK COSTS ALLOWANCE  PRICE BID SHALL BE FOR THE FIXED SUM OF \$ 7,710.28  Unit price bid shall not be less than: \$ 7,710.28	\$ 7,710.28		\$ 7,710.28	
JB 900 (VERZ) (281)	1.0 F.S.	EXTRA UTILITY WORK COSTS ALLOWANCE  PRICE BID SHALL BE FOR THE FIXED SUM OF \$ 300,000.00  Unit price bid shall not be less than: \$ 300,000.00	\$ 300,000.00		\$ 300,000.00	
T-1.2 (282)	3.0 EACH	INSTALL TYPE "F-1" FOUNDATION	\$ 2260 -		\$ 6780 -	
T-1.20 (283)	3.0 EACH	REMOVE TYPE "M" SERIES FOUNDATION	\$ 300 -		\$ 900 -	

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			DOLLARS	CTS	DOLLARS	CTS
T-1.23 (284)	3.0 EACH	REMOVE STREET LIGHT FOUNDATION	\$ 300	-	\$ 900	-
T-1.3 (285)	3.0 EACH	INSTALL TYPE "M2-5S" FOUNDATION	\$ 2160	-	\$ 6480	-
T-2.15 (286)	1.0 EACH	REORIENT MAST ARM	\$ 570	-	\$ 570	-
T-2.16 (287)	1.0 EACH	FURNISH, INSTALL, MAINTAIN AND REMOVE TEMPORARY POST OR PYLON WITH SIGNALS	\$ 1610	-	\$ 1610	-



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			DOLLARS	CTS	DOLLARS	CTS
T-2.24 (288)	3.0 EACH	REMOVE TYPE "M" SERIES POST	\$ 1130	-	\$ 3390	-
T-2.27 (289)	3.0 EACH	REMOVE ANY OTHER TYPE POST	\$ 1130	-	\$ 3390	-
T-2.28 (290)	1.0 EACH	REMOVE MAST ARM FROM ANY POST	\$ 650	-	\$ 650	-
T-2.32 (291)	1.0 EACH	INSTALL STREET LIGHT LUMINAIRE SUPPORT ARM ON "M-2" POST	\$ 530	-	\$ 530	-

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			DOLLARS	CTS	DOLLARS	CTS
T-2.38 (292)	3.0 EACH	INSTALL ONE STREET LIGHT POLE	\$ 940	-	\$ 2970	-
T-2.4 (293)	3.0 EACH	INSTALL TYPE "M-2" POST	\$ 2840	-	\$ 8520	-
T-20021 (294)	12.0 EACH	b) FURNISH 1" ANCHOR BOLT ASSEMBLIES FOR F-1 (EACH) (4 REQUIRED PER POST)	\$ 61	-	\$ 732	-
T-20220 (295)	12.0 EACH	c) FURNISH 1-1/4" ANCHOR BOLT ASSEMBLIES FOR M-2 (EACH) (4 REQUIRED PER POST)	\$ 90	-	\$ 1080	-

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			DOLLARS	CTS	DOLLARS	CTS
T-3.1 (296)	9.0 EACH	INSTALL "ONE-WAY" SIGNAL UNIT ON MAST ARM OR TOP OF TRAFFIC POST	\$ 430	-	\$ 3870	-
T-3.18 (297)	3.0 EACH	REMOVE SIGNAL HEAD FROM ANY TYPE POST	\$ 350	-	\$ 1050	-
T-3.21 (298)	13.0 EACH	REMOVE PEDESTRIAN SIGNAL OR SIGN UNIT OR OTHER ILLUMINATED SIGNS FROM ANY POST	\$ 280	-	\$ 3640	-
T-3.26 (299)	1.0 EACH	REMOVE STREET LIGHT LUMINAIRE AND PHOTO ELECTRIC CONTROL FROM STREET LIGHT ARM	\$ 140	-	\$ 140	-

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			DOLLARS	CTS	DOLLARS	CTS
T-3.27 (300)	1.0 EACH	INSTALL STREET LIGHT LUMINAIRE AND PHOTO ELECTRIC CONTROL ON STREET LIGHT MAST	\$ 160	-	\$ 160	-
T-3.6 (301)	12.0 EACH	INSTALL PEDESTRIAN SIGNAL ON ANY TYPE POST	\$ 360	-	\$ 4320	-
T-30013L (302)	9.0 EACH	FURNISH ADJUSTABLE 3 SECTION 1-WAY, DIE CAST ALUMINUM TRAFFIC SIGNALS 8" - W/LED LENS	\$ 510	-	\$ 4590	-
T-31210 (303)	6.0 EACH	b) "HUB" ASSEMBLY *ASSEMBLY IS EQUAL TO ONE PAIR	\$ 34	-	\$ 204	-

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			DOLLARS	CTS	DOLLARS	CTS
T-31225 (304)	3.0 EACH	c) "3MS"	\$ 350 -		\$ 1050 -	
T-31351 (305)	6.0 EACH	g) "VB-2P" ASSEMBLY *ASSEMBLY IS EQUAL TO ONE PAIR	\$ 310 -		\$ 1860 -	
T-33000L (306)	12.0 EACH	FURNISH POLYCARBONATE INCANDESCENT PED SIGNAL W/LED LENS	\$ 670 -		\$ 8040 -	
T-4.22 (307)	3.0 EACH	INSTALL ANY TYPE OF ADVANCED SOLID STATE TRAFFIC SIGNAL CONTROLLER AND CABINET ON METAL POLE	\$ 1840 -		\$ 5520 -	

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			DOLLARS	CTS	DOLLARS	CTS
T-4.8 (308)	3.0 EACH	REMOVE ONE CONTROL BOX AND CONTROLLER FROM ANY POST OR SUPPORT	\$ 1130	-	\$ 3390	-
T-5.17 (309)	10.0 L.F.	FURNISH AND INSTALL 2" RIGID CONDUIT ON A POST	\$ 70	-	\$ 700	-
T-5.32 (310)	530.0 L.F.	RESTORING PERMANENT ROADWAY (INCLUDING SAWCUT)	\$ 39	-	\$ 20670	-
T-5.36 (311)	10.0 L.F.	REMOVE CONDUIT FROM POST	\$ 28	-	\$ 280	-

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			DOLLARS	CTS	DOLLARS	CTS
T-5.50 (312)	530.0 L.F.	FURNISH AND INSTALL 2" HDPE UNDERGROUND CONDUIT IN PAVED ROADWAY	\$ 90	-	\$ 47,700	-
T-5.52 (313)	270.0 L.F.	FURNISH AND INSTALL 2" HDPE UNDERGROUND CONDUIT IN UNPAVED AREA	\$ 67	-	\$ 18,090	-
T-6.1 (314)	2,000.0 L.F.	INSTALL CABLE (INCLUDES OVERHEAD)	\$ 9	-	\$ 18,000	-
T-6.10 (315)	2,500.0 L.F.	REMOVE CABLE (INCLUDES OVERHEAD)	\$ 9	-	\$ 22,500	-

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			DOLLARS	CTS	DOLLARS	CTS
T-6.2 (316)	2,500.0 L.F.	INSTALL MULTIPLE CABLE (INCLUDES OVERHEAD)	\$ 16	-	\$ 40000	-
T-60000B (317)	2,200.0 L.F.	FURNISH 2 c # 10B (BREAKDOWN = 2#10 WITH 3RD WIRE FOR GROUNDING).	\$ 3	-	\$ 6600	-
T-60040 (318)	1,000.0 L.F.	c) 7 CONDUCTOR, 14 A.W.G.	\$ 3	-	\$ 3000	-
T-60190 (319)	2,500.0 L.F.	e) 13 CONDUCTOR, 14 A.W.G.	\$ 4	-	\$ 10000	-



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DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN

Contract PIN  
Project ID

8502018WM0009C  
QED1023B

COL. 1 ITEM NUMBER (SEQUENCE NO.)	COL. 2 ENGINEER'S ESTIMATE OF QUANTITIES	COL. 3 CLASSIFICATIONS	COL. 4 UNIT PRICES (IN FIGURES)		COL. 5 EXTENDED AMOUNTS (IN FIGURES)	
			DOLLARS	CTS	DOLLARS	CTS
T-7.18 (320)	1.0 EACH	FURNISH ONE JUNCTION BOX (10" X 8" X 4")	\$ 190	-	\$ 190	-
T-7.20 (321)	1.0 EACH	INSTALL ONE JUNCTION BOX ON ANY POLE	\$ 760	-	\$ 760	-
T-8.10 (322)	4.0 EACH	RELOCATE CONCRETE PYLON WITH POST	\$ 1420	-	\$ 5680	-
T-8.8 (323)	4.0 EACH	INSTALL CONCRETE PYLON	\$ 1180	-	\$ 4720	-

02/13/2018  
2:18PM  
BID PAGES



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

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8502018WM0009C  
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			DOLLARS	CTS	DOLLARS	CTS
T-8.9 (324)	4.0 EACH	REMOVE CONCRETE PYLON	\$ 614	-	\$ 2456	-
T-81000 (325)	4.0 EACH	FURNISH CONCRETE PYLON	\$ 1430	-	\$ 5720	-
UTL-6.01.1 (326)	6.0 EACH	GAS MAIN CROSSING SEWER UP TO 24" IN DIAMETER (S6.01)  Unit price bid shall not be less than: \$ 1,040.00	\$ 1040	-	\$ 6240	-
UTL-6.01.12 (327)	3.0 EACH	GAS MAIN CROSSING WATER MAIN 48" THRU 54" IN DIAMETER (S6.01)  Unit price bid shall not be less than: \$ 810.00	\$ 810	-	\$ 2430	-

02/13/2018  
2:18PM  
BID PAGES



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Contract PIN  
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			DOLLARS	CTS	DOLLARS	CTS
UTL-6.01.13 (328)	11.0 EACH	GAS MAIN CROSSING WATER MAIN 60" IN DIAMETER (S6.01)  Unit price bid shall not be less than: \$ 990.00	\$ 990	-	\$ 10890	-
UTL-6.01.4 (329)	1.0 EACH	GAS MAIN CROSSING SEWER 48" THRU 54" IN DIAMETER (S6.01)  Unit price bid shall not be less than: \$ 2,120.00	\$ 2120	-	\$ 2120	-
UTL-6.01.8 (330)	376.0 EACH	GAS SERVICES CROSSING TRENCHES AND/OR EXCAVATIONS (S6.01)  Unit price bid shall not be less than: \$ 465.00	\$ 465	-	\$ 174840	-
UTL-6.01.9 (331)	15.0 EACH	GAS MAIN CROSSING WATER MAIN UP TO 20" IN DIAMETER (S6.01)  Unit price bid shall not be less than: \$ 485.00	\$ 485	-	\$ 7275	-

02/13/2018  
2:18PM  
BID PAGES



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Contract PIN  
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8502018WM0009C  
QED1023B

COL. 1 ITEM NUMBER (SEQUENCE NO.)	COL. 2 ENGINEER'S ESTIMATE OF QUANTITIES	COL. 3 CLASSIFICATIONS	COL. 4 UNIT PRICES (IN FIGURES)		COL. 5 EXTENDED AMOUNTS (IN FIGURES)	
			DOLLARS	CTS	DOLLARS	CTS
UTL-6.02 (332)	5.0 EACH	EXTRA EXCAVATION FOR THE INSTALLATION OF CATCH BASIN SEWER DRAIN PIPES WITH GAS- INTERFERENCES (\$6.02)  Unit price bid shall not be less than: \$ 715.00	\$ 715	-	\$ 3575	-
UTL-6.03 (333)	6,700.0 L.F.	REMOVAL OF ABANDONED GAS FACILITIES. ALL SIZES. (\$6.03)  Unit price bid shall not be less than: \$ 15.00	\$ 15	-	\$ 100500	-
UTL-6.03.1 (334)	300.0 L.F.	REMOVAL OF ABANDONED GAS FACILITIES WITH POSSIBLE COAL TAR WRAP. ALL SIZES. (FOR NATIONAL GRID WORK ONLY) (\$6.03)  Unit price bid shall not be less than: \$ 25.00	\$ 25	-	\$ 7500	-
UTL-6.04 (335)	48.0 EACH	ADJUST HARDWARE TO GRADE USING SPACER RINGS/ADAPTORS. (STREET REPAVING.) (\$6.04)  Unit price bid shall not be less than: \$ 35.00	\$ 35	-	\$ 1680	-

02/13/2018  
2:18PM  
BID PAGES



NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION  
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COL. 1 ITEM NUMBER (SEQUENCE NO.)	COL. 2 ENGINEER'S ESTIMATE OF QUANTITIES	COL. 3 CLASSIFICATIONS	COL. 4 UNIT PRICES (IN FIGURES)		COL. 5 EXTENDED AMOUNTS (IN FIGURES)	
			DOLLARS	CTS	DOLLARS	CTS
UTL-6.05 (336)	21.0 EACH	ADJUST HARDWARE TO GRADE BY RESETTING. (ROAD RECONSTRUCTION.) (S6.05)  Unit price bid shall not be less than: \$ 65.00	\$ 65	-	\$ 1365	-
UTL-6.06 (337)	1,500.0 C.Y.	SPECIAL CARE EXCAVATION AND BACKFILLING (S6.06)  Unit price bid shall not be less than: \$ 180.00	\$ 180	-	\$ 270000	-
UTL-6.07 (338)	300.0 C.Y.	TEST PITS FOR GAS FACILITIES (S6.07)  Unit price bid shall not be less than: \$ 100.00	\$ 100	-	\$ 30000	-
UTL-GCS-2WS (339)	1.0 F.S.	GAS INTERFERENCES AND ACCOMMODATIONS  PRICE BID SHALL BE FOR THE FIXED SUM OF \$ 100,000.00	\$ 100,000.00		\$ 100,000.00	

02/13/2018  
2:18PM  
BID PAGES



NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION  
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QED1023B

COL. 1 ITEM NUMBER (SEQUENCE NO.)	COL. 2 ENGINEER'S ESTIMATE OF QUANTITIES	COL. 3 CLASSIFICATIONS	COL. 4 UNIT PRICES (IN FIGURES)		COL. 5 EXTENDED AMOUNTS (IN FIGURES)	
			DOLLARS	CTS	DOLLARS	CTS
			SUB-TOTAL:		\$ 40,157,867	56
6.39 A  (340)	1.0  LUMP SUM	MOBILIZATION  PRICE BID SHALL NOT EXCEED 4% OF THE ABOVE SUB-TOTAL PRICE.			\$ 1,587,132	44
			TOTAL BID PRICE:		\$ 41,745,000	—

PLEASE BE SURE A LEGIBLE BID IS ENTERED FOR EACH ITEM.

THE BIDDER SHALL INSERT THE TOTAL BID PRICE IN  
THE BID FORM ON PAGE C-4 OF THIS BID BOOKLET.

**BID FORM**  
**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: QED1023B**

**REPLACEMENT OF TRUNK AND DISTRIBUTION WATER MAIN IN CYPRESS  
AVENUE BETWEEN WILLOUGHBY AVENUE AND  
HIMROD STREET, ETC.**

**Together With All Work Incidental Thereto  
BOROUGH OF QUEENS  
CITY OF NEW YORK  
HALCYON CONSTRUCTION CORP.  
65 MARBLE AVENUE**

Name of Bidder: \_\_\_\_\_  
PLEASANTVILLE, NEW YORK 10570

Date of Bid Opening: \_\_\_\_\_ 3/23/2018

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

Place of Business of Bidder: 65 MARBLE AVE, PLEASANTVILLE, NY

Bidder's Telephone Number: 914-741-1112 Fax Number: 914-741-2014

Bidder's E-Mail Address: SLEPOUD063@GMAIL.COM

Residence of Bidder (If Individual): \_\_\_\_\_

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

Names of Partners

Residence of Partners

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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

Organized under the laws of the State of NY

Name and Home Address of President: CHARLES CASTARELLA  
POUND RIDGE, NY

Name and Home Address of Secretary: CHARLES CASTARELLA  
POUND RIDGE, NY

Name and Home Address of Treasurer: JOSEPH ZUDZOW  
BRIARCLIFF, NY

## 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 this bid).



6. Compliance Report

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, (1) represents that his attention has been specifically drawn to Executive Order No. 50, dated, April 25, 1980, on Equal Employment Compliance of the contract, and (2) warrants that he will comply with the provisions of Executive Order No. 50. The Employment Report must be submitted as part of the bid.

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 that he will comply with: (1) the provision of the contract on providing records, Chapter 8.

7. By submission of this bid, the bidder certifies that it now has and will continue to have the financial capability to fully perform the work required for this contract. Any award of this contract will be made in reliance upon such certification. Upon request therefor, the bidder will submit written verification of such financial capability in a form that is acceptable to the department.

8. In accordance with Section 165 of the State Finance Law, the bidder agrees that tropical hardwoods, as defined in Section 165 of the State Finance Law, shall not be utilized in the performance of this Contract, except as the same are permitted by the foregoing provision of law.

9. The bidder has visited and examined the site of the work and has carefully examined the Contract in the form approved by the Corporation Counsel, and will execute the Contract and perform all its items, covenants and conditions, and will provide, furnish and deliver all the work, materials, supplies, tools and appliances for all labor and materials necessary or required for the hereinafter named work, all in strict conformity with the Contract, for the prices set forth in the Bid Schedule:

10. M/WBE UTILIZATION PLAN: By signing its bid, the bidder agrees to the Vendor Certification and Required Affirmations set forth below, unless a full waiver of the Participation Goals is granted. The Vendor Certification and Required Affirmations will be deemed to satisfy the requirement to complete Section V of Part II of Schedule B: M/WBE Utilization Plan.

**Section V: Vendor Certification and Required Affirmations:**

I hereby:

- 1) acknowledge my understanding of the M/WBE participation requirements as set forth in this Contract and the pertinent provisions of Section 6-129 of the Administrative Code of the City of New York and the rules promulgated thereunder;
- 2) affirm that the information supplied in support of the 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.

(NO TEXT ON THIS PAGE)

**BID FORM**

**PROJECT ID. : QED1023B**

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

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

\$ 41,745,000.<sup>00</sup>

*MJ 3/29/18*

**BIDDER'S SIGNATURE AND AFFIDAVIT**

**HALCYON CONSTRUCTION CORP.  
65 MARBLE AVENUE  
PLEASANTVILLE, NEW YORK 10570**

**Bidder:** \_\_\_\_\_

**By:** \_\_\_\_\_

*[Handwritten Signature]*  
(Signature of Partner or corporate officer)

**Attest:  
(Corporate Seal)**

**Secretary of Corporate Bidder**

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

*[Faint mirrored text, likely bleed-through from the reverse side]*

**BID FORM (TO BE NOTARIZED)**

**AFFIDAVIT WHERE BIDDER IS AN INDIVIDUAL**

STATE OF NEW YORK, COUNTY OF \_\_\_\_\_ ss:

being duly sworn says:

I am the person described in and who executed the foregoing bid, and the several matters therein stated are in all respects true.

\_\_\_\_\_  
(Signature of the person who signed the Bid)

Subscribed and sworn to before me this  
\_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_

\_\_\_\_\_  
Notary Public

**AFFIDAVIT WHERE BIDDER IS A PARTNERSHIP**

STATE OF NEW YORK, COUNTY OF \_\_\_\_\_ ss:

being duly sworn says:

I am a member of \_\_\_\_\_ the firm described in and which executed the foregoing bid. I subscribed the name of the firm thereto on behalf of the firm, and the several matters therein stated are in all respects true.

\_\_\_\_\_  
(Signature of Partner who signed the Bid)

Subscribed and sworn to before me this  
\_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_

\_\_\_\_\_  
Notary Public

**AFFIDAVIT WHERE BIDDER IS A CORPORATION**

STATE OF NEW YORK, COUNTY OF Westchester ss:

being duly sworn says:

I am the Charles Casanella President of the above named corporation whose name is subscribed to and which executed the foregoing bid. I reside at Pound Ridge NY. I have knowledge of the several matters therein stated, and they are in all respects true.

\_\_\_\_\_  
(Signature of Corporate Officer who signed the Bid)

Subscribed and sworn to before me this  
19th day of March 2018

\_\_\_\_\_  
Notary Public

**MARIA DIOGUARDI**  
Notary Public, State of New York  
No. 01-D16234276  
Qualified in Westchester County  
Commission Expires Jan 18, 2019

AFFIRMATION

PROJECT ID. QED-1023B

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

"NONE"

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

HALCYON CONSTRUCTION CORP.
65 MARBLE AVENUE

Full Name of Bidder: PLEASANTVILLE, NEW YORK 10570
Address:
City State Zip Code

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

[x] C - Corporation
EMPLOYER IDENTIFICATION NUMBER

13-2995431

By: [Signature]
Signature

Title: PRESIDENT

If a corporation, place seal here

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

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

(NO TEXT ON THIS PAGE)

**BID BOND 1  
FORM OF BID BOND**

**KNOW ALL MEN BY THESE PRESENTS.** That we, HALCYON CONSTRUCTION CORPORATION

65 MARBLE AVENUE, PLEASANTVILLE, NY 10570

hereinafter referred to as the "Principal", and Travelers Casualty and Surety Company of America  
One Tower Square  
Hartford, CT 06183

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

Ten Percent of Amount Bid

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

Whereas, the Principal is about to submit (or has submitted) to the City the accompanying proposal, hereby made a part hereof, to enter into a contract in writing for

PROJECT ID: QED1023B - REPLACEMENT OF TRUNK WATER MAIN IN CYPRESS AVENUE/QUEENS

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

(a) Within ten (10) days after notification by the City, execute in quadruplicate and deliver to the City all the executed counterparts of the Contract in the form set forth in the Contract Documents, in accordance with the proposal as accepted, and

(b) Furnish a performance bond and separate payment bond, as may be required by the City, for the faithful performance and proper fulfillment of such Contract, which bonds shall be satisfactory in all respects to the City and shall be executed by good and sufficient sureties, and

(c) In all respects perform the agreement created by the acceptance of said Proposal as provided in the information for Bidders, bound herewith and made a part hereof, or if the City shall reject the aforesaid Proposal, then this obligation shall be null and void; otherwise to remain in full force and effect.

ACKNOWLEDGMENT OF PRINCIPAL - IF A CORPORATION

STATE OF New York }  
COUNTY OF Westchester } ss

On this 23rd day of March, 2018 before me personally appeared Charles Pasanella to be known, who, being by me duly sworn, did depose and say; that he/she resides at Pound Ridge, NY, that he/she is the President of Halcyn Construction Corp the corporation described in and which executed the within insurance instrument; that he/she knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by the Board of Directors of said corporation; and that he/she signed his/her name thereto by like order.

MARIA DIOGUARDI  
Notary Public, State of New York  
No. 01-DI6234276  
Qualified in Westchester County  
Commission Expires Jan 18, 2019

M. DiGuardi

ACKNOWLEDGMENT OF PRINCIPAL - IF INDIVIDUAL OR FIRM

STATE OF }  
COUNTY OF } ss

On this ..... day of ..... before me personally appeared ..... to me know to be (the individual) (one of the firm of .....), described in and who executed the within instrument and he/she thereupon acknowledged to me that he/she executed the same (as the act and deed of said firm).

ACKNOWLEDGMENT OF SURETY COMPANY

STATE OF NEW YORK }  
COUNTY OF WESTCHESTER } ss

On this March 23, 2018, before me personally came WILLIAM D. HAAS to me known, who, being by me duly sworn, did depose and say; that he/she resides in RYE, NEW YORK; that he/she is the Attorney-in-Fact of the TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA the corporation described in which executed the above instrument; that he/she knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by the Board of Directors of said corporation; and that he/she signed his/her name thereto by like order; and the affiant did further depose and say that the Superintendent of Insurance of the State of New York, has, pursuant to Section 1111 of the Insurance Law of the State of New York, issued to WILLIAM D. HAAS his/her certificate of qualification evidencing the qualification of said Company and its sufficiency under any law of the State of New York as surety and guarantor, and the propriety of accepting and approving it as such; and that such certificate has not been revoked.

ALICE MCCARTHY  
NOTARY PUBLIC, State of New York  
No. 01MC5079342  
Qualified in Dutchess County  
Commission Expires June 02, 2019

Alice McCarthy  
Notary Public



TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA

HARTFORD, CONNECTICUT 06183

FINANCIAL STATEMENT AS OF DECEMBER 31, 2016

CAPITAL STOCK \$ 6,480,000

ASSETS		LIABILITIES & SURPLUS	
CASH AND INVESTED CASH	\$ 23,923,843	UNEARNED PREMIUMS	\$ 879,381,218
BONDS	3,472,067,233	LOSSES	758,091,002
STOCKS	321,318,705	LOSS ADJUSTMENT EXPENSES	224,272,289
INVESTMENT INCOME DUE AND ACCRUED	42,069,894	COMMISSIONS	39,769,777
OTHER INVESTED ASSETS	3,108,073	TAXES, LICENSES AND FEES	13,875,052
PREMIUM BALANCES	217,181,397	OTHER EXPENSES	42,557,946
NET DEFERRED TAX ASSET	69,571,988	CURRENT FEDERAL AND FOREIGN INCOME TAXES	11,351,548
REINSURANCE RECOVERABLE	23,137,819	REMITTANCES AND ITEMS NOT ALLOCATED	9,443,140
SECURITIES LENDING REINVESTED COLLATERAL ASSETS	6,917,818	AMOUNTS WITHHELD / RETAINED BY COMPANY FOR OTHERS	73,697,600
RECEIVABLES FROM PARENT, SUBSIDIARIES AND AFFILIATES	9,861,930	RETROACTIVE REINSURANCE RESERVE ASSUMED	877,878
ASSUMED REINSURANCE RECEIVABLE AND PAYABLE	593,147	POLICYHOLDER DIVIDENDS	9,082,602
OTHER ASSETS	6,199,878	PROVISION FOR REINSURANCE	3,555,080
		ADVANCE PREMIUM	1,786,287
		PAYABLE FOR SECURITIES	3,948,168
		PAYABLE FOR SECURITIES LENDING	6,817,816
		CEDED REINSURANCE NET PREMIUMS PAYABLE	28,818,735
		REINSURANCE PAYABLE ON PAID LOSSES & LOSS ADJ. EXPENSES	686,744
		OTHER ACCRUED EXPENSES AND LIABILITIES	1,349,281
		TOTAL LIABILITIES	\$ 2,107,562,218
		CAPITAL STOCK	\$ 6,480,000
		PAID IN SURPLUS	433,803,760
		OTHER SURPLUS	1,647,905,524
		TOTAL SURPLUS TO POLICYHOLDERS	\$ 2,088,189,284
TOTAL ASSETS	\$ 4,195,761,803	TOTAL LIABILITIES & SURPLUS	\$ 4,195,751,503

STATE OF CONNECTICUT )  
 COUNTY OF HARTFORD ) SS.  
 CITY OF HARTFORD )

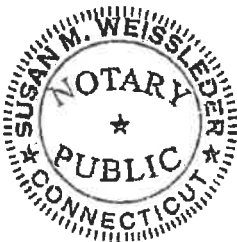
MICHAEL J. DODDY, BEING DULY SWORN, SAYS THAT HE IS SECOND VICE PRESIDENT, OF TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA, AND THAT TO THE BEST OF HIS KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT STATEMENT OF THE FINANCIAL CONDITION OF SAID COMPANY AS OF THE 31ST DAY OF DECEMBER, 2016.

*Michael J. Doddy*  
 SECOND VICE PRESIDENT

*Susan M. Weissleder*  
 NOTARY PUBLIC

SUSAN M. WEISSELER  
 Notary Public  
 My Commission Expires November 30, 2017

SUBSCRIBED AND SWORN TO BEFORE ME THIS  
 17TH DAY OF MARCH, 2017





POWER OF ATTORNEY

Farmington Casualty Company
Fidelity and Guaranty Insurance Company
Fidelity and Guaranty Insurance Underwriters, Inc.
St. Paul Fire and Marine Insurance Company
St. Paul Guardian Insurance Company

St. Paul Mercury Insurance Company
Travelers Casualty and Surety Company
Travelers Casualty and Surety Company of America
United States Fidelity and Guaranty Company

Surety Bond No. Bid Bond

Principal: HALCYON CONSTRUCTION CORPORATION

OR

Project Description: PROJECT ID: QED1023B - REPLACEMENT OF TRUNK WATER MAIN IN CYPRESS

Obligee: The City of New York

KNOW ALL MEN BY THESE PRESENTS: That Farmington Casualty Company, St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, are corporations duly organized under the laws of the State of Connecticut, that Fidelity and Guaranty Insurance Company is a corporation duly organized under the laws of the State of Iowa, and that Fidelity and Guaranty Insurance Underwriters, Inc. is a corporation duly organized under the laws of the State of Wisconsin (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint William D. Haas of the City of White Plains, State of NY, their true and lawful Attorney-In-Fact, to sign, execute, seal and acknowledge the surety bond(s) referenced above.

IN WITNESS WHEREOF, the Companies have caused this instrument to be signed and their corporate seals to be hereto affixed, this 24th day of June, 2016.

Farmington Casualty Company
Fidelity and Guaranty Insurance Company
Fidelity and Guaranty Insurance Underwriters, Inc.
St. Paul Fire and Marine Insurance Company
St. Paul Guardian Insurance Company

St. Paul Mercury Insurance Company
Travelers Casualty and Surety Company
Travelers Casualty and Surety Company of America
United States Fidelity and Guaranty Company



State of Connecticut

City of Hartford ss.

By:

Handwritten signature of Robert L. Raney, Senior Vice President

On this the 24th day of June, 2016, before me personally appeared Robert L. Raney, who acknowledged himself to be the Senior Vice President of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

In Witness Whereof, I hereunto set my hand and official seal.

My Commission expires the 30th day of June, 2021.



Handwritten signature of Marie C. Tetreault, Notary Public

This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, which resolutions are now in full force and effect, reading as follows:

**RESOLVED**, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President, any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary may appoint Attorneys-In-Fact and Agents to act for and on behalf of the Company and may give such appointee such authority as his or her certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors at any time may remove any such appointee and revoke the power given him or her; and it is

**FURTHER RESOLVED**, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President may delegate all or any part of the foregoing authority to one or more officers or employees of this Company, provided that each such delegation is in writing and a copy thereof is filed in the office of the Secretary; and it is

**FURTHER RESOLVED**, that any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-In-Fact and Agents pursuant to the power prescribed in his or her certificate or their certificates of authority or by one or more Company officers pursuant to a written delegation of authority; and it is

**FURTHER RESOLVED**, that the signature of each of the following officers: President, any Executive Vice President, any Senior Vice President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any Power of Attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-In-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding on the Company in the future with respect to any bond or understanding to which it is attached.

I, Kevin E. Hughes, the undersigned, Assistant Secretary, of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which is in full force and effect and has not been revoked.

**IN TESTIMONY WHEREOF**, I have hereunto set my hand and affixed the seals of said Companies this 23rd day of March, 2018.



Kevin E. Hughes, Assistant Secretary



To verify the authenticity of this Power of Attorney, call 1-800-421-3880 or contact us at [www.travelersbond.com](http://www.travelersbond.com). Please refer to the Attorney-In-Fact number, the above-named individuals and the details of the bond to which the power is attached.

## M/WBE PROGRAM

### M/WBE UTILIZATION PLAN

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

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

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

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

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

**NOTICE TO ALL PROSPECTIVE CONTRACTORS**

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

**ARTICLE I. M/WBE PROGRAM**

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

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

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

**PART A**

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

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

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

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

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

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

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

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

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

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

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

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

6. MBE and WBE firms must be certified by DSBS in order for the Contractor to credit such firms' participation toward the attainment of the **Participation Goals**. Such certification must occur prior to the firms' commencement of work. A list of MBE and WBE firms may be obtained from the DSBS website at [www.nyc.gov/buycertified](http://www.nyc.gov/buycertified), by emailing DSBS at [buyer@sbs.nyc.gov](mailto: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](http://www.nyc.gov/getcertified), emailing [MWBE@sbs.nyc.gov](mailto: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 [zhangji@ddc.nyc.gov](mailto:zhangji@ddc.nyc.gov) or via facsimile at (718) 391-1886. Bidders, proposers, or contractors, as applicable, who have submitted requests will receive an Agency response by no later than two (2) calendar days prior to the due date for bids, proposals, or Task Orders; provided, however, that if that date would fall on a weekend or holiday, an Agency response will be provided by close-of-business on the business day before such weekend or holiday date.

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

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

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

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



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

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

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

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

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

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

#### **PART B: MISCELLANEOUS**

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

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

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

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

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

## **ARTICLE II. ENFORCEMENT**

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

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

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

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

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

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

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

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

Tax ID #: 13-2995431

APT E- PIN #: 85018B0096

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

**Part I to be completed by contracting agency**

**Contract Overview**

<b>APT E- Pin #</b>	<u>85018B0096</u>	<b>FMS Project ID#:</b>	<u>QED-1023B</u>
<b>Project Title/ Agency PIN #</b>	<u>REPLACEMENT OF TRUNK AND DISTRIBUTION WATER MAIN IN CYPRESS AVENUE /8502018WM0009C</u>		
<b>Bid/Proposal Response Date</b>	<u>MARCH 23, 2018</u>		
<b>Contracting Agency</b>	<u>Department of Design and Construction</u>		
<b>Agency Address</b>	<u>30-30 Thomson Ave.</u>	<b>City</b>	<u>Long Island City</u> <b>State</b> <u>NY</u> <b>Zip Code</b> <u>11101</u>
<b>Contact Person</b>	<u>Emmanuel K. Charles</u>	<b>Title</b>	<u>MWBE Compliance Analyst</u>
<b>Telephone #</b>	<u>(718) 391-1450</u>	<b>Email</b>	<u>charlesem@ddc.nyc.gov</u>

**Project Description** (attach additional pages if necessary)

**PROJECT ID: QED1023B**

**REPLACEMENT OF TRUNK AND DISTRIBUTION WATER MAIN IN CYPRESS AVENUE BETWEEN WILLOUGHBY AVENUE AND HIMROD STREET, ETC.**

**INCLUDING SEWER, STREET LIGHTING, TRAFFIC SIGNAL AND PRIVATE UTILITIES WORK**

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

**M/WBE Participation Goals for Services**

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

**Prime Contract Industry:** Construction

Group	Percentage
Unspecified*	11 %
or	
Black American	UNSPECIFIED*
Hispanic American	UNSPECIFIED*
Asian American	UNSPECIFIED*
Women	UNSPECIFIED*
<b>Total Participation Goals</b>	<b>11 %</b>

Line 1

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

Tax ID #: 13-2995431

APT E-  
PIN #: 85018B0096

**SCHEDULE B - Part II: M/WBE Participation Plan**

Part II to be completed by the bidder/proposer.

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

**Section I: Prime Contractor Contact Information**

Tax ID #	<u>13-2995431</u>	FMS Vendor ID #	<u>0000806638</u>
Business Name	<u>HALCYON CONSTRUCTION CORP.</u>	Contact Person	<u>SAL LEOPOLDO</u>
Address	<u>65 MARBLE AVENUE</u>		
Telephone #	<u>914-741-1112</u>	Email	<u>SLEOPOLDO63@GMAIL.COM</u>
	<u>PLEASANTVILLE, NEW YORK 10570</u>		

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

**PRIME CONTRACTOR ADOPTING AGENCY M/WBE PARTICIPATION GOALS**

<input type="checkbox"/> For Prime Contractors (including Qualified Joint Ventures and M/WBE firms) adopting Agency M/WBE Participation Goals.	Total Bid/Proposal Value	Agency Total Participation Goals (Line 1, Page 13)	Calculated M/WBE Participation Amount
Calculate the total dollar value of your total bid that you agree will be awarded to M/WBE subcontractors for services and/or credited to an M/WBE prime contractor or Qualified Joint Venture.  Please review the Notice to Prospective Contractors for more information on how to obtain credit for M/WBE participation.	<u>41,745,000</u>	<u>11%</u>	<u>4,591,950</u>
	\$	X	= \$ Line 2

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

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

Tax ID #: 132995431

APT E-  
PIN #: 85018B0096

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

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

MBE  WBE

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

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

**Section IV: General Contract Information**

What is the expected percentage of the total contract dollar value that you expect to award in subcontracts for services, regardless of M/WBE status? % 11

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

✓ Scopes of Subcontract Work

1. ASP. PAVING OVERLAY	\$ 1,500,000
2. TREE WORK	\$ 200,000
3. PAVEMENT MARKINGS	\$ 20,000
4. CROSSING GUARD	\$ 300,000
5. RODENT CONTROL	\$ 100,000
6. DISP. OF CONTAMIN. SOIL	\$ 1,000,000
7. STEEL PIPE JOINT WELDING	\$ 400,000
8. TRUCKING	\$ 875,000
9. ELECTRICAL	\$ 100,000
10. LAB TECH FOR COMPACTION	\$ 100,000
11.	
12.	

13. ALL ABOVE TO BE SUBCONTRACTED  
14. TO M/WBE. PLEASE NOTE ITEM # 7,  
15. STEEL PIPE JOINT WELDING WE HAVE  
16. BEEN UNABLE TO LOCATE AN APPROVED  
17. M/WBE CONTRACTOR.

ALL WORK TO BE COMPLETE BETWEEN  
12/2018 6/2022.


Tax ID #: 13-2995431

APT E-  
PIN #: 85018B0096

**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		Date	<u>3/19/2018</u>
Print Name	<u>SAL LEOPOLDO</u>	Title	<u>N.P.</u>

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

**Contract Overview**

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

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

\_\_\_\_\_ % Agency M/WBE Participation Goal

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

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

**Basis for Waiver Request: Check appropriate box & explain in detail below (attach additional pages if needed)**

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

**References**

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

<p><b>CONTRACT NO.</b> _____</p> <p><b>Total Contract Amount \$</b> _____</p> <p><b>Item of Work Subcontracted and Value of subcontract</b> _____</p>	<p><b>AGENCY</b> _____</p> <p><b>Total Amount Subcontracted \$</b> _____</p> <p><b>Item of Work Subcontracted and Value of subcontract</b> _____</p>	<p><b>DATE COMPLETED</b> _____</p> <p>_____</p> <p>_____</p>
<p><b>CONTRACT NO.</b> _____</p> <p><b>Total Contract Amount \$</b> _____</p> <p><b>Item of Work Subcontracted and Value of subcontract</b> _____</p>	<p><b>AGENCY</b> _____</p> <p><b>Total Amount Subcontracted \$</b> _____</p> <p><b>Item of Work Subcontracted and Value of subcontract</b> _____</p>	<p><b>DATE COMPLETED</b> _____</p> <p>_____</p> <p>_____</p>
<p><b>CONTRACT NO.</b> _____</p> <p><b>Total Contract Amount \$</b> _____</p> <p><b>Item of Work Subcontracted and Value of subcontract</b> _____</p>	<p><b>AGENCY</b> _____</p> <p><b>Total Amount Subcontracted \$</b> _____</p> <p><b>Item of Work Subcontracted and Value of subcontract</b> _____</p>	<p><b>DATE COMPLETED</b> _____</p> <p>_____</p> <p>_____</p>



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.)

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

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

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

**VENDOR CERTIFICATION:** I hereby affirm that the information supplied in support of this waiver request is true and correct, and that this request is made in good faith.

**Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_  
**Print Name:** \_\_\_\_\_ **Title:** \_\_\_\_\_

*Shaded area below is for agency completion only*

**AGENCY CHIEF CONTRACTING OFFICER APPROVAL**  
**Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**CITY CHIEF PROCUREMENT OFFICER APPROVAL**  
**Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Waiver Determination**  
 Full Waiver Approved:   
 Waiver Denied:   
 Partial Waiver Approved:   
 Revised Participation Goal: \_\_\_\_\_ %

## APPRENTICESHIP PROGRAM REQUIREMENTS

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

YES                       NO

### (1) Apprenticeship Program Requirements

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

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

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

### (2) Apprenticeship Program Questionnaire

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

APPRENTICESHIP PROGRAM QUESTIONNAIRE ("APQ")

Bidder Name: HALCYON CONST. CORP.  
Project ID Number: QED 1023 B

The Bidder MUST complete, sign, and submit this Apprenticeship Program Questionnaire with its bid.

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

YES  NO

2. Has/have the bidder's Apprenticeship Program agreement(s) been registered with, and approved by the New York State Commissioner of Labor ("NYSDOL Commissioner")?

YES  NO

3. Has/have the bidder's Apprenticeship Program successfully passed the two-year Probation period following its initial registration with the New York State Department of Labor ("NYSDOL")?

YES  NO

If the answers to Questions 1, 2, and 3 are "Yes". The bidder shall, in the space below (and/or attached herewith where applicable), provide the contact information for such Apprenticeship Program(s) as well as information demonstrating that such Apprenticeship Program(s) have passed the two-year Probation period following its initial registration with the NYSDOL. (The bidder may attach additional pages if necessary).

- Where the bidder directly sponsors any such apprenticeship Program(s), the bidder shall provide the following:
  - The trade classification(s) covered by such program(s), and the date(s) such program(s) was/were approved by the NYSDOL Commissioner; and/or
  - A copy of a letter(s) from the NYSDOL, on NYSDOL's letterhead, executed by an official thereof, which verifies/verify the trade classification(s) covered by such program(s), and the date(s) such program(s) was/were approved by the NYSDOL Commissioner and the Active status of such program(s).
  
- Where the bidder participates in any such Apprenticeship Program(s) through its membership in an employer organization(s) that directly sponsors such program(s) or where the employer association(s) participates in such program(s) through collective bargaining, the bidder shall provide the following:
  - The contact information for the employer organization(s), and the apprenticeable trade(s) covered pursuant to the bidder's affiliation therewith, and the date such program(s) was/were approved by the NYSDOL Commissioner; or
  - A letter(s) from such employer organization(s), on letterhead of such organization(s), executed by an officer, delegate or official thereof, which verifies/verify the trade classification(s) covered by such program(s) was/were approved by the NYSDOL Commissioner, and that the bidder is both a member in good standing of the identified employer organization and is subject to the provisions of the Apprenticeship Program agreement(s) sponsored thereby.

**APPRENTICESHIP PROGRAM QUESTIONNAIRE ("APQ")**

Project ID Number: QED - 1023B

- Where the bidder participates in any such Apprenticeship Programs through collective bargaining agreements, the bidder shall provide the following:
  - The contact information for such collective bargaining entity(ies) and the apprenticeable trade(s) covered pursuant to the bidder's affiliation therewith;
  - A letter(s) from such collective bargaining entity(ies), on letterhead of such entity(ies), executed by an officer, delegate or official thereof, which verifies/verify the bidder's status as a signatory/participant in good standing to such collective bargaining entity(ies) Apprenticeship Program Agreements.

*" SEE ATTACHED UNION LETTERS "*

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HALCYON CONSTRUCTION CORP.

65 MARBLE AVENUE

Bidder: PLEASANTVILLE, NEW YORK 10570

By: [Signature] Title: V.P.  
 (Signature of Partner or Corporate Officer)

Date: 3/19/2018

**LABORERS' LOCAL UNION 1010**

17-20 Whitestone Expressway, Suite 200 · Whitestone, NY 11357  
Phone: (718)886-3310 · Fax: (718)886-8885

April 10<sup>th</sup>, 2018

**Halcyon Construction Corp.**  
65 Marble Avenue  
Pleasantville, NY 10570

Dear Joseph Zuzzolo

This letter is to certify that ***Halcyon Construction Corp.*** of 65 Marble Avenue, Pleasantville, NY 10570 has a "CBA" with Local 1010 with an expiration date of June 30<sup>th</sup>, 2018 with **Joseph Zuzzolo** signing as the President of the entity.

This will confirm that Local 1010 Apprentice, Skill Improvement and Training Fund to which your entity will contribute, sponsors the Local 1010 Pavers Joint Apprenticeship Committee. The Local 1010 JAC is a New York State Department of Labor Approved apprenticeship program registered under Sponsor#12607 and ATP Code 18-514 for Skilled Construction Laborers.

If you have any questions, please contact me at the Union Hall.

Very truly yours,



Francisco Fernandez  
JAC Union Trustee,  
Treasurer, Laborers' Local Union 1010

**LIUNA!**

For More Power



**INTERNATIONAL UNION OF OPERATING ENGINEERS**  
AFFILIATED WITH THE A.F.L.-C.I.O.  
**LOCAL UNION 14-14B**

01000000 00

**CHRISTOPHER T. CONFREY**  
President

**KENNETH B. KLEMENS, JR.**  
Vice-President

**JOHN R. POWERS**  
Rec./Corr. Secretary

**THOMAS ROEMER, JR.**  
Treasurer

**HUGH MANLEY**  
Financial Secretary

**EDWIN L. CHRISTIAN**  
Business Manager

*BUSINESS REPRESENTATIVES*  
**CHRISTOPHER T. CONFREY**  
**JOHN R. POWERS**  
**HUGH MANLEY**  
**KENNETH B. KLEMENS, JR.**

April 10, 2018

To Whom It May Concern:

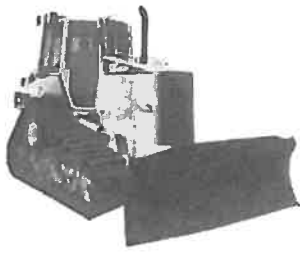
Kindly allow this letter to confirm that Halcyon Construction Corp. is signatory to a current collective bargaining agreement with the International Union of Operating Engineers, Local 14-14B, AFL-CIO. The Operating Engineers Local 14-14B Joint Apprenticeship Committee is a registered apprenticeship program recognized by the New York State Department of Labor that has been providing apprentice opportunities for registered apprentices in accordance with the training standards approved by the Department of Labor since May 1, 1994.

In the event that you have any questions, please contact our office.

Very truly yours,

Edwin L. Christian  
Business Manager

ELC:cp



International Union of Operating Engineers  
Local 15, 15A, 15B, 15C & 15D

# training center



APPRENTICESHIP • SKILL IMPROVEMENT & SAFETY  
P.O. BOX 489 • STATION B • HOWARD BEACH, NEW YORK 11414  
(718) 835-0400 • FAX (718) 835-2210

UNION TRUSTEES  
JAMES T. CALLAHAN  
THOMAS A. CALLAHAN

  
**PATRICK J. PETERSON**  
DIRECTOR

EMPLOYER TRUSTEES  
MICHAEL SALGO  
DENISE RICHARDSON

April 10, 2018

To Whom It May Concern:

Re: Halcyon Construction Corp

Please be advised that The International Union of Operating Engineers Local 15 has an Apprentice program registered with the New York State Department of Labor which meets the standards established by the Commissioner of Labor and the United States Department of Labor, Bureau of Apprenticeship Training in accordance with (29CFR29).

The I.U.O.E. Local 15 Apprentice Training Program is a joint apprenticeship committee operated program. The committee is composed of an equal number of representatives of the employers and of the employees represented by a bona fide collective bargaining agreement and has been established to conduct, operate, and administer the apprenticeship program.

Since the above-mentioned employer is a signatory to our agreements, they are therefore participants in our apprenticeship-training program.

If any further information is needed, please do not hesitate to contact me at the above number.

Sincerely,

Marie Sullivan  
Coordinator of Training

MS/da

**LIUNA**  
***LOCAL 731 Training Fund***

3411 35<sup>th</sup> Avenue  
Astoria, NY 11106

Tel: 718-752-9860 • Fax: 718-752-9880

April 10, 2018

Halcyon Construction, Corp.

To Whom It May Concern:

This letter is to confirm that, ***Halcyon Construction, Corp.*** is in good standing with **UNION LOCAL 731** and has a signed agreement with Union Local 731. Union Local 731 has an Apprenticeship Program approved by the New York State Department of Labor.

Sincerely,



Michael Truscello  
Apprenticeship Coordinator

MT/dvd



## 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:** HALCYON CONSTRUCTION CORP.  
65 MARBLE AVENUE  
PLEASANTVILLE, NEW YORK 10570

Company Name: \_\_\_\_\_

DDC Project Number: QEP-1023B

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

Company has previously worked for DDC  YES \_\_\_\_\_ NO

**2. Type(s) of Construction Work**

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

**3. Experience Modification Rate:**

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

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

YEAR	INTRASTATE RATE	INTERSTATE RATE
<u>2017</u>	<u>.94</u>	<u>/</u>
<u>2016</u>	<u>.94</u>	<u>/</u>
<u>2015</u>	<u>1.00</u>	<u>/</u>

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

**4. OSHA Information:**

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

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

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

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

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

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

YEAR	TOTAL NUMBERS OF HOURS WORKED BY EMPLOYEES	INCIDENT RATE
<u>2017</u>	<u>161,373</u>	<u>8.68</u>
<u>2016</u>	<u>169,815</u>	<u>7.07</u>
<u>2015</u>	<u>157,070</u>	<u>3.82</u>

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

General Building Construction	8.5
Residential Building Construction	7.0
Nonresidential Building Construction	10.2
Heavy Construction, except building	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	10.5
Carpentry and Floor Work	12.2
Roofing, Siding, and Sheet Metal	10.3
Concrete Work	8.6
Specialty Trade Contracting	8.6

**5. Safety Performance on Previous DDC Project(s)**

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

DDC Project Number(s): HEP552, MED600B, MED606R12

YES  NO Accident on previous DDC Project(s).

DDC Project Number(s): HEP552, MED600B, MED606R12

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

DDC Project Number(s): \_\_\_\_\_

Date: 3/19/18

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

Title: V.P.

## 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 27 through 29 of this Bid Booklet. The Project Reference Form consists of 3 parts: (1) Contracts Completed by the Bidder, (2) Contracts Currently Under Construction by the Bidder, and (3) Pending Contracts Not Yet Started by the Bidder.
- (B) **Copy of License:** If required, the bidder must submit a copy of the license under which the bidder will be performing the work. Such license must clearly show the following: (1) Name of the Licensee, (2) License Number, and (3) Expiration date of the License. A copy of the license will be required from bidders for the following contracts: Plumbing Work, Electrical Work and Asbestos Abatement.
- (C) **Financial Information:** If required, the bidder must submit the financial information described below:
- (1) **Audited Financial Statements:** Financial statements (Balance Sheet and Income Statement) of the entity submitting the bid, as audited by an independent auditor licensed to practice as a certified public accountant (CPA). Audited financial statements for the three most recent fiscal years must be submitted. Each such financial statement must include the auditor's standard report.

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

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

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

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

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

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

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

**A. PROJECT REFERENCES – SIMILAR CONTRACTS COMPLETED BY THE BIDDER**

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

Project & Location	Contract Type	Contract Amount (\$000)	Date Completed	Owner Reference & Tel. No.	Architect/Engineer Reference & Tel. No. if different from owner
NYCDDC Contract MED606RR Grand Street, Manhattan	Watermain Sewer Highway	\$65M	October 2016	NYCDDC Mr. Shah Jaromi	
NYCDDC Contract MED600B E58th Street Manhattan	Watermain Sewer Highway	\$20M	December 2016	NYCDDC Mr. Shah Jaromi	
NYCDDC Contract MED600 E59th Street, Manhattan	Watermain Highway	\$30M	January 2013	NYCDDC Mr. Shah Jaromi	
NYCDDC Contract GE-349 Various Location NYC	Emergency WM Repair	\$10M	July 2014	NYCDEP Mr. Tasos Georgellis	

**B. PROJECT REFERENCES - CONTRACTS CURRENTLY UNDER CONSTRUCTION BY THE BIDDER**

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

Project & Location	Contract Type	Contract Amount (\$000)	Subcontracted to Others (\$000)	Uncompleted Portion (\$000)	Date Scheduled to Complete	Owner Reference & Tel. No.	Architect/Engineer Reference & Tel. No. if different from owner
NYCDDC HED553 Southern Blvd, Bronx	Watermain Sewer Highway	\$46M	\$5M	\$25M	June 2019	NYCDDC Mr. Dickens Charles	
NYCDDC QED1014 Crescent Street, Queens	Watermain Sewer	\$22M	\$2M	\$18M	June 2019	NYCDDC Mr. Lambert Monah	
NYCDEP BB217 Bowery Bay	Mechanical Equipment	\$8M	\$5M	\$2M	June 2018		
NYCDEP Various Location NYC	Mechanical Piping	\$3	\$2.5M	\$1.5M	December 2018		

**C. PROJECT REFERENCES - PENDING CONTRACTS NOT YET STARTED BY THE BIDDER**

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

Project & Location	Contract Type	Contract Amount (\$000)	Date Scheduled to Start	Owner Reference & Tel. No.	Architect/Engineer Reference & Tel. No. if different from owner
"NONE"					



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

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

Contractor: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

Telephone Number: \_\_\_\_\_

Name and Title of Signatory: \_\_\_\_\_  
\_\_\_\_\_

Contracting Agency or Owner: \_\_\_\_\_

Project Number: \_\_\_\_\_

Proposed Contract Amount: \_\_\_\_\_

Description and Address of Proposed Contract: \_\_\_\_\_

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

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

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

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

(NO TEXT ON THIS PAGE)

**VENDEX COMPLIANCE**

(A) **Vendex Fees:** Pursuant to Procurement Policy Board Rule 2-08(f)(2), the contractor will be charged a fee for the administration of the VENDEX system, including the Vendor Name Check process, if a Vendor Name Check review is required to be conducted by the Department of Investigation. The contractor shall also be required to pay the applicable required fees for any of its subcontractors for which Vendor Name Check reviews are required. The fee(s) will be deducted from payments made to the contractor under the contract. For contracts with an estimated value of less than or equal to \$1,000,000, the fee will be \$175 per Vendor Name Check review. For contracts with an estimated value of greater than \$1,000,000, the fee will be \$350 per Vendor Name Check review.

(B) **Confirmation of Vendex Compliance:** The Bidder shall submit this Confirmation of Vendex Compliance to the Department of Design and Construction, Contracts Section, 30-30 Thomson Avenue – First Floor, Long Island City, NY 11101.

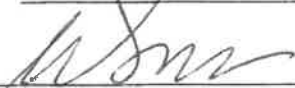
**Bid Information:** The Bidder shall complete the bid information set forth below.

**HALCYON CONSTRUCTION CORP.**  
Name of Bidder: 65 MARBLE AVENUE  
Bidder's Address: PLEASANTVILLE, NEW YORK 10570  
Bidder's Telephone Number: 914-741-1112  
Bidder's Fax Number: 914-741-2014  
Date of Bid Opening: ~~3/23/2018~~ 3/23/2018  
PROJECT ID: CPED 1023 B

**Vendex Compliance:** To demonstrate compliance with Vendex requirements, the Bidder shall complete either Section (1) or Section (2) below, whichever applies.

(1) **Submission of Vendex Questionnaires to MOCS:** By signing in the space provided below, the Bidder certifies that as of the date specified below, the Bidder has submitted Vendex Questionnaires to the Mayor's Office of Contract Services, Attn: VENDEX, 253 Broadway, 9<sup>th</sup> Floor, New York, New York 10007.

Date of Submission: 11/2/2017

By:   
(Signature of Partner or corporate officer)

Print Name: CHARLES CASARELLA

(2) **Submission of Certification of No Change to DDC:** By signing in the space provided below, the Bidder certifies that it has read the instructions in a "Vendor's Guide to Vendex" and that such instructions do not require the Bidder to submit Vendex Questionnaires. The Bidder has completed TWO ORIGINALS of the Certification of No Change set forth on the next page of this Bid Booklet.

By:   
(Signature of Partner or corporate officer)

Print Name: CHARLES CASARELLA

(NO TEXT ON THIS PAGE)

# Certificate of No Change Form

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

I, CHARLES CASARENA, being duly sworn, state that I have read  
*Enter Your Name*

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

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

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

## Vendor Questionnaire *This section is required.*

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

Name of Submitting Entity: HALCYON CONSTRUCTION CORP.  
65 MARBLE AVENUE  
PLEASANTVILLE, NEW YORK 10570

Vendor's Address: \_\_\_\_\_

Vendor's EIN or TIN: 13-2995431 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 for the submitting vendor: 11/2/2017

Signature date on change submission for the submitting vendor: 11/2/2017

# Principal Questionnaire

This section refers to the most recent principal questionnaire submissions.



	Principal Name	Date of signature on last full Principal Questionnaire	Date(s) of signature on submission of change
1	CHARLES CASTRELLA	11/2/2017	11/2/2017
2	JOSEPH ZURRO	11/2/2017	11/2/2017
3			
4			
5			
6			

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

## Certification This section is required.

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

Certified By:

CHARLES CASTRELLA

Name (Print)

PRESIDENT

Title

HALCYON CONSTRUCTION CORP.  
65 MARBLE AVENUE

Name of Submitting Party PEESANTVILLE, NEW YORK 10570

Signature

3-19-18  
Date

Notarized By:

MARIA DIOGUARDI  
Notary Public, State of New York  
No. 01-D16234276  
Qualified in Westchester County  
Commission Expires Jan 18, 2019

Notary Public

County License Issued

License Number

Sworn to before me on: 3-19-18  
Date

## **IRAN DIVESTMENT ACT COMPLIANCE RIDER**

### **FOR NEW YORK CITY CONTRACTORS**

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

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

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

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

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

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

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

[Please Check One]

**BIDDER'S CERTIFICATION**

- By submission of this bid or proposal, each bidder/proposer and each person signing on behalf of any bidder/proposer certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief, that each bidder/proposer is not on the list created pursuant to paragraph (b) of subdivision 3 of Section 165-a of the State Finance Law.
  
- I am unable to certify that my name and the name of the bidder/proposer does not appear on the list created pursuant to paragraph (b) of subdivision 3 of Section 165-a of the State Finance Law. I have attached a signed statement setting forth in detail why I cannot so certify.



\_\_\_\_\_  
SIGNATURE

CHARLES CASAREUA

\_\_\_\_\_  
PRINTED NAME

PRESIDENT

\_\_\_\_\_  
TITLE

Sworn to before me this  
19<sup>th</sup> day of Mar 2018



\_\_\_\_\_  
Notary Public

Dated: 3-19-18

MARIA DIOGUARDI  
Notary Public, State of New York  
No. 01-D16234276  
Qualified in Westchester County  
Commission Expires Jan 18, 2019



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

**CONSTRUCTION**

**EMPLOYMENT**

**REPORT**

**(NO TEXT ON THIS PAGE)**

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	Construction Employment Report
City and state funded	Prime contractor	\$1,000,000 or greater	
	Subcontractor	\$750,000 or greater	
			Less than \$750,000

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:

1. 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.

2. 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. Copies 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 complainant(s)	4. Was an investigation conducted? Y/N	5. Current status of the disposition
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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:

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

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  Subcontractor
- 1a. Are MWBE goals attached to this project? Yes  No
2. Please check one of the following if your firm would like information on how to certify with the City of New York as a:  
 Minority Owned Business Enterprise  
 Women Owned Business Enterprise  
 Disadvantaged Business Enterprise  
 Locally Based Business Enterprise  
 Emerging Business Enterprise
- 2a. If you are certified as an MBE, WBE, LBE, EBE or DBE, what city/state agency are you certified with? \_\_\_\_\_ Are you DBE certified? Yes  No
3. Please indicate if you would like assistance from SBS in identifying certified MWBEs for contracting opportunities: Yes  No
4. Is this project subject to a project labor agreement? Yes  No
5. Are you a Union contractor? Yes  No  If yes, please list which local(s) you affiliated with ISSB, 731, 15, 14, 1010
6. Are you a Veteran owned company? Yes  No

**PART I: CONTRACTOR/SUBCONTRACTOR INFORMATION**

7. 13-2995431 SUEPOLPO63@GMAIL.COM  
Employer Identification Number or Federal Tax I.D. Email Address
8. HALCYON CONSTRUCTION CORP.  
Company Name 65 MARBLE AVENUE  
PLEASANTVILLE, NEW YORK 10570
9. Company Address and Zip Code
10. CHARLES CASARELLA 914 241-1112  
Chief Operating Officer Telephone Number
11. "SAME"  
Designated Equal Opportunity Compliance Officer Telephone Number  
(If same as Item #10, write "same")
12. "SAME"  
Name of Prime Contractor and Contact Person  
(If same as Item #8, write "same")

13. Number of employees in your company: 80

14. Contract information:

(a) NYCDDC Contracting Agency (City Agency) (b) - Contract Amount

(c) QED-1023B Procurement Identification Number (PIN) (d) - Contract Registration Number (CT#)

(e) 11/2018 Projected Commencement Date (f) 11/2021 Projected Completion Date

(g) Description and location of proposed contract:  
INSTALLATION OF TRUNK W.M.  
IN CYPRESS AVE, QNS

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

If yes, attach a copy of certificate.

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

If yes, attach a copy of certificate.

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

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

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

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

If yes,



(a) Name and address of OFCCP office.

\_\_\_\_\_  
\_\_\_\_\_

(b) Was a Certificate of Equal Employment Compliance issued within the past 36 months?

Yes \_\_\_ No

If yes, attach a copy of such certificate.

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

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

(d) Were any deficiencies found? Yes \_\_\_ No

If yes, attach a copy of such findings.

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

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

## PART II: DOCUMENTS REQUIRED

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

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

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

- (a) Prior to job offer Yes \_\_\_ No
- (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.

HALCYON CONSTRUCTION CORP.  
FILED AT 65 MARBLE AVENUE  
PLEASANTVILLE, NEW YORK 10570

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).

---

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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).

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SIGNATURE PAGE

I, (print name of authorized official signing) CHARLES CASARELLA 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.

HALCYON CONSTRUCTION CORP.  
65 MARBLE AVENUE

Contractor's Name PLEASANTVILLE, NEW YORK 10570

CHARLES CASARELLA PRESIDENT  
Name of person who prepared this Employment Report Title

CHARLES CASARELLA PRESIDENT  
Name of official authorized to sign on behalf of the contractor Title

914-744-1112  
Telephone Number

[Signature] \_\_\_\_\_  
Signature of authorized official Date

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

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

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

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

Only original signatures accepted.

Sworn to before me this 11th day of March 2018

[Signature] 3-19-18  
Notary Public Authorized Signature Date

MARIA DIOGUARDI  
Notary Public, State of New York  
No. 01-D16234276  
Qualified in Westchester County  
Commission Expires Jan 18, 2019

**FORM A. HONOLULU BID INFORMATION: USE OF SUBCONTRACT TRADES**

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

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

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

\*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:	MALES					FEMALES				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	White Non-Hisp.	Black Non-Hisp.	White Non-Hisp.	Asian	Native Amer.	White Non-Hisp.	Black Non-Hisp.	Hisp.	Asian	Native Amer.
J	10	3	16							
H										
A										
TRN										
TOT	10	3	16							

Trade: Apprentice

Union Affiliation, if applicable: 7311010

Total (Col. #1-10): \_\_\_\_\_

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

Total Female (Col. #6 - 10): \_\_\_\_\_

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

UNIONS

Trade:

D.P. ENG.

Union Affiliation, if applicable

0: 14/15

Total (Col. #1-10):

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

Total Female  
(Col. #6 - 10):

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

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

UNIONS

**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.

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

Trade: TEMPERMAN

Union Affiliation, if applicable  
1556

Total (Col. #1-10): \_\_\_\_\_

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

Total Female (Col. #6 - 10): \_\_\_\_\_

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



**FORM C: CURRENT WORKFORCE**

Trade: \_\_\_\_\_

Union Affiliation, if applicable \_\_\_\_\_

Total (Col. #1-10): \_\_\_\_\_

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

Total Female  
(Col. #6 - 10): \_\_\_\_\_

**MALES** **FEMALES**

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

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

(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 MWBE goals attached to this project? Yes \_\_\_\_\_ No \_\_\_\_\_

2. Please check one of the following if your firm would like information on how to certify with the City of New York as a:

Minority Owned Business Enterprise  
 Women Owned Business Enterprise  
 Disadvantaged Business Enterprise

Locally Based Business Enterprise  
 Emerging Business Enterprise

2a. If you are certified as an MBE, WBE, LBE, EBE or DBE, what city/state agency are you certified with? \_\_\_\_\_ Are you DBE certified? Yes \_\_\_\_\_ No \_\_\_\_\_

3. Please indicate if you would like assistance from SBS in identifying certified MWBEs for contracting opportunities: Yes \_\_\_\_\_ No \_\_\_\_\_

4. Is this project subject to a project labor agreement? Yes \_\_\_\_\_ No \_\_\_\_\_

5. Are you a Union contractor? Yes \_\_\_\_\_ No \_\_\_\_\_ If yes, please list which local(s) you affiliated with \_\_\_\_\_

6. Are you a Veteran owned company? Yes \_\_\_\_\_ No \_\_\_\_\_

**PART I: CONTRACTOR/SUBCONTRACTOR INFORMATION**

7. \_\_\_\_\_  
Employer Identification Number or Federal Tax I.D. \_\_\_\_\_ Email Address \_\_\_\_\_

8. \_\_\_\_\_  
Company Name \_\_\_\_\_

9. \_\_\_\_\_  
Company Address and Zip Code \_\_\_\_\_

10. \_\_\_\_\_  
Chief Operating Officer \_\_\_\_\_ Telephone Number \_\_\_\_\_

11. \_\_\_\_\_  
Designated Equal Opportunity Compliance Officer \_\_\_\_\_ Telephone Number \_\_\_\_\_  
(If same as Item #10, write "same")

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) \_\_\_\_\_ (b) \_\_\_\_\_  
Contracting Agency (City Agency) Contract Amount

(c) \_\_\_\_\_ (d) \_\_\_\_\_  
Procurement Identification Number (PIN) Contract Registration Number (CT#)

(e) \_\_\_\_\_ (f) \_\_\_\_\_  
Projected Commencement Date Projected Completion Date

(g) Description and location of proposed contract:  
\_\_\_\_\_  
\_\_\_\_\_

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

If yes, attach a copy of certificate.

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

If yes, attach a copy of certificate.

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

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

Date submitted: \_\_\_\_\_  
Agency to which submitted: \_\_\_\_\_  
Name of Agency Person: \_\_\_\_\_  
Contract No.: \_\_\_\_\_  
Telephone: \_\_\_\_\_

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

If yes,

(a) Name and address of OFCCP office.

\_\_\_\_\_  
\_\_\_\_\_

(b) Was a Certificate of Equal Employment Compliance issued within the past 36 months?

Yes \_\_\_ No \_\_\_

If yes, attach a copy of such certificate.

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

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

(d) Were any deficiencies found? Yes \_\_\_ No \_\_\_

If yes, attach a copy of such findings.

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

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

## PART II: DOCUMENTS REQUIRED

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

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

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

- |  |                |
|--|----------------|
| (a) Prior to job offer                     | Yes ___ No ___ |
| (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 this Employment Report Title

\_\_\_\_\_  
Name of official authorized to sign on behalf of the contractor Title

\_\_\_\_\_  
Telephone Number

\_\_\_\_\_  
Signature of authorized official Date

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

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

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

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

**Only original signatures accepted.**

Sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_ 20 \_\_\_\_\_

\_\_\_\_\_  
Notary Public

\_\_\_\_\_  
Authorized Signature

\_\_\_\_\_  
Date



**OWNERSHIP INFORMATION: USE OF SUBCONTRACTORS/TRADES**

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

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

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

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

**OWNERSHIP CODES**

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

**FORM B: PROJECTED WORKFORCE**

**TRADE CLASSIFICATION CODES**

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

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

**MALES**

**FEMALES**

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

Total (Col. #1-10):

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

Total Female  
(Col. #6 - 10):

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

**FURNISHED TO SELECTED WORKFORCE**

Trade: \_\_\_\_\_

Union Affiliation, if applicable \_\_\_\_\_

Total (Col. #1-10): \_\_\_\_\_

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

Total Female  
(Col. #6 - 10): \_\_\_\_\_

**MALES**

	(1)		(2)		(3)		(4)		(5)	
	White Non Hisp.	Black Non Hisp.	White Non Hisp.	Black Non Hisp.	White Non Hisp.	Black Non Hisp.	White Non Hisp.	Black Non Hisp.	White Non Hisp.	Black Non Hisp.
J										
H										
A										
TRN										
TOT										

**FEMALES**

	(6)		(7)		(8)		(9)		(10)	
	White Non Hisp.	Black Non Hisp.	White Non Hisp.	Black Non Hisp.	White Non Hisp.	Black Non Hisp.	White Non Hisp.	Black Non Hisp.	White Non Hisp.	Black Non Hisp.
J										
H										
A										
TRN										
TOT										

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

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**FORM C: CURRENT WORKFORCE**

**TRADE CLASSIFICATION CODES**

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

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

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

Total (Col. #1-10):

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

Total Female  
(Col. #6 - 10):

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: \_\_\_\_\_

Union Affiliation, if applicable \_\_\_\_\_

Total (Col. #1-10): \_\_\_\_\_

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

Total Female  
(Col. #6 - 10): \_\_\_\_\_

**MALES**

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

J  
H  
A  
TRN  
TOT

**FEMALES**

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

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

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(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 SUBCONTRACT CERTIFICATE  
(CITY, STATE AND ICIP ONLY)**

Are you currently certified as one of the following? Please check yes or no:

MBE Yes \_\_\_ No \_\_\_      WBE Yes \_\_\_ No \_\_\_      LBE Yes \_\_\_ No \_\_\_  
DBE Yes \_\_\_ No \_\_\_      EBE Yes \_\_\_ No \_\_\_

If you are certified as an MBE, WBE, LBE, EBE or DBE, what city/state agency are you certified with?

Please check one of the following if your firm would like information on how to certify with the City of New York as a:

- Minority Owned Business Enterprise
- Women Owned Business Enterprise
- Disadvantaged Business Enterprise
- Locally based Business Enterprise
- Emerging 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, please list which local(s) you affiliated with \_\_\_\_\_

Are you a Veteran owned company? Yes \_\_\_ No \_\_\_

Procurement Identification Number (PIN)  
(City contracts only) \_\_\_\_\_

Contract Registration Number (CT#)  
(City contracts only) \_\_\_\_\_

Block and Lot Number  
(ICIP projects only)

Contract Amount

I, (print name of authorized official signing) \_\_\_\_\_ hereby certify that I am authorized by the above-named subcontractor to certify that said subcontractor's proposed contract with the above named owner or City agency is less than \$750,000. This affirmation is made in accordance with NYC Charter Chapter 56, Executive Order No. 50 (1980) and the implementing Rules.

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

Signature of authorized official

Date





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

## ADDENDA CONTROL SHEET

BID OPENING DATE: **MARCH 23, 2018**

PROJECT NO.: **QED1023B**

DESCRIPTION: **REPLACEMENT OF TRUNK AND DISTRIBUTION WATER MAIN  
IN CYPRESS AVENUE BETWEEN WILLOUGHBY AVENUE AND  
HIMROD STREET, ETC., BOROUGH OF QUEENS.**

Addendum		Addendum Contains:				
No.	Date	Revised Bid Date/Time	Revised Bid Schedule	Questions & Responses	Additional Amendments	Drawings (number)
1	03/20/2018	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> (0)
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> (0)
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> (0)
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> (0)
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> (0)
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> (0)
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> (0)
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> (0)
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> (0)
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> (0)
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> (0)
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> (0)

The Table above is a guide. Refer to the referenced Addendum for specific information.

ATTACH TO CONTRACT DOCUMENTS

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

PROJECT ID: QED1023B

REPLACEMENT OF TRUNK AND DISTRIBUTION WATER MAIN IN CYPRESS AVENUE  
BETWEEN WILLOUGHBY AVENUE AND HIMROD STREET, ETC.  
Together With All Work Incidental Thereto

BOROUGH OF QUEENS  
CITY OF NEW YORK

ADDENDUM NO. 1

DATED: MARCH 20, 2018

THIS ADDENDUM IS HEREBY MADE A PART OF THE CONTRACT DOCUMENTS

1. Refer to the Bid and Contract Documents, VOLUME 3 OF 3, JOINT BID Pages, Page No. JB-16;  
Add attached Sketch No. JB 403 T following Page No. JB-16.

END OF ADDENDUM NO. 1

By signing in the space provided below, the bidder acknowledges receipt of  
this Addendum consisting of ONE (1) page and ONE (1) page of Attachment

THIS ADDENDUM MUST BE SIGNED BY ALL BIDDERS AND ATTACHED TO THEIR BID

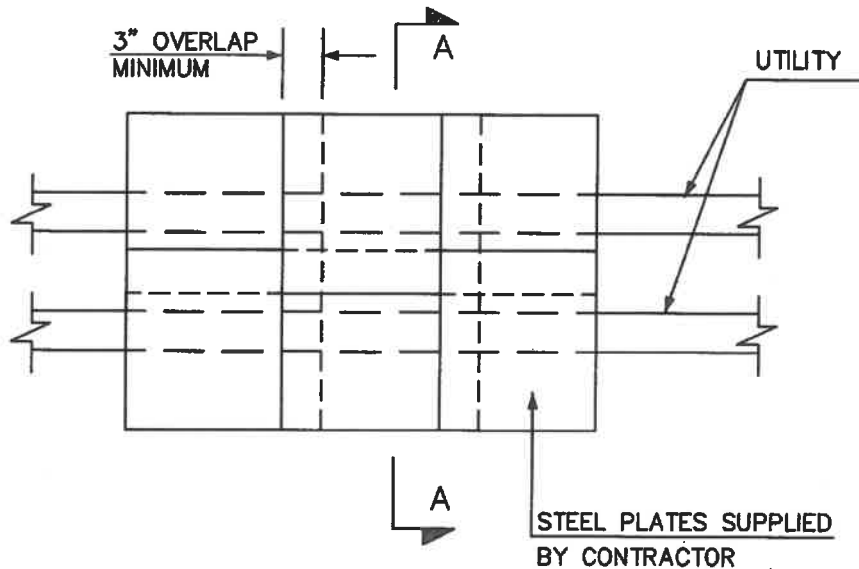
HALCYON CONSTRUCTION CORP.  
65 MARBLE AVENUE  
PLEASANTVILLE, NEW YORK 10570



GURDIP SAINI, P.E.  
Associate Commissioner/Design I

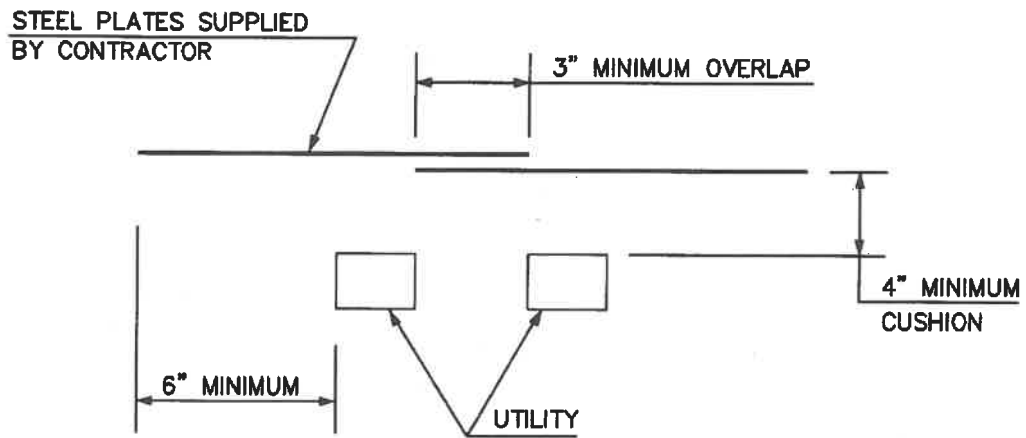
\_\_\_\_\_  
Name of Bidder

By: \_\_\_\_\_



**PLAN**  
NOT TO SCALE

STEEL PLATES SUPPLIED BY CONTRACTOR  
AREA FOR PAYMENT SHALL BE AS MEASURED IN PLACE (EXCLUDE OVERLAP)



**SECTION A-A**  
NOT TO SCALE

**TYPICAL PLATE SIZES:**  
6" x 48" x 1/4"  
12" x 48" x 1/4"  
24" x 48" x 1/4"  
12" x 24" x 3/8"

J.B. SKETCH	
PLACING STEEL PROTECTION PLATES FOR COMMUNICATION FACILITIES	
REVISIONS	CONTRACT NO. SKETCH NO.
09/13/2017	JB 403 T

JB-16A



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**INFRASTRUCTURE DIVISION  
BUREAU OF DESIGN**

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**VOLUME 1 OF 3**

PROJECT ID: QED1023B

REPLACEMENT OF TRUNK AND DISTRIBUTION WATER MAIN IN CYPRESS AVENUE  
BETWEEN WILLOUGHBY AVENUE AND HIMROD STREET, ETC.

INCLUDING SEWER, STREET LIGHTING, TRAFFIC SIGNAL AND PRIVATE UTILITIES  
WORK

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

---

*Contractor*

---

Dated \_\_\_\_\_, 20\_\_

---



Department of  
Design and  
Construction

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

30-30 THOMSON AVENUE  
LONG ISLAND CITY, NEW YORK 11101-3045  
TELEPHONE (718) 391-1000  
WEBSITE [www.nyc.gov/buildnyc](http://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: QED1023B**

**REPLACEMENT OF TRUNK AND DISTRIBUTION WATER MAIN IN  
CYPRESS AVENUE BETWEEN WILLOUGHBY AVENUE AND  
HIMROD STREET, ETC.**

**INCLUDING SEWER, STREET LIGHTING, TRAFFIC SIGNAL AND  
PRIVATE UTILITIES WORK**

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

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

December 20, 2017



8-082



**Department of  
Design and  
Construction**

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

30-30 THOMSON AVENUE  
LONG ISLAND CITY, NEW YORK 11101-3045  
TELEPHONE (718) 391-1000  
WEBSITE [www.nyc.gov/buildnyc](http://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 20, 2017**

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

**INFORMATION FOR BIDDERS**

**JUNE 2015**

**(NO TEXT ON THIS PAGE)**



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

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## INFORMATION FOR BIDDERS

### 1. Description and Location of Work

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

### 2. Time and Place for Receipt of Bids

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

### 3. Definitions

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

### 4. Invitation For Bids and Contract Documents

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

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

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

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

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

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

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

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

5. Pre-Bid Conference

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

6. Agency Contact

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

7. Bidder's Oath

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

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

8. Examination and Viewing of Site

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

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

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

9. Examination of Proposed Contract

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

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

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

10. Form of Bid

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

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

11. Irrevocability of Bid

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

12. Acknowledgment of Amendments

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

13. Bid Samples and Descriptive Literature

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

14. Proprietary Information/Trade Secrets

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

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

15. Pre-Opening Modification or Withdrawal of Bids

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

16. Bid Evaluation and Award

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

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

17. Late Bids, Late Withdrawals and Late Modifications

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

18. Withdrawal of Bids.

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

19. Mistake in Bids

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

(B) Mistakes Discovered Before Award

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

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

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

therein is strictly prohibited.

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

20. Low Tie Bids

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

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

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

21. Rejection of Bids

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

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

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

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



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

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

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

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

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

23. Affirmative Action and Equal Employment Opportunity

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

24. VENDEX Questionnaires

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

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

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

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

25. Complaints About the Bid Process

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

26. Bid, Performance and Payment Security

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

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

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

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

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

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

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

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

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

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

#### 27. Failure to Execute Contract

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

#### 28. Bidder Responsibilities and Qualifications

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

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

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

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

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

29. Employment Report

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

30. Labor Law Requirements

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

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

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

31. Insurance

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

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

32. Lump Sum Contracts

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

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

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

33. Unit Price Contracts

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

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

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

34. Excise Tax

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

35. Licenses and Permits

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

36. Multiple Prime Contractors

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

37. Locally Based Enterprise Requirements (LBE)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

### 38. Bid Submission Requirements

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

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

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

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

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

39. Comptroller's Certificate

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

40. Procurement Policy Board Rules

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

41. DDC Safety Requirements

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



**CITY OF NEW YORK**  
**DEPARTMENT OF DESIGN AND CONSTRUCTION**  
**SAFETY REQUIREMENTS**

June 2015

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*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

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

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

#### V. SAFETY QUESTIONNAIRE

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

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

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

If the Contractor fails to meet the basic criteria listed above, the Construction Safety Unit may request, through the ACCO, more details concerning the Contractor's safety experience. DDC may request the Contractor to provide copies of, among other things, accident investigation reports, OSHA records, OSHA and NYC DOB citations, EPA citations and written corrective action plan.

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**VI SAFETY PROGRAM AND SITE SAFETY PLAN**

Within thirty (30) days from the Award Date, or as otherwise directed, the Contractor shall submit the following: (1) Safety Program, and (2) Site Safety Plan. The Safety Program shall set forth the Contractor's overall safety policy, regulatory compliance plan and minimum safety standards. The Site Safety Plan shall identify project work scope, safety hazards associated with the project tasks, and include specific safety procedures and training appropriate and necessary to complete the work. The Safety Program and the Site Safety Plan are subject to review and acceptance by the Construction Safety Unit prior to the commencement of work at the site. Failure by the Contractor to submit an acceptable Site Safety Plan and Safety Program shall be grounds for default.

**Safety Program:** Corporate Safety Program established by the Contractor that includes the Contractor's overall safety policy, regulatory compliance plan and basic safety procedures covering all aspects of construction operations, performed by the Contractor. The Safety Program shall be a written document with a separate section describing each element of the Safety Program. The Safety Program shall have at minimum the following elements applicable to the Contractor's operations:

- Responsibility and Organization – Contractor's company organization chart, including titles, names, contact information, roles and responsibilities for key personnel, etc.
- Safety Training Program – Contractor's corporate training program.
- Hazard Corrective Actions – Criteria for safety inspections, identification of safety non-compliances, implementation and verification of corrective actions, forms to document safety inspections results, etc.
- Accident/Exposure Investigation
- Recordkeeping and Reporting Injuries – Responsible staff, reporting and recording criteria; OSHA 300 and 300A form completion, etc.
- Fire Protection and Prevention Program
- Housekeeping
- Illumination
- Sanitation
- Personal Protective Equipment (PPE) – Company policy for the use of head protection, foot protection, hearing protection, eye and face protection, protective clothing, and any additional protective equipment based on work tasks; PPE inspection and replacement policy.
- Hazard Communication Program
- Employee Emergency Action Plan
- Protection of Underground Facilities and Utilities
- Ionizing/Nonionizing Radiation
- Material Handling, Storage, Use and Disposal
- Tools – Hand and Power
- Signs, Signals, and Barricades
- Scaffold – Local Law 52 requirements, installation, use, inspection, dismantling, training and general safety requirements.
- Welding and Cutting
- Electrical Safety
- Fall Protection
- Cranes, Derrick, Hoists, Elevators, Conveyors
- Excavation Safety
- Concrete and Masonry Construction
- Maintenance and Protection of Traffic
- Steel Erection
- Demolition
- Blasting and the Use of Explosives
- Stairways and Ladders

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- Toxic and Hazardous Substances
- Alcohol and Drug Abuse Policy
- Rodents and Vermin
- Occupational Noise Exposure
- Confined Space Program – General confined Space Program: training requirements, confined space hazard evaluation procedure, atmospheric testing procedure, confined space classification, permit-required procedure, communication procedure, rescue procedure, forms, etc.
- Construction Vehicles/Heavy Equipment
- Dust Control Procedures

**Site Safety Plan:** The Site Safety Plan shall be a written document and shall apply to all project specific Contractor and subcontractor operations, and shall have at a minimum, the following elements with each element described in a separate section (It may be necessary to modify the basic format for certain unique or high-risk projects, such as tunnels or high-rise construction):

- Project Work Scope – Detailed information regarding work tasks that will be performed by contractor and subcontractors under the project.
- Responsibility and Organization – Contractor’s organization chart with responsible staff for the project, including titles, names, contact information, roles and responsibilities.
- Safety Training and Education – OSHA 10 Hours training, requirements for daily safety briefings and weekly safety meetings, any work task specific training, responsible staff for implementation of training program for the project.
- Job Hazard Analysis (JHA) – Project specific Job Hazard Analysis including work tasks, identified hazards, hazard control methods (administrative, engineering, PPE), contractor’s name, project id, location, name and signature of a certifying person, hazard assessment date.
- Protection of Public
- Hazard Corrective Actions – Responsible staff, forms, frequency of safety inspections and implementation of corrective actions.
- Accident/Exposure Investigation – Accident/incident notification procedure of DDC project staff. Project specific procedures for accident investigation and implementation of corrective actions.
- First Aid and Medical Attention – Responsible staff, location and inspection of First Aid kit, directions to local hospitals; emergency telephone numbers.
- Project Specific Fire Protection and Prevention Program.
- Project Specific Illumination Procedure.
- Project Specific Sanitation Procedure.
- Personal Protective Equipment (PPE)
- Hazard Communication Program – Responsible staff; training; SDS records, project specific list of chemical; location of the program and SDS records.
- Means of Egress – Information regarding free and unobstructed egress from all parts of the building or structure; exit marking; maintenance of means of egress, etc.
- Employee Emergency Action Plan – Project specific: responsible staff, emergency alarm system, evacuation procedure, procedure to account for employees after evacuation, etc.
- Evacuation Plan – Project specific evacuation plan (drawing/scheme) with exists and evacuation routes.
- Protection of Underground Facilities and Utilities, including responsible staff.
- Ionizing/Nonionizing Radiation – Competent person, license and qualification requirements, type of radiation, employees exposure and protection, etc.
- Material Handling, Storage, Use and Disposal – Project specific information regarding material storage and disposal.
- Signs, Signals, and Barricades – Use of danger/warning signs, sidewalk closure, safety instruction signs, pedestrian fencing and barricades, etc.
- Scaffold – Project specific scaffold types, training, scaffold drawings, competent person, criteria for project specific scaffold, falling object protection.



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- Welding and Cutting – project specific procedure for welding and cutting, including all necessary safety requirements such as fire prevention, personal protective equipment, hot work permits, FDNY certificate requirements.
- Fall Protection – Project specific information regarding selected fall protection systems, fall protection plan.
- Cranes, Derrick, Hoists, Elevators, Conveyors – project specific equipment information including type, rated load capacity, manufacture specification requirements, competent person, exposure to falling load, inspection, recordkeeping, clearance requirements, communication procedure, ground lines, permits.
- Excavation Safety – Competent person, project specific protective system.
- Maintenance and Protection of Traffic Plan – Project specific MPT plan, flagmen training.
- Steel Erection – Site specific erection plan, requirements for applicable written notifications, competent person.
- Demolition – Engineering survey, including written evidence, disconnection of all effected utilities, identification of all hazardous chemicals, materials, gases, etc., floor openings, chutes, inspection and maintenance of all stairs/passageways, removal of materials/debris/structural elements, lock out/tag out, competent person.
- Blasting and the Use of Explosives – Project specific safety procedures, warning signs, training/qualification, transportation, storage and use of explosives, inspection.
- Toxic and Hazardous Substances – Safety procedures for substances to be used on project.
- Noise Mitigation Plan – Completed project specific Noise Mitigation Plan.
- Confined Space Program – Project specific Confined Space Program, responsible staff, training records, equipment information, rescue procedure, list of project specific confined spaces, forms.
- Construction Vehicles/Heavy Equipment – Type of construction vehicles/heavy equipment to be used on site.
- Dust Mitigation Plan – Completed project specific Dust Mitigation Plan.

The most critical component of the Site Safety Plan is the Job Hazard Analysis (JHA) section. The JHA form is a written document prepared by the contractor. The contractor must conduct a site and task assessment JHA to identify the major job steps and any potential safety or environmental hazards related to performance of the work, eliminate or implement controls for the potential hazards, and identify proper personal protective equipment for the task. The JHA shall be communicated to all contractor/subcontractor personnel on site.

The initial Job Hazard Assessment form shall be included in the contractor's Site Safety Plan and the current form shall be available at the construction site for reference.

Certain DDC programs, such as Job Order Contracting System (JOCS), may not necessarily require Site Safety Plans. The JOCS contractor shall submit a Safety Program. The Site Safety Plan requirement for the JOCS contractor will be determined by QA&CS based on a project work scope, construction activities and project location. In addition, certain DDC Operating Units may establish client-specific program or safety requirements. The contractor's Site Safety Plan must address such client-specific program or safety requirements.

## VII. KICK-OFF MEETINGS/PRE-CONSTRUCTION AND SAFETY REVIEW

RE/CPM shall invite QA&CS Construction Safety Unit to the construction kick-off meeting. A QA&CS representative will participate in this meeting with the Contractor and RE/CPM prior to the start of the project for the purpose of:

- A. Reviewing the safety issues detailed in the contract.
- B. Reviewing the Site Safety Plan.
- C. Reviewing any new issues or information that was not previously addressed.
- D. Discussing planned inspections and audits of the site by QA&CS personnel.

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**VIII. EVALUATION DURING WORK IN PROGRESS**

The Contractor's adherence to these Safety Requirements will be monitored throughout the project. This will be accomplished by the following:

- A. Use of a safety checklist by a representative of the Construction Safety Unit or other designated DDC representative or Consultant during regular, unannounced inspections of the job site. Field Exit Conferences will be held with the RE/CPM, Contractor Project Safety Representatives.
- B. The RE/CPM will continually monitor the safety and environmental performance of the contractor's employees and work methods. Deficiencies shall be brought to the attention of the contractor's representative on site for immediate correction. The DDC representative will maintain a written record of these deficiencies and have these records available upon request. Any critical deficiencies shall be immediately reported to QA&CS phone# (718) 391-1624 or (718) 391-1911.
- C. If the Contractor's safety performance during the project is not up to DDC standards (safety performance measure, accident/incident rate, etc.) the Director – QA&CS, or his/her designee will meet with the Contractor's Project Safety Representative and or Project Safety Manager, the DDC Project Manager, the RE/CPM, and the DDC Environmental Specialist (if environmental issues are involved). The purpose of this meeting is to 1) determine the level of non-compliance; 2) explain and clarify the safety/environmental provisions; 3) agree on a future course of action to correct the deficiencies.
- D. If the deficiencies continue to occur with inadequate attention by the contractor, this shall, among other remedies available, be grounds for default.
- E. The contractor shall within 1 hour inform the RE/CPM/CM of all accidents/incidents including all fatalities, any injuries to employees or members of the general public, and property damage (e.g., structural damage, equipment rollovers, utility damage, loads dropped from crane). The RE/CPM shall notify the Construction Safety Unit as per DDC's Construction Safety Emergency and Accident Notification and Response Protocol and shall maintain a record of all contractor accidents/incidents for the project.
- F. The Construction Safety Unit shall be notified within two (2) hours of the start of any NYS-DOL/ NYC-COSH/ OSHA/ EPA inspections.

**IX. SAFETY PERFORMANCE EVALUATION**

The contractor's safety record, including accident/incident history and DDC safety inspection results, will be considered as part of the Contractor's performance evaluation at the conclusion of the project. Poor safety performance during the course of the project shall be a reason to rate a Contractor unsatisfactory which may be reflected in the City's Vendex system and will be considered for future procurement actions as set forth in the City's Procurement Policy Board Rules.

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**STANDARD CONSTRUCTION CONTRACT**

**March 2017**

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**WITNESSETH:**

The parties, in consideration of the mutual agreements contained herein, agree as follows:

**CHAPTER I: THE CONTRACT AND DEFINITIONS**

**ARTICLE 1. THE CONTRACT**

1.1 Except for titles, subtitles, headings, running headlines, tables of contents and indices (all of which are printed herein merely for convenience), the following, except for such portions thereof as may be specifically excluded, shall be deemed to be part of this **Contract**:

1.1.1 All provisions required by law to be inserted in this **Contract**, whether actually inserted or not;

1.1.2 The Contract Drawings and Specifications;

1.1.3 The General Conditions and Special Conditions, if any;

1.1.4 The **Contract**;

1.1.5 The Information for Bidders; Request for Proposals; Notice of Solicitation and Proposal For Bids; Bid or Proposal, and, if used, the Bid Booklet;

1.1.6 All Addenda issued prior to the receipt of the bids; the Notice of Award; Performance and Payment Bonds, if required; and the Notice to Proceed or the Order to Work.

1.2 Should any conflict occur in or between the Drawings and Specifications, the **Contractor** shall be deemed to have estimated the most expensive way of doing the **Work**, unless the **Contractor** shall have asked for and obtained a decision in writing from the **Commissioner** of the **Agency** that is entering into this **Contract**, before the submission of its bid, as to what shall govern.

**ARTICLE 2. DEFINITIONS**

2.1 The following words and expressions, or pronouns used in their stead, shall, wherever they appear in this Contract, be construed as follows, unless a different meaning is clear from the context:

2.1.1 "**Addendum**" or "**Addenda**" shall mean the additional Contract provisions and/or technical clarifications issued in writing by the Commissioner prior to the receipt of bids.

2.1.2 "**Agency**" shall mean a city, county, borough or other office, position, department, division, bureau, board or commission, or a corporation, institution or agency of government, the expenses of which are paid in whole or in part from the City treasury.

2.1.3 "**Agency Chief Contracting Officer**" (**ACCO**) shall mean a person delegated authority by the Commissioner to organize and supervise the procurement activity of subordinate Agency staff in conjunction with the CCPO, or his/her duly authorized representative.

2.1.4 **“Allowance”** shall mean a sum of money which the Agency may include in the total amount of the Contract for such specific contingencies as the Agency believes may be necessary to complete the Work, *e.g.*, lead or asbestos remediation, and for which the Contractor will be paid on the basis of stipulated unit prices or a formula set forth in the Contract or negotiated between the parties provided, however, that if the Contractor is not directed to use the Allowance, the Contractor shall have no right to such money and it shall be deducted from the total amount of the Contract.

2.1.5 **“City”** shall mean the City of New York.

2.1.6 **“City Chief Procurement Officer” (CCPO)** shall mean a person delegated authority by the Mayor to coordinate and oversee the procurement activity of Mayoral agency staff, including the ACCO and any offices which have oversight responsibility for the procurement of construction, or his/her duly authorized representative.

2.1.7 **“Commissioner”** shall mean the head of the Agency that has entered into this Contract, or his/her duly authorized representative.

2.1.8 **“Comptroller”** shall mean the Comptroller of the City of New York.

2.1.9 **“Contract”** or **“Contract Documents”** shall mean each of the various parts of the contract referred to in Article 1 hereof, both as a whole and severally.

2.1.10 **“Contract Drawings”** shall mean only those drawings specifically entitled as such and listed in the Specifications or in any Addendum, or any drawings furnished by the Commissioner, pertaining or supplemental thereto.

2.1.11 **“Contract Work”** shall mean everything required to be furnished and done by the Contractor by any one or more of the parts of the Contract referred to in Article 1, except Extra Work as hereinafter defined.

2.1.12 **“Contractor”** shall mean the entity which executed this Contract, whether a corporation, firm, partnership, joint venture, individual, or any combination thereof, and its, their, his/her successors, personal representatives, executors, administrators, and assigns, and any person, firm, partnership, joint venture, individual, or corporation which shall at any time be substituted in the place of the Contractor under this Contract.

2.1.13 **“Days”** shall mean calendar days, except where otherwise specified.

2.1.14 **“Engineer”** or **“Architect”** or **“Project Manager”** shall mean the person so designated in writing by the Commissioner in the Notice to Proceed or the Order to Work to act as such in relation to this Contract, including a private Architect or Engineer or Project Manager, as the case may be. Subject to written approval by the Commissioner, the Engineer, Architect or Project Manager may designate an authorized representative.

2.1.15 **“Engineering Audit Officer” (EAO)** shall mean the person so designated by the Commissioner to perform responsible auditing functions hereunder.

2.1.16 **“Extra Work”** shall mean Work other than that required by the Contract at the time of award which is authorized by the Commissioner pursuant to Chapter VI of this Contract.

2.1.17 **"Federal-Aid Contract"** shall mean a contract in which the United States (federal) Government provides financial funding as so designated in the Information for Bidders.

2.1.18 **"Final Acceptance"** shall mean final written acceptance of all the Work by the Commissioner, a copy of which shall be sent to the Contractor.

2.1.19 **"Final Approved Punch List"** shall mean a list, approved pursuant to Article 14.2.2, specifying those items of Work to be completed by the Contractor after Substantial Completion and dates for the completion of each item of Work.

2.1.20 **"Law"** or **"Laws"** shall mean the Constitution of the State of New York, the New York City Charter, the New York City Administrative Code, a statute of the United States or of the State of New York, a local law of the City of New York, any ordinance, rule or regulation having the force of law, or common law.

2.1.21 **"Materialman"** shall mean any corporation, firm, partnership, joint venture, or individual, other than employees of the Contractor, who or which contracts with the Contractor or any Subcontractor, to fabricate or deliver, or who actually fabricates or delivers, plant, materials or equipment to be incorporated in the Work.

2.1.22 **"Means and Methods of Construction"** shall mean the labor, materials, temporary structures, tools, plant, and construction equipment, and the manner and time of their use, necessary to accomplish the result intended by this Contract.

2.1.23 **"Notice to Proceed"** or **"Order to Work"** shall mean the written notice issued by the Commissioner specifying the time for commencement of the Work and the Engineer, Architect or Project Manager.

2.1.24 **"Other Contractor(s)"** shall mean any contractor (other than the entity which executed this Contract or its Subcontractors) who or which has a contract with the City for work on or adjacent to the building or Site of the Work.

2.1.25 **"Payroll Taxes"** shall mean State Unemployment Insurance (SUI), Federal Unemployment Insurance (FUI), and payments pursuant to the Federal Insurance Contributions Act (FICA).

2.1.26 **"Project"** shall mean the public improvement to which this Contract relates.

2.1.27 **"Procurement Policy Board" (PPB)** shall mean the Agency of the City of New York whose function is to establish comprehensive and consistent procurement policies and rules which shall have broad application throughout the City.

2.1.28 **"Required Quantity"** in a unit price Contract shall mean the actual quantity of any item of Work or materials which is required to be performed or furnished in order to comply with the Contract.

2.1.29 **"Resident Engineer"** shall mean the representative of the Commissioner duly designated by the Commissioner to be his/her representative at the site of the Work.

2.1.30 **"Site"** shall mean the area upon or in which the Contractor's operations are carried on, and such other areas adjacent thereto as may be designated as such by the Engineer.

2.1.31 “**Small Tools**” shall mean items that are ordinarily required for a worker’s job function, including but not limited to, equipment that ordinarily has no licensing, insurance or substantive storage costs associated with it; such as circular and chain saws, impact drills, threaders, benders, wrenches, socket tools, etc.

2.1.32 “**Specifications**” shall mean all of the directions, requirements, and standards of performance applying to the Work as hereinafter detailed and designated under the Specifications.

2.1.33 “**Subcontractor**” shall mean any person, firm or corporation, other than employees of the Contractor, who or which contracts with the Contractor or with its subcontractors to furnish, or actually furnishes labor, or labor and materials, or labor and equipment, or superintendence, supervision and/or management at the Site. Wherever the word Subcontractor appears, it shall also mean sub-Subcontractor.

2.1.34 “**Substantial Completion**” shall mean the written determination by the Engineer that the Work required under this Contract is substantially, but not entirely, complete and the approval of the **Final Approved Punch List**.

2.1.35 “**Work**” shall mean all services required to complete the Project in accordance with the Contract Documents, including without limitation, labor, material, superintendence, management, administration, equipment, and incidentals, and obtaining any and all permits, certifications and licenses as may be necessary and required to complete the Work, and shall include both Contract Work and Extra Work.

## **CHAPTER II: THE WORK AND ITS PERFORMANCE**

### **ARTICLE 3. CHARACTER OF THE WORK**

3.1 Unless otherwise expressly provided in the **Contract Drawings, Specifications, and Addenda**, the **Work** shall be performed in accordance with the best modern practice, utilizing, unless otherwise specified in writing, new and unused materials of standard first grade quality and workmanship and design of the highest quality, to the satisfaction of the **Commissioner**.

### **ARTICLE 4. MEANS AND METHODS OF CONSTRUCTION**

4.1 Unless otherwise expressly provided in the **Contract Drawings, Specifications, and Addenda**, the **Means and Methods of Construction** shall be such as the **Contractor** may choose; subject, however, to the **Engineer’s** right to reject the **Means and Methods of Construction** proposed by the **Contractor** which in the opinion of the **Engineer**:

4.1.1 Will constitute or create a hazard to the **Work**, or to persons or property; or

4.1.2 Will not produce finished **Work** in accordance with the terms of the **Contract**; or

4.1.3 Will be detrimental to the overall progress of the **Project**.

4.2 The **Engineer’s** approval of the **Contractor’s Means and Methods of Construction**, or his/her failure to exercise his/her right to reject such means or methods, shall not relieve the **Contractor**

of its obligation to complete the **Work** as provided in this **Contract**; nor shall the exercise of such right to reject create a cause of action for damages.

## ARTICLE 5. COMPLIANCE WITH LAWS

5.1 The **Contractor** shall comply with all **Laws** applicable to this **Contract** and to the **Work** to be done hereunder.

5.2 Procurement Policy Board Rules: This **Contract** is subject to the Rules of the **PPB** (“**PPB Rules**”) in effect at the time of the bid opening for this **Contract**. In the event of a conflict between the **PPB Rules** and a provision of this **Contract**, the **PPB Rules** shall take precedence.

5.3 Noise Control Code provisions.

5.3.1 In accordance with the provisions of Section 24-216(b) of the Administrative Code of the **City** (“**Administrative Code**”), Noise Abatement Contract Compliance, devices and activities which will be operated, conducted, constructed or manufactured pursuant to this **Contract** and which are subject to the provisions of the **City Noise Control Code** shall be operated, conducted, constructed, or manufactured without causing a violation of the **Administrative Code**. Such devices and activities shall incorporate advances in the art of noise control development for the kind and level of noise emitted or produced by such devices and activities, in accordance with regulations issued by the **Commissioner** of the **City Department of Environmental Protection**.

5.3.2 The **Contractor** agrees to comply with Section 24-219 of the Administrative Code and implementing rules codified at 15 Rules of the City of New York (“**RCNY**”) Section 28-100 *et seq.* In accordance with such provisions, the **Contractor**, if the **Contractor** is the responsible party under such regulations, shall prepare and post a Construction Noise Mitigation Plan at each **Site**, in which the **Contractor** shall certify that all construction tools and equipment have been maintained so that they operate at normal manufacturers operating specifications. If the **Contractor** cannot make this certification, it must have in place an Alternative Noise Mitigation Plan approved by the **City Department of Environmental Protection**. In addition, the **Contractor’s** certified Construction Noise Mitigation Plan is subject inspection by the **City Department of Environmental Protection** in accordance with Section 28-101 of Title 15 of **RCNY**. No **Contract Work** may take place at a **Site** unless there is a Construction Noise Mitigation Plan or approved Alternative Noise Mitigation Plan in place. In addition, the **Contractor** shall create and implement a noise mitigation training program. Failure to comply with these requirements may result in fines and other penalties pursuant to the applicable provisions of the **Administrative Code** and **RCNY**.

5.4 Ultra Low Sulfur Diesel Fuel: In accordance with the provisions of Section 24-163.3 of the **Administrative Code**, the **Contractor** specifically agrees as follows:

5.4.1 Definitions. For purposes of this Article 5.4, the following definitions apply:

5.4.1(a) “**Contractor**” means any person or entity that enters into a Public Works Contract with a **City Agency**, or any person or entity that enters into an agreement with such person or entity, to perform work or provide labor or services related to such Public Works Contract.

5.4.1(b) "Motor Vehicle" means any self-propelled vehicle designed for transporting persons or property on a street or highway.

5.4.1(c) "Nonroad Engine" means an internal combustion engine (including the fuel system) that is not used in a Motor Vehicle or a vehicle used solely for competition, or that is not subject to standards promulgated under Section 7411 or Section 7521 of Title 42 of the United States Code, except that this term shall apply to internal combustion engines used to power generators, compressors or similar equipment used in any construction program or project.

5.4.1(d) "Nonroad Vehicle" means a vehicle that is powered by a Nonroad Engine, fifty (50) horsepower and greater, and that is not a Motor Vehicle or a vehicle used solely for competition, which shall include, but not be limited to, excavators, backhoes, cranes, compressors, generators, bulldozers, and similar equipment, except that this term shall not apply to horticultural maintenance vehicles used for landscaping purposes that are powered by a Nonroad Engine of sixty-five (65) horsepower or less and that are not used in any construction program or project.

5.4.1(e) "Public Works Contract" means a contract with a **City Agency** for a construction program or project involving the construction, demolition, restoration, rehabilitation, repair, renovation, or abatement of any building, structure, tunnel, excavation, roadway, park or bridge; a contract with a **City Agency** for the preparation for any construction program or project involving the construction, demolition, restoration, rehabilitation, repair, renovation, or abatement of any building, structure, tunnel, excavation, roadway, park or bridge; or a contract with a **City Agency** for any final work involved in the completion of any construction program or project involving the construction, demolition, restoration, rehabilitation, repair, renovation, or abatement of any building, structure, tunnel, excavation, roadway, park or bridge.

5.4.1(f) "Ultra Low Sulfur Diesel Fuel" means diesel fuel that has a sulfur content of no more than fifteen parts per million (15 ppm).

#### 5.4.2 Ultra Low Sulfur Diesel Fuel

5.4.2(a) All **Contractors** shall use Ultra Low Sulfur Diesel Fuel in diesel-powered Nonroad Vehicles in the performance of this **Contract**.

5.4.2(b) Notwithstanding the requirements of Article 5.4.2(a), **Contractors** may use diesel fuel that has a sulfur content of no more than thirty parts per million (30 ppm) to fulfill the requirements of this Article 5.4.2, where the Commissioner of the City Department of Environmental Protection ("DEP Commissioner") has issued a determination that a sufficient quantity of Ultra Low Sulfur Diesel Fuel is not available to meet the needs of **Agencies** and **Contractors**. Any such determination shall expire after six (6) months unless renewed.

5.4.2(c) **Contractors** shall not be required to comply with this Article 5.4.2 where the **City Agency** letting this **Contract** makes a written finding, which is approved, in writing, by the DEP Commissioner, that a sufficient quantity of Ultra Low Sulfur Diesel Fuel, or diesel fuel that has a sulfur content of no more than thirty parts per million (30 ppm) is not available to meet the requirements of Section 24-163.3 of the Administrative Code, provided that such **Contractor** in its fulfillment of the

requirements of this **Contract**, to the extent practicable, shall use whatever quantity of Ultra Low Sulfur Diesel Fuel or diesel fuel that has a sulfur content of no more than thirty parts per million (30 ppm) is available. Any finding made pursuant to this Article 5.4.2(c) shall expire after sixty (60) **Days**, at which time the requirements of this Article 5.4.2 shall be in full force and effect unless the **City Agency** renews the finding in writing and such renewal is approved by the DEP Commissioner.

5.4.2(d) **Contractors** may check on determinations and approvals issued by the DEP Commissioner pursuant to Section 24-163.3 of the Administrative Code, if any, at [www.dep.nyc.gov](http://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 fifteen (15) **Days** after the **Contractor** becomes aware or reasonably should be aware of each such condition, the **Contractor** must notify the **Resident Engineer** or **Engineer**, as directed by the **Commissioner**, 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. Such notice shall include a description of the construction activities that are or could be affected by the condition and may include any recommendations the **Contractor** may have to address the delay condition and any activities the **Contractor** may take to avoid or minimize the 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 for each such condition, the **Contractor** shall submit to the **Commissioner** a verified written statement of the details and estimates of the amounts of such damages, including categories of expected damages and projected monthly costs, together with documentary evidence of such damages as the **Contractor** may have at the time of submission ("statement of delay damages"), as further detailed in Article 11.6. The **Contractor** may submit the above statement within such additional time as may be granted by the **Commissioner** in writing upon written request therefor.

11.1.3 Articles 11.1.1 and 11.1.2 do not relieve the **Contractor** of its obligation to comply with the provisions of Article 44.

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 both 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 progress 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** to the extent required by the **Contract**, 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 Unreasonable delays attributable to the review of shop drawings, the issuance of change orders, or the cumulative impact of change orders that were not brought about by any act or omission of the **Contractor**.
- 11.4.1.3 The unavailability of the **Site** caused by acts or omissions of the **City**.
- 11.4.1.4 The issuance by the **Engineer** of a stop work order that was not brought about through any act or omission of the **Contractor**.
- 11.4.1.5 Differing site conditions or environmental hazards 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** if the **Work** will be or 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, or unless there is a provision in the **Contract** providing for additional compensation for early completion.

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 that would be generally recognized by a reasonably prudent contractor 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 act 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 estimated amount of additional compensation sought and a breakdown of that amount into categories as described 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 Additional insurance and bond costs;
- 11.7.1.5 Extended **Site** overhead, field office rental, salaries of field office staff, on-site project managers and superintendents, field office staff vehicles, **Project-specific** storage, field office utilities and telephone, and field office consumables;
- 11.7.1.6 Labor escalation costs based on actual costs;
- 11.7.1.7 Materials and equipment escalation costs based on applicable industry indices unless documentation of actual increased cost is provided;
- 11.7.1.8 Additional material and equipment storage costs based on actual documented costs and additional costs necessitated by extended manufacturer warranty periods; and
- 11.7.1.9 Extended home office overhead calculated based on the following formula:
  - (1) Subtract from the original **Contract** amount the amount earned by original contractual **Substantial Completion** date (not including change orders);
  - (2) Remove 15% overhead and profit from the calculation in item (1) by dividing the results of item (1) by 1.15;
  - (3) Multiply the result of item (2) by 7.25% for the total home office overhead;
  - (4) Multiply the result of item (3) by 7.25% for the total profit; and
  - (5) The total extended home office overhead will be the total of items (3) and (4).

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 11.7.1.8, and an additional overhead of 5% of the costs outlined in Articles 11.7.1.1 through 11.7.1.3.

11.7.3 Non-Recoverable Costs. The parties agree that the **City** will have no liability for the following items and the **Contractor** agrees it shall make no claim for the following items:

- 11.7.3.1 Profit, or loss of anticipated or unanticipated profit, except as provided in Article 11.7.1.9;
- 11.7.3.2 Consequential damages, including, but not limited to, construction or bridge loans or interest paid on such loans, 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 except those included in Article 11.7.1;
- 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 Any claims for delay 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 Any compensation provided to the **Contractor** in accordance with this Article 11 will be made pursuant to a claim filed with the **Comptroller**. Nothing in this Article 11 extends the time for the **Contractor** to file an action with respect to a claim within six months after **Substantial Completion** pursuant to Article 56.

## **ARTICLE 12. COORDINATION WITH OTHER CONTRACTORS**

12.1 During the progress of the **Work**, **Other Contractors** may be engaged in performing other work or may be awarded other contracts for additional work on this **Project**. In that event, the **Contractor** shall coordinate the **Work** to be done hereunder with the work of such **Other Contractors** and the **Contractor** shall fully cooperate with such **Other Contractors** and carefully fit its own **Work** to that provided under other contracts as may be directed by the **Engineer**. The **Contractor** shall not commit or permit any act which will interfere with the performance of work by any **Other Contractors**.

12.2 If the **Engineer** determines that the **Contractor** is failing to coordinate its **Work** with the work of **Other Contractors** as the **Engineer** has directed, then the **Commissioner** shall have the right to withhold any payments otherwise due hereunder until the **Contractor** completely complies with the **Engineer's** directions.

12.3 The **Contractor** shall notify the **Engineer** in writing if any **Other Contractor** on this **Project** is failing to coordinate its work with the **Work** of this **Contract**. If the **Engineer** finds such charges to be true, the **Engineer** shall promptly issue such directions to the **Other Contractor** with respect thereto as the situation may require. The **City** shall not, however, be liable for any damages suffered by any **Other Contractor's** failure to coordinate its work with the **Work** of this **Contract** or by reason of the **Other Contractor's** failure to promptly comply with the directions so issued by the **Engineer**, or by reason of any **Other Contractor's** default in performance, it being understood that the **City** does not guarantee the responsibility or continued efficiency of any contractor. The **Contractor** agrees to make no claim against the **City** for any damages relating to or arising out of any directions issued by the **Engineer** pursuant to this Article 12 (including but not limited to the failure of any **Other Contractor** to comply or promptly comply with such directions), or the failure of 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** or **Resident Engineer**, as applicable, 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/Resident 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/Resident Engineer** within ten (10) **Days** of the **Engineer/Resident 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** neither accepts the dates nor proposes alternative dates within ten (10) **Days**, the schedule proposed by the **Engineer/Resident Engineer** shall be deemed accepted. If the **Contractor** proposes alternative dates, then, within a reasonable time after receipt, the **Engineer/Resident Engineer**, in a written notification to the **Contractor**, shall approve the **Contractor's** completion dates or, if they are unable to agree, the **Engineer/Resident Engineer** shall establish dates for the completion of each item of **Work**. 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/Resident 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/Resident 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/Resident 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/Resident Engineer's** inspection if, upon such inspection, the **Engineer/Resident 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/Resident Engineer** for the purpose of **Substantial Completion** or **Final Acceptance** shall be made within fourteen (14) **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/Resident 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/Resident 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/Resident 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/Resident Engineer**: If the **Contractor** does not request inspection or re-inspection of the **Work** for the purpose of **Substantial Completion** or **Final Acceptance**, the **Engineer/Resident 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** or **Resident Engineer**, as applicable, 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/Resident 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](http://www.nyc.gov/pip).<sup>1</sup> 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.

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

<sup>1</sup> 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](http://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](mailto:pip@fisa.nyc.gov).



**Subcontractor** shall expressly stipulate that all labor performed and materials furnished by the **Subcontractor** shall strictly comply with the requirements of this **Contract**.

17.7 Documents given to a prospective **Subcontractor** for the purpose of soliciting the **Subcontractor's** bid shall include either a copy of the bid cover or a separate information sheet setting forth the **Project** name, the **Contract** number (if available), the **Agency** (as noted in Article 2.1.6), and the **Project's** location.

17.8 The **Commissioner's** approval of a **Subcontractor** shall not relieve the **Contractor** of any of its responsibilities, duties, and liabilities hereunder. The **Contractor** shall be solely responsible to the **City** for the acts or defaults of its **Subcontractor** and of such **Subcontractor's** officers, agents, and employees, each of whom shall, for this purpose, be deemed to be the agent or employee of the **Contractor** to the extent of its subcontract.

17.9 If the **Subcontractor** fails to maintain the necessary facilities, skill, integrity, past experience, and financial resources (other than due to the **Contractor's** failure to make payments where required) to perform the **Work** in accordance with the terms and conditions of this **Contract**, the **Contractor** shall promptly notify the **Commissioner** and replace such **Subcontractor** with a newly approved **Subcontractor** in accordance with this Article 17.

17.10 The **Contractor** shall be responsible for ensuring that all **Subcontractors** performing **Work** at the **Site** maintain all insurance required by **Law**.

17.11 The **Contractor** shall promptly, upon request, file with the **Engineer** a conformed copy of the subcontract and its cost. The subcontract shall provide the following:

17.11.1 **Payment to Subcontractors:** The agreement between the **Contractor** and its **Subcontractor** shall contain the same terms and conditions as to method of payment for **Work**, labor, and materials, and as to retained percentages, as are contained in this **Contract**.

17.11.2 **Prevailing Rate of Wages:** The agreement between the **Contractor** and its **Subcontractor** shall include the prevailing wage rates and supplemental benefits to be paid in accordance with Labor Law Section 220.

17.11.3 **Section 6-123 of the Administrative Code:** Pursuant to the requirements of Section 6-123 of the Administrative Code, every agreement between the **Contractor** and a **Subcontractor** in excess of fifty thousand (\$50,000) dollars shall include a provision that the **Subcontractor** shall not engage in any unlawful discriminatory practice as defined in Title VIII of the Administrative Code (Section 8-101 *et seq.*).

17.11.4 All requirements required pursuant to federal and/or state grant agreement(s), if applicable to the **Work**.

17.12 The **Commissioner** may deduct from the amounts certified under this **Contract** to be due to the **Contractor**, the sum or sums due and owing from the **Contractor** to the **Subcontractors** according to the terms of the said subcontracts, and in case of dispute between the **Contractor** and its **Subcontractor**, or **Subcontractors**, as to the amount due and owing, the **Commissioner** may deduct and withhold from the amounts certified under this **Contract** to be due to the **Contractor** such sum or sums as may be claimed by such **Subcontractor**, or **Subcontractors**, in a sworn affidavit, to be due and owing until such time as such claim or claims shall have been finally resolved.

17.13 On contracts where performance bonds and payment bonds are executed, the **Contractor** shall include on each requisition for payment the following data: **Subcontractor's** name, value of the subcontract, total amount previously paid to **Subcontractor** for **Work** previously requisitioned, and the amount, including retainage, to be paid to the **Subcontractor** for **Work** included in the requisition.

17.14 On **Contracts** where performance bonds and payment bonds are not executed, the **Contractor** shall include with each requisition for payment submitted hereunder, a signed statement from each and every **Subcontractor** and/or **Materialman** for whom payment is requested in such requisition. Such signed statement shall be on the letterhead of the **Subcontractor** and/or **Materialman** for whom payment is requested and shall (i) verify that such **Subcontractor** and/or **Materialman** has been paid in full for all **Work** performed and/or material supplied to date, exclusive of any amount retained and any amount included on the current requisition, and (ii) state the total amount of retainage to date, exclusive of any amount retained on the current requisition.

#### **ARTICLE 18. ASSIGNMENTS**

18.1 The **Contractor** shall not assign, transfer, convey or otherwise dispose of this **Contract**, or the right to execute it, or the right, title or interest in or to it or any part thereof, or assign, by power of attorney or otherwise any of the monies due or to become due under this **Contract**, unless the previous written consent of the **Commissioner** shall first be obtained thereto, and the giving of any such consent to a particular assignment shall not dispense with the necessity of such consent to any further or other assignments.

18.2 Such assignment, transfer, conveyance or other disposition of this **Contract** shall not be valid until filed in the office of the **Commissioner** and the **Comptroller**, with the written consent of the **Commissioner** endorsed thereon or attached thereto.

18.3 Failure to obtain the previous written consent of the **Commissioner** to such an assignment, transfer, conveyance or other disposition, may result in the revocation and annulment of this **Contract**. The **City** shall thereupon be relieved and discharged from any further liability to the **Contractor**, its assignees, transferees or sublessees, who shall forfeit and lose all monies therefor earned under the **Contract**, except so much as may be required to pay the **Contractor's** employees.

18.4 The provisions of this clause shall not hinder, prevent, or affect an assignment by the **Contractor** for the benefit of its creditors made pursuant to the **Laws** of the State of New York.

18.5 This **Contract** may be assigned by the **City** to any corporation, agency or instrumentality having authority to accept such assignment.

### **CHAPTER V: CONTRACTOR'S SECURITY AND GUARANTEE**

#### **ARTICLE 19. SECURITY DEPOSIT**

19.1 If performance and payment bonds are required, the **City** shall retain the bid security to ensure that the successful bidder executes the **Contract** and furnishes the required payment and performance security within ten (10) **Days** after notice of the award of the **Contract**. If the successful bidder fails to execute the **Contract** and furnish the required payment and performance security, the **City** shall retain such bid security as set forth in the Information for Bidders. If the successful bidder executes the

**Contract** and furnishes the required payment and performance security, the **City** shall return the bid security within a reasonable time after the furnishing of such bonds and execution of the **Contract** by the **City**.

19.2 If performance and payment bonds are not required, the bid security shall be retained by the **City** as security for the **Contractor's** faithful performance of the **Contract**. If partial payments are provided, the bid security will be returned to the **Contractor** after the sum retained under Article 21 equals the amount of the bid security, subject to other provisions of this **Contract**. If partial payments are not provided, the bid security will be released when final payment is certified by the **City** for payment.

19.3 If the **Contractor** is declared in default under Article 48 prior to the return of the deposit, or if any claim is made such as referred to in Article 23, the amount of such deposit, or so much thereof as the **Comptroller** may deem necessary, may be retained and then applied by the **Comptroller**:

19.3.1 To compensate the **City** for any expense, loss or damage suffered or incurred by reason of or resulting from such default, including the cost of re-letting and liquidated damages; or

19.3.2 To indemnify the **City** against any and all claims.

#### **ARTICLE 20. PAYMENT GUARANTEE**

20.1 On **Contracts** where one hundred (100%) percent performance bonds and payment bonds are executed, this Article 20 does not apply.

20.2 In the event the terms of this **Contract** do not require the **Contractor** to provide a payment bond or where the **Contract** does not require a payment bond for one hundred (100%) percent of the **Contract** price, the **City** shall, in accordance with the terms of this Article 20, guarantee payment of all lawful claims for:

20.2.1 Wages and compensation for labor performed and/or services rendered; and

20.2.2 Materials, equipment, and supplies provided, whether incorporated into the **Work** or not, when demands have been filed with the **City** as provided hereinafter by any person, firm, or corporation which furnished labor, material, equipment, supplies, or any combination thereof, in connection with the **Work** performed hereunder (hereinafter referred to as the "beneficiary") at the direction of the **City** or the **Contractor**.

20.3 The provisions of Article 20.2 are subject to the following limitations and conditions:

20.3.1 If the **Contractor** provides a payment bond for a value that is less than one hundred (100%) percent of the value of the **Contract Work**, the payment bond provided by the **Contractor** shall be primary (and non-contributing) to the payment guarantee provided under this Article 20.

20.3.2 The guarantee is made for the benefit of all beneficiaries as defined in Article 20.2 provided that those beneficiaries strictly adhere to the terms and conditions of Article 20.3.4 and 20.3.5.

20.3.3 Nothing in this Article 20 shall prevent a beneficiary providing labor, services or material for the **Work** from suing the **Contractor** for any amounts due and owing the beneficiary by the **Contractor**.

20.3.4 Every person who has furnished labor or material, to the **Contractor** or to a **Subcontractor** of the **Contractor**, in the prosecution of the **Work** and who has not been paid in full therefor before the expiration of a period of ninety (90) **Days** after the date on which the last of the labor was performed or material was furnished by him/her for which the claim is made, shall have the right to sue on this payment guarantee in his/her own name for the amount, or the balance thereof, unpaid at the time of commencement of the action; provided, however, that a person having a direct contractual relationship with a **Subcontractor** of the **Contractor** but no contractual relationship express or implied with the **Contractor** shall not have a right of action upon the guarantee unless he/she shall have given written notice to the **Contractor** within one hundred twenty (120) **Days** from the date on which the last of the labor was performed or the last of the material was furnished, for which his/her claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the material was furnished or for whom the labor was performed. The notice shall be served by delivering the same personally to the **Contractor** or by mailing the same by registered mail, postage prepaid, in an envelope addressed to the **Contractor** at any place where it maintains an office or conducts its business; provided, however, that where such notice is actually received by the **Contractor** by other means, such notice shall be deemed sufficient.

20.3.5 Except as provided in Labor Law Section 220-g, no action on this payment guarantee shall be commenced after the expiration of the one-year limitations period set forth in Section 137(4)(b) of the State Finance Law.

20.3.6 The **Contractor** shall promptly forward to the **City** any notice or demand received pursuant to Article 20.3.4. The **Contractor** shall inform the **City** of any defenses to the notice or demand and shall forward to the **City** any documents the **City** requests concerning the notice or demand.

20.3.7 All demands made against the **City** by a beneficiary of this payment guarantee shall be presented to the **Engineer** along with all written documentation concerning the demand which the **Engineer** deems reasonably appropriate or necessary, which may include, but shall not be limited to: the subcontract; any invoices presented to the **Contractor** for payment; the notarized statement of the beneficiary that the demand is due and payable, that a request for payment has been made of the **Contractor** and that the demand has not been paid by the **Contractor** within the time allowed for such payment by the subcontract; and copies of any correspondence between the beneficiary and the **Contractor** concerning such demand. The **City** shall notify the **Contractor** that a demand has been made. The **Contractor** shall inform the **City** of any defenses to the demand and shall forward to the **City** any documents the **City** requests concerning the demand.

20.3.8 The **City** shall make payment only if, after considering all defenses presented by the **Contractor**, it determines that the payment is due and owing to the beneficiary making the demand.

20.3.9 No beneficiary shall be entitled to interest from the **City**, or to any other costs, including, but not limited to, attorneys' fees, except to the extent required by State Finance Law Section 137.

20.4 Upon the receipt by the **City** of a demand pursuant to this Article 20, the **City** may withhold from any payment otherwise due and owing to the **Contractor** under this **Contract** an amount sufficient to satisfy the demand.

20.4.1 In the event the **City** determines that the demand is valid, the **City** shall notify the **Contractor** of such determination and the amount thereof and direct the **Contractor** to immediately pay such amount to the beneficiary. In the event the **Contractor**, within seven (7) **Days** of receipt of such notification from the **City**, fails to pay the beneficiary, such failure shall constitute an automatic and irrevocable assignment of payment by the **Contractor** to the beneficiary for the amount of the demand determined by the **City** to be valid. The **Contractor**, without further notification or other process, hereby gives its unconditional consent to such assignment of payment to the beneficiary and authorizes the **City**, on its behalf, to take all necessary actions to implement such assignment of payment, including without limitation the execution of any instrument or documentation necessary to effectuate such assignment.

20.4.2 In the event that the amount otherwise due and owing to the **Contractor** by the **City** is insufficient to satisfy such demand, the **City** may, at its option, require payment from the **Contractor** of an amount sufficient to cover such demand and exercise any other right to require or recover payment which the **City** may have under **Law** or **Contract**.

20.4.3 In the event the **City** determines that the demand is invalid, any amount withheld pending the **City's** review of such demand shall be paid to the **Contractor**; provided, however, no lien has been filed. In the event a claim or an action has been filed, the terms and conditions set forth in Article 23 shall apply. In the event a lien has been filed, the parties will be governed by the provisions of the Lien Law of the State of New York.

20.5 The provisions of this Article 20 shall not prevent the **City** and the **Contractor** from resolving disputes in accordance with the **PPB** Rules, where applicable.

20.6 In the event the **City** determines that the beneficiary is entitled to payment pursuant to this Article 20, such determination and any defenses and counterclaims raised by the **Contractor** shall be taken into account in evaluating the **Contractor's** performance.

20.7 Nothing in this Article 20 shall relieve the **Contractor** of the obligation to pay the claims of all persons with valid and lawful claims against the **Contractor** relating to the **Work**.

20.8 The **Contractor** shall not require any performance, payment or other bonds of any **Subcontractor** if this **Contract** does not require such bonds of the **Contractor**.

20.9 The payment guarantee made pursuant to this Article 20 shall be construed in a manner consistent with Section 137 of the State Finance Law and shall afford to persons furnishing labor or materials to the **Contractor** or its **Subcontractors** in the prosecution of the **Work** under this **Contract** all of the rights and remedies afforded to such persons by such section, including but not limited to, the right to commence an action against the **City** on the payment guarantee provided by this Article 20 within the one-year limitations period set forth in Section 137(4)(b).

#### **ARTICLE 21. RETAINED PERCENTAGE**

21.1 If this **Contract** requires one hundred (100%) percent performance and payment security, then as further security for the faithful performance of this **Contract**, the **Commissioner** shall deduct, and

retain until the substantial completion of the **Work**, five (5%) percent of the value of **Work** certified for payment in each partial payment voucher.

21.2 If this **Contract** does not require one hundred (100%) percent performance and payment security and if the price for which this **Contract** was awarded does not exceed one million (\$1,000,000) dollars; then as further security for the faithful performance of this **Contract**, the **Commissioner** shall deduct, and retain until the substantial completion of the **Work**, five (5%) percent of the value of **Work** certified for payment in each partial payment voucher.

21.3 If this **Contract** does not require one hundred (100%) percent performance and payment security and if the price for which this **Contract** was awarded exceeds one million (\$1,000,000) dollars, then as further security for the faithful performance of this **Contract**, the **Commissioner** shall deduct, and retain until the substantial completion of the **Work**, up to ten (10%) percent of the value of **Work** certified for payment in each partial payment voucher. The percentage to be retained is set forth in Schedule A of the General Conditions.

## ARTICLE 22. INSURANCE

22.1 Types of Insurance: The **Contractor** shall procure and maintain the following types of insurance if, and as indicated, in Schedule A of the General Conditions (with the minimum limits and special conditions specified in Schedule A). Such insurance shall be maintained from the date the **Contractor** is required to provide Proof of Insurance pursuant to Article 22.3.1 through the date of completion of all required **Work** (including punch list work as certified in writing by the **Resident Engineer**), except for insurance required pursuant to Article 22.1.4, which may terminate upon **Substantial Completion** of the **Contract**. All insurance shall meet the requirements set forth in this Article 22. Wherever this Article requires that insurance coverage be "at least as broad" as a specified form (including all ISO forms), there is no obligation that the form itself be used, provided that the **Contractor** can demonstrate that the alternative form or endorsement contained in its policy provides coverage at least as broad as the specified form.

22.1.1 Commercial General Liability Insurance: The **Contractor** shall provide Commercial General Liability Insurance covering claims for property damage and/or bodily injury, including death, which may arise from any of the operations under this **Contract**. Coverage under this insurance shall be at least as broad as that provided by the latest edition of Insurance Services Office ("ISO") Form CG 0001. Such insurance shall be "occurrence" based rather than "claims-made" and include, without limitation, the following types of coverage: premises operations; products and completed operations; contractual liability (including the tort liability of another assumed in a contract); broad form property damage; independent contractors; explosion, collapse and underground (XCU); construction means and methods; and incidental malpractice. Such insurance shall contain a "per project" aggregate limit, as specified in Schedule A, that applies separately to operations under this **Contract**.

22.1.1(a) Such Commercial General Liability Insurance shall name the **City** as an Additional Insured. Coverage for the **City** shall specifically include the **City's** officials and employees, be at least as broad as the latest edition of ISO Form CG 20 10 and provide completed operations coverage at least as broad as the latest edition of ISO Form CG 20 37.

22.1.1(b) Such Commercial General Liability Insurance shall name all other entities designated as additional insureds in Schedule A but only for claims arising from the

**Contractor's** operations under this **Contract**, with coverage at least as broad as the latest edition of ISO Form CG 20 26.

22.1.1(c) If the **Work** requires a permit from the Department of Buildings pursuant to 1 RCNY Section 101-08, the **Contractor** shall provide Commercial General Liability Insurance with limits of at least those required by 1 RCNY section 101-08 or greater limits required by the Agency in accordance with Schedule A. 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 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; (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 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.

22.3.4 Documentation confirming renewals of insurance shall be submitted to the **Commissioner** prior to the expiration date of coverage of policies required under this **Contract**. Such proofs of insurance shall comply with the requirements of Articles 22.3.2 and 22.3.3.

22.3.5 The **Contractor** shall be obligated to provide the **City** with a copy of any policy of insurance provided pursuant to this Article 22 upon the demand for such policy by the **Commissioner** or the **City Corporation Counsel**.

#### 22.4 Operations of the **Contractor**:

22.4.1 The **Contractor** shall not commence the **Work** unless and until all required certificates have been submitted to and accepted by the **Commissioner**. Acceptance by the **Commissioner** of a certificate does not excuse the **Contractor** from securing insurance consistent with all provisions of this Article 22 or of any liability arising from its failure to do so.

22.4.2 The **Contractor** shall be responsible for providing continuous insurance coverage in the manner, form, and limits required by this **Contract** and shall be authorized to perform **Work** only during the effective period of all required coverage.

22.4.3 In the event that any of the required insurance policies lapse, are revoked, suspended or otherwise terminated, for whatever cause, the **Contractor** shall immediately stop all **Work**, and shall not recommence **Work** until authorized in writing to do so by the **Commissioner**. Upon quitting the **Site**, except as otherwise directed by the **Commissioner**, the **Contractor** shall leave all plant, materials, equipment, tools, and supplies on the **Site**. **Contract** time shall continue to run during such periods and no extensions of time will be granted. The **Commissioner** may also declare the **Contractor** in default for failure to maintain required insurance.

22.4.4 In the event the **Contractor** receives notice, from an insurance company or other person, that any insurance policy required under this Article 22 shall be cancelled or terminated (or has been cancelled or terminated) for any reason, the **Contractor** shall immediately forward a copy of such notice to both the **Commissioner** and the New York City Comptroller, attn: Office of Contract Administration, Municipal Building, One Centre Street, room 1005, New York, New York 10007. Notwithstanding the foregoing, the **Contractor** shall ensure that there is no interruption in any of the insurance coverage required under this Article 22.

22.4.5 Where notice of loss, damage, occurrence, accident, claim or suit is required under an insurance policy maintained in accordance with this Article 22, the **Contractor** shall notify in writing all insurance carriers that issued potentially responsive policies of any such event relating to any operations under this **Contract** (including notice to Commercial General Liability insurance carriers for events relating to the **Contractor**'s own employees) no later than 20 days after such event. For any policy where the **City** is an Additional Insured, such notice shall expressly specify that "this notice is being given on behalf of the City of New York as Insured as well as the Named Insured." Such notice shall also contain the following information: the number of the insurance policy, the name of the named insured, the date and location of the damage, occurrence, or accident, and the identity of the persons or things injured, damaged or lost. The **Contractor** shall simultaneously send a copy of such notice to the City of New York c/o Insurance Claims Specialist, Affirmative Litigation Division, New York City Law Department, 100 Church Street, New York, New York 10007.

22.4.6 In the event of any loss, accident, claim, action, or other event that does or can give rise to a claim under any insurance policy required under this Article 22, the **Contractor** shall at all times fully cooperate with the **City** with regard to such potential or actual claim.

22.5 **Subcontractor Insurance:** In the event the **Contractor** requires any **Subcontractor** to procure insurance with regard to any operations under this **Contract** and requires such **Subcontractor** to name the **Contractor** as an **Additional Insured** thereunder, the **Contractor** shall ensure that the **Subcontractor** name the **City**, including its officials and employees, as an Additional Insured with coverage at least as broad as the most recent edition of ISO Form CG 20 26.

22.6 Wherever reference is made in Article 7 or this Article 22 to documents to be sent to the **Commissioner** (e.g., notices, filings, or submissions), such documents shall be sent to the address set forth in Schedule A of the General Conditions. In the event no address is set forth in Schedule A, such documents are to be sent to the **Commissioner**'s address as provided elsewhere in this **Contract**.

22.7 Apart from damages or losses covered by insurance provided pursuant to Articles 22.1.2, 22.1.3, or 22.1.5, the **Contractor** waives all rights against the **City**, including its officials and employees, for any damages or losses that are covered under any insurance required under this Article 22 (whether or

not such insurance is actually procured or claims are paid thereunder) or any other insurance applicable to the operations of the **Contractor** and/or its employees, agents, or **Subcontractors**.

22.8 In the event the **Contractor** utilizes a self-insurance program to satisfy any of the requirements of this Article 22, the **Contractor** shall ensure that any such self-insurance program provides the **City** with all rights that would be provided by traditional insurance under this Article 22, including but not limited to the defense and indemnification obligations that insurers are required to undertake in liability policies.

22.9 Materiality/Non-Waiver: The **Contractor's** failure to secure policies in complete conformity with this Article 22, or to give an insurance company timely notice of any sort required in this **Contract** or to do anything else required by this Article 22 shall constitute a material breach of this **Contract**. Such breach shall not be waived or otherwise excused by any action or inaction by the **City** at any time.

22.10 Pursuant to General Municipal Law Section 108, this **Contract** shall be void and of no effect unless **Contractor** maintains Workers' Compensation Insurance for the term of this **Contract** to the extent required and in compliance with the New York State Workers' Compensation Law.

22.11 Other Remedies: Insurance coverage provided pursuant to this Article 22 or otherwise shall not relieve the **Contractor** of any liability under this **Contract**, nor shall it preclude the **City** from exercising any rights or taking such other actions available to it under any other provisions of this **Contract** or Law.

### **ARTICLE 23. MONEY RETAINED AGAINST CLAIMS**

23.1 If any claim shall be made by any person or entity (including **Other Contractors** with the **City** on this **Project**) against the **City** or against the **Contractor** and the **City** for any of the following:

- (a) An alleged loss, damage, injury, theft or vandalism of any of the kinds referred to in Articles 7 and 12, plus the reasonable costs of defending the **City**, which in the opinion of the **Comptroller** may not be paid by an insurance company (for any reason whatsoever); or
- (b) An infringement of copyrights, patents or use of patented articles, tools, etc., as referred to in Article 57; or
- (c) Damage claimed to have been caused directly or indirectly by the failure of the **Contractor** to perform the **Work** in strict accordance with this **Contract**,

the amount of such claim, or so much thereof as the **Comptroller** may deem necessary, may be withheld by the **Comptroller**, as security against such claim, from any money due hereunder. The **Comptroller**, in his/her discretion, may permit the **Contractor** to substitute other satisfactory security in lieu of the monies so withheld.

23.2 If an action on such claim is timely commenced and the liability of the **City**, or the **Contractor**, or both, shall have been established therein by a final judgment of a court of competent jurisdiction, or if such claim shall have been admitted by the **Contractor** to be valid, the **Comptroller** shall pay such judgment or admitted claim out of the monies retained by the **Comptroller** under the provisions of this Article 23, and return the balance, if any, without interest, to the **Contractor**.

## ARTICLE 24. MAINTENANCE AND GUARANTY

24.1 The **Contractor** shall promptly repair, replace, restore or rebuild, as the **Commissioner** may determine, any finished **Work** in which defects of materials or workmanship may appear or to which damage may occur because of such defects, during the one (1) year period subsequent to the date of **Substantial Completion** (or use and occupancy in accordance with Article 16), except where other periods of maintenance and guaranty are provided for in Schedule A.

24.2 As security for the faithful performance of its obligations hereunder, the **Contractor**, upon filing its requisition for payment on **Substantial Completion**, shall deposit with the **Commissioner** a sum equal to one (1%) percent of the price (or the amount fixed in Schedule A of the General Conditions) in cash or certified check upon a state or national bank and trust company or a check of such bank and trust company signed by a duly authorized officer thereof and drawn to the order of the **Comptroller**, or obligations of the **City**, which the **Comptroller** may approve as of equal value with the sum so required.

24.3 In lieu of the above, the **Contractor** may make such security payment to the **City** by authorizing the **Commissioner** in writing to deduct the amount from the **Substantial Completion** payment which shall be deemed the deposit required above.

24.4 If the **Contractor** has faithfully performed all of its obligations hereunder the **Commissioner** shall so certify to the **Comptroller** within five (5) **Days** after the expiration of one (1) year from the date of **Substantial Completion** and acceptance of the **Work** or within thirty (30) **Days** after the expiration of the guarantee period fixed in the **Specifications**. The security payment shall be repaid to the **Contractor** without interest within thirty (30) **Days** after certification by the **Commissioner** to the **Comptroller** that the **Contractor** has faithfully performed all of its obligations hereunder.

24.5 Notice by the **Commissioner** to the **Contractor** to repair, replace, rebuild or restore such defective or damaged **Work** shall be timely, pursuant to this article, if given not later than ten (10) **Days** subsequent to the expiration of the one (1) year period or other periods provided for herein.

24.6 If the **Contractor** shall fail to repair, replace, rebuild or restore such defective or damaged **Work** promptly after receiving such notice, the **Commissioner** shall have the right to have the **Work** done by others in the same manner as provided for in the completion of a defaulted **Contract**, under Article 51.

24.7 If the security payment so deposited is insufficient to cover the cost of such **Work**, the **Contractor** shall be liable to pay such deficiency on demand by the **Commissioner**.

24.8 The **Engineer's** certificate setting forth the fair and reasonable cost of repairing, replacing, rebuilding or restoring any damaged or defective **Work** when performed by one other than the **Contractor**, shall be binding and conclusive upon the **Contractor** as to the amount thereof.

24.9 The **Contractor** shall obtain all manufacturers' warranties and guaranties of all equipment and materials required by this **Contract** in the name of the **City** and shall deliver same to the **Commissioner**. All of the **City's** rights and title and interest in and to said manufacturers' warranties and guaranties may be assigned by the **City** to any subsequent purchasers of such equipment and materials or lessees of the premises into which the equipment and materials have been installed.

## CHAPTER VI: CHANGES, EXTRA WORK, AND DOCUMENTATION OF CLAIM

### ARTICLE 25. CHANGES

25.1 Changes may be made to this **Contract** only as duly authorized in writing by the **Commissioner** in accordance with the **Law** and this **Contract**. All such changes, modifications, and amendments will become a part of the **Contract**. **Work** so ordered shall be performed by the **Contractor**.

25.2 **Contract** changes will be made only for **Work** necessary to complete the **Work** included in the original scope of the **Contract** and/or for non-material changes to the scope of the **Contract**. Changes are not permitted for any material alteration in the scope of **Work** in the **Contract**.

25.3 The **Contractor** shall be entitled to a price adjustment for **Extra Work** performed pursuant to a written change order. Adjustments to price shall be computed in one or more of the following ways:

25.3.1 By applicable unit prices specified in the **Contract**; and/or

25.3.2 By agreement of a fixed price; and/or

25.3.3 By time and material records; and/or

25.3.4 In any other manner approved by the **CCPO**.

25.4 All payments for change orders are subject to pre-audit by the **Engineering Audit Officer** and may be post-audited by the **Comptroller** and/or the **Agency**.

### ARTICLE 26. METHODS OF PAYMENT FOR OVERRUNS AND EXTRA WORK

26.1 **Overrun of Unit Price Item**: An overrun is any quantity of a unit price item which the **Contractor** is directed to provide which is in excess of one hundred twenty-five (125%) percent of the estimated quantity for that item set forth in the bid schedule.

26.1.1 For any unit price item, the **Contractor** will be paid at the unit price bid for any quantity up to one hundred twenty-five (125%) percent of the estimated quantity for that item set forth in the bid schedule. If during the progress of the **Work**, the actual quantity of any unit price item required to complete the **Work** approaches the estimated quantity for that item, and for any reason it appears that the actual quantity of any unit price item necessary to complete the **Work** will exceed the estimated quantity for that item by twenty-five (25%) percent, the **Contractor** shall immediately notify the **Engineer** of such anticipated overrun. The **Contractor** shall not be compensated for any quantity of a unit price item provided which is in excess of one hundred twenty-five (125%) percent of the estimated quantity for that item set forth in the bid schedule without written authorization from the **Engineer**.

26.1.2 If the actual quantity of any unit price item necessary to complete the **Work** will exceed one hundred twenty five (125%) percent of the estimated quantity for that item set forth in the bid schedule, the **City** reserves the right and the **Contractor** agrees to negotiate a new unit price for such item. In no event shall such negotiated new unit price exceed the unit bid price. If the **City** and **Contractor** cannot agree on a new unit price, then the **City** shall order the **Contractor** and the **Contractor** agrees to provide additional quantities of

the item on the basis of time and material records for the actual and reasonable cost as determined under Article 26.2, but in no event at a unit price exceeding the unit price bid.

26.2 **Extra Work:** For **Extra Work** where payment is by agreement on a fixed price in accordance with Article 25.3.2, the price to be paid for such **Extra Work** shall be based on the fair and reasonable estimated cost of the items set forth below. For **Extra Work** where payment is based on time and material records in accordance with Article 25.3.3, the price to be paid for such **Extra Work** shall be the actual and reasonable cost of the items set forth below, calculated in accordance with the formula specified therein, if any.

26.2.1 Necessary materials (including transportation to the **Site**); plus

26.2.2 Necessary direct labor, including payroll taxes (subject to statutory wage caps) and supplemental benefits; plus

26.2.3 Sales and personal property taxes, if any, required to be paid on materials not incorporated into such **Extra Work**; plus

26.2.4 Reasonable rental value of **Contractor**-owned (or **Subcontractor**-owned, as applicable), necessary plant and equipment other than **Small Tools**, plus fuel/energy costs. Except for fuel costs for pick-up trucks which shall be reimbursed based on a consumption of five (5) gallons per shift, fuel costs shall be reimbursed based on actual costs or, in the absence of auditable documentation, the following fuel consumption formula per operating hour:  $(.035) \times (\text{HP rating}) \times (\text{Fuel cost/gallon})$ . Reasonable rental value is defined as the lower of either seventy-five percent of the monthly prorated rental rates established in "The AED Green Book, Rental Rates and Specifications for Construction Equipment" published by Equipment Watch (the "Green Book"), or seventy-five percent of the monthly prorated rental rates established in the "Rental Rate Blue Book for Construction Equipment" published by Equipment Watch (the "Blue Book") (the applicable Blue Book rate being for rental only without the addition of any operational costs listed in the Blue Book). The reasonable rental value is deemed to be inclusive of all operating costs except for fuel/energy consumption and equipment operator's wages/costs. For multiple shift utilization, reimbursement shall be calculated as follows: first shift shall be seventy-five (75%) percent of such rental rates; second shift shall be sixty (60%) percent of the first shift rate; and third shift shall be forty (40%) percent of the first shift rate. Equipment on standby shall be reimbursed at one-third (1/3) the prorated monthly rental rate. **Contractor**-owned (or **Subcontractor**-owned, as applicable) equipment includes equipment from rental companies affiliated with or controlled by the **Contractor** (or **Subcontractor**, as applicable), as determined by the **Commissioner**. In establishing cost reimbursement for non-operating **Contractor**-owned (or **Subcontractor**-owned, as applicable) equipment (scaffolding, sheeting systems, road plates, etc.), the **City** may restrict reimbursement to a purchase-salvage/life cycle basis if less than the computed rental costs; plus

26.2.5 Necessary installation and dismantling of such plant and equipment, including transportation to and from the **Site**, if any, provided that, in the case of non-**Contractor**-owned (or non-**Subcontractor**-owned, as applicable) equipment rented from a third party, the cost of installation and dismantling are not allowable if such costs are included in the rental rate; plus

26.2.6 Necessary fees charged by governmental entities; plus

26.2.7 Necessary construction-related service fees charged by non-governmental entities, such as landfill tipping fees; plus

26.2.8 Reasonable rental costs of non-**Contractor**-owned (or non-**Subcontractor**-owned, as applicable) necessary plant and equipment other than **Small Tools**, plus fuel/energy costs. Except for fuel costs for pick-up trucks which shall be reimbursed based on a consumption of five (5) gallons per shift, fuel costs shall be reimbursed based on actual costs or, in the absence of auditable documentation, the following fuel consumption formula per hour of operation:  $(.035) \times (\text{HP rating}) \times (\text{Fuel cost/gallon})$ . In lieu of renting, the **City** reserves the right to direct the purchase of non-operating equipment (scaffolding, sheeting systems, road plates, etc.), with payment on a purchase-salvage/life cycle basis, if less than the projected rental costs; plus

26.2.9 Workers' Compensation Insurance, and any insurance coverage expressly required by the **City** for the performance of the **Extra Work** which is different than the types of insurance required by Article 22 and Schedule A of the General Conditions. The cost of Workers' Compensation Insurance is subject to applicable payroll limitation caps and shall be based upon the carrier's Manual Rate for such insurance derived from the applicable class Loss Cost ("LC") and carrier's Lost Cost Multiplier ("LCM") approved by the New York State Department of Financial Services, and with the exception of experience rating, rate modifiers as promulgated by the New York Compensation Insurance Rating Board ("NYCIRB"); plus

26.2.10 Additional costs incurred as a result of the **Extra Work** for performance and payment bonds; plus

26.2.11 Twelve percent (12%) percent of the total of items in Articles 26.2.1 through 26.2.5 as compensation for overhead, except that no percentage for overhead will be allowed on **Payroll Taxes** or on the premium portion of overtime pay or on sales and personal property taxes. Overhead shall include without limitation, all costs and expenses in connection with administration, management superintendence, small tools, and insurance required by Schedule A of the General Conditions other than Workers' Compensation Insurance; plus

26.2.12 Ten (10%) percent of the total of items in Articles 26.2.1 through 26.2.5, plus the items in Article 26.2.11, as compensation for profit, except that no percentage for profit will be allowed on **Payroll Taxes** or on the premium portion of overtime pay or on sales and personal property taxes; plus

26.2.13 Five (5%) percent of the total of items in Articles 26.2.6 through 26.2.10 as compensation for overhead and profit.

26.3 Where the **Extra Work** is performed in whole or in part by other than the **Contractor's** own forces pursuant to Article 26.2, the **Contractor** shall be paid, subject to pre-audit by the **Engineering Audit Officer**, the cost of such **Work** computed in accordance with Article 26.2 above, plus an additional allowance of five (5%) percent to cover the **Contractor's** overhead and profit.

26.4 Where a change is ordered, involving both **Extra Work** and omitted or reduced **Contract Work**, the **Contract** price shall be adjusted, subject to pre-audit by the **EAO**, in an amount based on the difference between the cost of such **Extra Work** and of the omitted or reduced **Work**.

26.5 Where the **Contractor** and the **Commissioner** can agree upon a fixed price for **Extra Work** in accordance with Article 25.3.2 or another method of payment for **Extra Work** in accordance with



Article 25.3.4, or for **Extra Work** ordered in connection with omitted **Work**, such method, subject to pre-audit by the **EAO**, may, at the option of the **Commissioner**, be substituted for the cost plus a percentage method provided in Article 26.2; provided, however, that if the **Extra Work** is performed by a **Subcontractor**, the **Contractor** shall not be entitled to receive more than an additional allowance of five (5%) percent for overhead and profit over the cost of such **Subcontractor's Work** as computed in accordance with Article 26.2.

## ARTICLE 27. RESOLUTION OF DISPUTES

27.1 All disputes between the **City** and the **Contractor** of the kind delineated in this Article 27.1 that arise under, or by virtue of, this **Contract** shall be finally resolved in accordance with the provisions of this Article 27 and the **PPB Rules**. This procedure for resolving all disputes of the kind delineated herein shall be the exclusive means of resolving any such disputes.

27.1.1 This Article 27 shall not apply to disputes concerning matters dealt with in other sections of the **PPB Rules**, or to disputes involving patents, copyrights, trademarks, or trade secrets (as interpreted by the courts of New York State) relating to proprietary rights in computer software.

27.1.2 This Article 27 shall apply only to disputes about the scope of **Work** delineated by the **Contract**, the interpretation of **Contract** documents, the amount to be paid for **Extra Work** or disputed work performed in connection with the **Contract**, the conformity of the **Contractor's Work** to the **Contract**, and the acceptability and quality of the **Contractor's Work**; such disputes arise when the **Engineer, Resident Engineer, Engineering Audit Officer**, or other designee of the **Commissioner** makes a determination with which the **Contractor** disagrees.

27.2 All determinations required by this Article 27 shall be made in writing clearly stated, with a reasoned explanation for the determination based on the information and evidence presented to the party making the determination. Failure to make such determination within the time required by this Article 27 shall be deemed a non-determination without prejudice that will allow application to the next level.

27.3 During such time as any dispute is being presented, heard, and considered pursuant to this Article 27, the **Contract** terms shall remain in force and the **Contractor** shall continue to perform **Work** as directed by the **ACCO** or the **Engineer**. Failure of the **Contractor** to continue **Work** as directed shall constitute a waiver by the **Contractor** of its claim.

### 27.4 Presentation of Disputes to **Commissioner**.

Notice of Dispute and Agency Response. The **Contractor** shall present its dispute in writing ("Notice of Dispute") to the **Commissioner** within thirty (30) Days of receiving written notice of the determination or action that is the subject of the dispute. This notice requirement shall not be read to replace any other notice requirements contained in the **Contract**. The Notice of Dispute shall include all the facts, evidence, documents, or other basis upon which the **Contractor** relies in support of its position, as well as a detailed computation demonstrating how any amount of money claimed by the **Contractor** in the dispute was arrived at. Within thirty (30) Days after receipt of the detailed written submission comprising the complete Notice of Dispute, the **Engineer, Resident Engineer, Engineering Audit Officer**, or other designee of the **Commissioner** shall submit to the **Commissioner** all materials he or she deems pertinent to the dispute. Following initial submissions to the **Commissioner**, either party may demand of the other the production of any document or other material the demanding party believes may be relevant to the dispute. The requested party shall produce all relevant materials that are not otherwise

protected by a legal privilege recognized by the courts of New York State. Any question of relevancy shall be determined by the **Commissioner** whose decision shall be final. Willful failure of the **Contractor** to produce any requested material whose relevancy the **Contractor** has not disputed, or whose relevancy has been affirmatively determined, shall constitute a waiver by the **Contractor** of its claim.

27.4.1 **Commissioner Inquiry.** The **Commissioner** shall examine the material and may, in his or her discretion, convene an informal conference with the **Contractor**, the **ACCO**, and the **Engineer, Resident Engineer, Engineering Audit Officer**, or other designee of the **Commissioner** to resolve the issue by mutual consent prior to reaching a determination. The **Commissioner** may seek such technical or other expertise as he or she shall deem appropriate, including the use of neutral mediators, and require any such additional material from either or both parties as he or she deems fit. The **Commissioner's** ability to render, and the effect of, a decision hereunder shall not be impaired by any negotiations in connection with the dispute presented, whether or not the **Commissioner** participated therein. The **Commissioner** may or, at the request of any party to the dispute, shall compel the participation of any **Other Contractor** with a contract related to the **Work** of this **Contract**, and that **Contractor** shall be bound by the decision of the **Commissioner**. Any **Other Contractor** thus brought into the dispute resolution proceeding shall have the same rights and obligations under this Article 27 as the **Contractor** initiating the dispute.

27.4.2 **Commissioner Determination.** Within thirty (30) **Days** after the receipt of all materials and information, or such longer time as may be agreed to by the parties, the **Commissioner** shall make his or her determination and shall deliver or send a copy of such determination to the **Contractor**, the **ACCO**, and **Engineer, Resident Engineer, Engineering Audit Officer**, or other designee of the **Commissioner**, as applicable, together with a statement concerning how the decision may be appealed.

27.4.3 **Finality of Commissioner's Decision.** The **Commissioner's** decision shall be final and binding on all parties, unless presented to the Contract Dispute Resolution Board pursuant to this Article 27. The **City** may not take a petition to the Contract Dispute Resolution Board. However, should the **Contractor** take such a petition, the **City** may seek, and the Contract Dispute Resolution Board may render, a determination less favorable to the **Contractor** and more favorable to the **City** than the decision of the **Commissioner**.

27.5 **Presentation of Dispute to the Comptroller.** Before any dispute may be brought by the **Contractor** to the Contract Dispute Resolution Board, the **Contractor** must first present its claim to the **Comptroller** for his or her review, investigation, and possible adjustment.

27.5.1 **Time, Form, and Content of Notice.** Within thirty (30) **Days** of its receipt of a decision by the **Commissioner**, the **Contractor** shall submit to the **Comptroller** and to the **Commissioner** a Notice of Claim regarding its dispute with the **Agency**. The Notice of Claim shall consist of (i) a brief written statement of the substance of the dispute, the amount of money, if any, claimed and the reason(s) the **Contractor** contends the dispute was wrongly decided by the **Commissioner**; (ii) a copy of the written decision of the **Commissioner**; and (iii) a copy of all materials submitted by the **Contractor** to the **Agency**, including the Notice of Dispute. The **Contractor** may not present to the **Comptroller** any material not presented to the **Commissioner**, except at the request of the **Comptroller**.

27.5.2 Response. Within thirty (30) **Days** of receipt of the Notice of Claim, the **Agency** shall make available to the **Comptroller** a copy of all material submitted by the **Agency** to the **Commissioner** in connection with the dispute. The **Agency** may not present to the **Comptroller** any material not presented to the **Commissioner** except at the request of the **Comptroller**.

27.5.3 **Comptroller Investigation.** The **Comptroller** may investigate the claim in dispute and, in the course of such investigation, may exercise all powers provided in Sections 7-201 and 7-203 of the Administrative Code. In addition, the **Comptroller** may demand of either party, and such party shall provide, whatever additional material the **Comptroller** deems pertinent to the claim, including original business records of the **Contractor**. Willful failure of the **Contractor** to produce within fifteen (15) **Days** any material requested by the **Comptroller** shall constitute a waiver by the **Contractor** of its claim. The **Comptroller** may also schedule an informal conference to be attended by the **Contractor**, **Agency** representatives, and any other personnel desired by the **Comptroller**.

27.5.4 Opportunity of **Comptroller** to Compromise or Adjust Claim. The **Comptroller** shall have forty-five (45) **Days** from his or her receipt of all materials referred to in Article 27.5.3 to investigate the disputed claim. The period for investigation and compromise may be further extended by agreement between the **Contractor** and the **Comptroller**, to a maximum of ninety (90) **Days** from the **Comptroller's** receipt of all materials. The **Contractor** may not present its petition to the Contract Dispute Resolution Board until the period for investigation and compromise delineated in this Article 27.5.4 has expired. In compromising or adjusting any claim hereunder, the **Comptroller** may not revise or disregard the terms of the **Contract** between the parties.

27.6 Contract Dispute Resolution Board. There shall be a Contract Dispute Resolution Board composed of:

27.6.1 The chief administrative law judge of the Office of Administrative Trials and Hearings (OATH) or his/her designated OATH administrative law judge, who shall act as chairperson, and may adopt operational procedures and issue such orders consistent with this Article 27 as may be necessary in the execution of the Contract Dispute Resolution Board's functions, including, but not limited to, granting extensions of time to present or respond to submissions;

27.6.2 The **CCPO** or his/her designee; any designee shall have the requisite background to consider and resolve the merits of the dispute and shall not have participated personally and substantially in the particular matter that is the subject of the dispute or report to anyone who so participated; and

27.6.3 A person with appropriate expertise who is not an employee of the **City**. This person shall be selected by the presiding administrative law judge from a prequalified panel of individuals, established and administered by OATH with appropriate background to act as decision-makers in a dispute. Such individual may not have a contract or dispute with the **City** or be an officer or employee of any company or organization that does, or regularly represents persons, companies, or organizations having disputes with the **City**.

27.7 Petition to the Contract Dispute Resolution Board. In the event the claim has not been settled or adjusted by the **Comptroller** within the period provided in this Article 27, the **Contractor**,

within thirty (30) **Days** thereafter, may petition the Contract Dispute Resolution Board to review the **Commissioner's** determination.

27.7.1 **Form and Content of Petition by Contractor.** The **Contractor** shall present its dispute to the Contract Dispute Resolution Board in the form of a petition, which shall include (i) a brief written statement of the substance of the dispute, the amount of money, if any, claimed, and the reason(s) the **Contractor** contends the dispute was wrongly decided by the **Commissioner**; (ii) a copy of the written Decision of the **Commissioner**, (iii) copies of all materials submitted by the **Contractor** to the Agency; (iv) a copy of the written decision of the **Comptroller**, if any, and (v) copies of all correspondence with, or written material submitted by the **Contractor**, to the **Comptroller**. The **Contractor** shall concurrently submit four (4) complete sets of the Petition: one set to the City Corporation Counsel (Attn: Commercial and Real Estate Litigation Division) and three (3) sets to the Contract Dispute Resolution Board at OATH's offices with proof of service on the City Corporation Counsel. In addition, the **Contractor** shall submit a copy of the written statement of the substance of the dispute, cited in (i) above, to both the **Commissioner** and the **Comptroller**.

27.7.2 **Agency Response.** Within thirty (30) **Days** of its receipt of the Petition by the City Corporation Counsel, the **Agency** shall respond to the brief written statement of the **Contractor** and make available to the Contract Dispute Resolution Board all material it submitted to the **Commissioner** and **Comptroller**. Three (3) complete copies of the **Agency** response shall be provided to the Contract Dispute Resolution Board and one to the **Contractor**. Extensions of time for submittal of the **Agency** response shall be given as necessary upon a showing of good cause or, upon consent of the parties, for an initial period of up to thirty (30) **Days**.

27.7.3 **Further Proceedings.** The Contract Dispute Resolution Board shall permit the **Contractor** to present its case by submission of memoranda, briefs, and oral argument. The Contract Dispute Resolution Board shall also permit the **Agency** to present its case in response to the **Contractor** by submission of memoranda, briefs, and oral argument. If requested by the City Corporation Counsel, the **Comptroller** shall provide reasonable assistance in the preparation of the **Agency's** case. Neither the **Contractor** nor the **Agency** may support its case with any documentation or other material that was not considered by the **Comptroller**, unless requested by the Contract Dispute Resolution Board. The Contract Dispute Resolution Board, in its discretion, may seek such technical or other expert advice as it shall deem appropriate and may seek, on its own or upon application of a party, any such additional material from any party as it deems fit. The Contract Dispute Resolution Board, in its discretion, may combine more than one dispute between the parties for concurrent resolution.

27.7.4 **Contract Dispute Resolution Board Determination.** Within forty-five (45) **Days** of the conclusion of all written submissions and oral arguments, the Contract Dispute Resolution Board shall render a written decision resolving the dispute. In an unusually complex case, the Contract Dispute Resolution Board may render its decision in a longer period, not to exceed ninety (90) **Days**, and shall so advise the parties at the commencement of this period. The Contract Dispute Resolution Board's decision must be consistent with the terms of the **Contract**. Decisions of the Contract Dispute Resolution Board shall only resolve matters before the Contract Dispute Resolution Board and shall not have precedential effect with respect to matters not before the Contract Dispute Resolution Board.

27.7.5 Notification of Contract Dispute Resolution Board Decision. The Contract Dispute Resolution Board shall send a copy of its decision to the **Contractor**, the **ACCO**, the Engineer, the **Comptroller**, the City Corporation Counsel, the CCPO, and the **PPB**. A decision in favor of the **Contractor** shall be subject to the prompt payment provisions of the **PPB Rules**. The Required Payment Date shall be thirty (30) Days after the date the parties are formally notified of the Contract Dispute Resolution Board's decision.

27.7.6 Finality of Contract Dispute Resolution Board Decision. The Contract Dispute Resolution Board's decision shall be final and binding on all parties. Any party may seek review of the Contract Dispute Resolution Board's decision solely in the form of a challenge, filed within four (4) months of the date of the Contract Dispute Resolution Board's decision, in a court of competent jurisdiction of the State of New York, County of New York pursuant to Article 78 of the Civil Practice Law and Rules. Such review by the court shall be limited to the question of whether or not the Contract Dispute Resolution Board's decision was made in violation of lawful procedure, was affected by an error of **Law**, or was arbitrary and capricious or an abuse of discretion. No evidence or information shall be introduced or relied upon in such proceeding that was not presented to the Contract Dispute Resolution Board in accordance with this Article 27.

27.8 Any termination, cancellation, or alleged breach of the **Contract** prior to or during the pendency of any proceedings pursuant to this Article 27 shall not affect or impair the ability of the **Commissioner** or Contract Dispute Resolution Board to make a binding and final decision pursuant to this Article 27.

#### **ARTICLE 28. RECORD KEEPING FOR EXTRA OR DISPUTED WORK OR WORK ON A TIME & MATERIALS BASIS**

28.1 While the **Contractor** or any of its **Subcontractors** is performing **Work** on a time and material basis or **Extra Work** on a time and material basis ordered by the **Commissioner** under Article 25, or where the **Contractor** believes that it or any of its **Subcontractors** is performing **Extra Work** but a final determination by **Agency** has not been made, or the **Contractor** or any of its **Subcontractors** is performing disputed **Work** (whether on or off the **Site**), or complying with a determination or order under protest in accordance with Articles 11, 27, and 30, in each such case the **Contractor** shall furnish the **Resident Engineer** daily with three (3) copies of written statements signed by the **Contractor's** representative at the **Site** showing:

28.1.1 The name, trade, and number of each worker employed on such **Work** or engaged in complying with such determination or order, the number of hours employed, and the character of the **Work** each is doing; and

28.1.2 The nature and quantity of any materials, plant and equipment furnished or used in connection with the performance of such **Work** or compliance with such determination or order, and from whom purchased or rented.

28.2 A copy of such statement will be countersigned by the **Resident Engineer**, noting thereon any items not agreed to or questioned, and will be returned to the **Contractor** within two (2) **Days** after submission.

28.3 The **Contractor** and its **Subcontractors**, when required by the **Commissioner**, or the **Comptroller**, shall also produce for inspection, at the office of the **Contractor** or **Subcontractor**, any and all of its books, bid documents, financial statements, vouchers, records, daily job diaries and reports,

and cancelled checks, and any other documents relating to showing the nature and quantity of the labor, materials, plant and equipment actually used in the performance of such **Work**, or in complying with such determination or order, and the amounts expended therefor, and shall permit the **Commissioner** and the **Comptroller** to make such extracts therefrom, or copies thereof, as they or either of them may desire.

28.4 In connection with the examination provided for herein, the **Commissioner**, upon demand therefor, will produce for inspection by the **Contractor** such records as the **Agency** may have with respect to such **Extra Work** or disputed **Work** performed under protest pursuant to order of the **Commissioner**, except those records and reports which may have been prepared for the purpose of determining the accuracy and validity of the **Contractor's** claim.

28.5 Failure to comply strictly with these requirements shall constitute a waiver of any claim for extra compensation or damages on account of the performance of such **Work** or compliance with such determination or order.

#### **ARTICLE 29. OMITTED WORK**

29.1 If any **Contract Work** in a lump sum **Contract**, or if any part of a lump sum item in a unit price, lump sum, or percentage-bid **Contract** is omitted by the **Commissioner** pursuant to Article 33, the **Contract** price, subject to audit by the EAO, shall be reduced by a pro rata portion of the lump sum bid amount based upon the percent of **Work** omitted subject to Article 29.4. For the purpose of determining the pro rata portion of the lump sum bid amount, the bid breakdown submitted in accordance with Article 41 shall be considered, but shall not be the determining factor.

29.2 If the whole of a lump sum item or units of any other item is so omitted by the **Commissioner** in a unit price, lump sum, or percentage-bid **Contract**, then no payment will be made therefor except as provided in Article 29.4.

29.3 For units that have been ordered but are only partially completed, the unit price shall be reduced by a pro rata portion of the unit price bid based upon the percentage of **Work** omitted subject to Article 29.4.

29.4 In the event the **Contractor**, with respect to any omitted **Work**, has purchased any non-cancelable material and/or equipment that is not capable of use except in the performance of this **Contract** and has been specifically fabricated for the sole purpose of this **Contract**, but not yet incorporated into the **Work**, the **Contractor** shall be paid for such material and/or equipment in accordance with Article 64.2.1(b); provided, however, such payment is contingent upon the **Contractor's** delivery of such material and/or equipment in acceptable condition to a location designated by the **City**.

29.5 The **Contractor** agrees to make no claim for damages or for loss of overhead and profit with regard to any omitted **Work**.

#### **ARTICLE 30. NOTICE AND DOCUMENTATION OF COSTS AND DAMAGES: PRODUCTION OF FINANCIAL RECORDS**

30.1 If the **Contractor** shall claim to be sustaining damages by reason of any act or omission of the **City** or its agents, it shall submit to the **Commissioner** within forty-five (45) **Days** from the time such damages are first incurred, and every thirty (30) **Days** thereafter to the extent additional damages are being incurred for the same condition, 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. This Article 30.1 does not apply to claims submitted to the **Commissioner** pursuant to Article 11 or to claims disputing a determination under Article 27.

30.2 In addition to the foregoing statements, the **Contractor** shall, upon notice from the **Commissioner**, produce for examination at the **Contractor's** office, by the **Engineer, Architect or Project Manager**, all of its books of account, bills, invoices, payrolls, subcontracts, time books, daily reports, bank deposit books, bank statements, check books, and cancelled checks, showing all of its acts and transactions in connection with or relating to or arising by reason of this **Contract**, and submit itself and persons in its employment, for examination under oath by any person designated by the **Commissioner** or **Comptroller** to investigate claims made or disputes against the **City** under this **Contract**. At such examination, a duly authorized representative of the **Contractor** may be present.

30.3 In addition to the statements required under Article 28 and this Article 30, the **Contractor** and/or its **Subcontractor** shall, within thirty (30) **Days** upon notice from the **Commissioner** or **Comptroller**, produce for examination at the **Contractor's** and/or **Subcontractor's** office, by a representative of either the **Commissioner** or **Comptroller**, all of its books of account, bid documents, financial statements, accountant workpapers, bills, invoices, payrolls, subcontracts, time books, daily reports, bank deposit books, bank statements, check books, and cancelled checks, showing all of its acts and transactions in connection with or relating to or arising by reason of this **Contract**. Further, the **Contractor** and/or its **Subcontractor** shall submit any person in its employment, for examination under oath by any person designated by the **Commissioner** or **Comptroller** to investigate claims made or disputes against the **City** under this **Contract**. At such examination, a duly authorized representative of the **Contractor** may be present.

30.4 Unless the information and examination required under Article 30.3 is provided by the **Contractor** and/or its **Subcontractor** upon thirty (30) **Days'** notice from the **Commissioner** or **Comptroller**, or upon the **Commissioner's** or **Comptroller's** written authorization to extend the time to comply, the **City** shall be released from all claims arising under, relating to or by reason of this **Contract**, except for sums certified by the **Commissioner** to be due under the provisions of this **Contract**. It is further stipulated and agreed that no person has the power to waive any of the foregoing provisions and that in any action or dispute resolution procedure against the **City** to recover any sum in excess of the sums certified by the **Commissioner** to be due under or by reason of this **Contract**, the **Contractor** must allege in its complaint and prove, at trial or during such dispute resolution procedure, compliance with the provisions of this Article 30.

30.5 In addition, after the commencement of any action or dispute resolution procedure by the **Contractor** arising under or by reason of this **Contract**, the **City** shall have the right to require the **Contractor** to produce for examination under oath, up until the trial of the action or hearing before the Contract Dispute Resolution Board, the books and documents described in Article 30.3 and submit itself and all persons in its employ for examination under oath. If this Article 30 is not complied with as required, then the **Contractor** hereby consents to the dismissal of the action or dispute resolution procedure.

**CHAPTER VII: POWERS OF THE RESIDENT ENGINEER, THE ENGINEER OR ARCHITECT AND THE COMMISSIONER**

**ARTICLE 31. THE RESIDENT ENGINEER**

31.1 The **Resident Engineer** shall have the power to inspect, supervise, and control the performance of the **Work**, subject to review by the **Commissioner**. The **Resident Engineer** shall not, however, have the power to issue an **Extra Work** order, except as specifically designated in writing by the **Commissioner**.

**ARTICLE 32. THE ENGINEER OR ARCHITECT OR PROJECT MANAGER**

32.1 The **Engineer** or **Architect** or **Project Manager**, in addition to those matters elsewhere herein delegated to the **Engineer** and expressly made subject to his/her determination, direction or approval, shall have the power, subject to review by the **Commissioner**:

32.1.1 To determine the amount, quality, and location of the **Work** to be paid for hereunder; and

32.1.2 To determine all questions in relation to the **Work**, to interpret the **Contract Drawings, Specifications, and Addenda**, and to resolve all patent inconsistencies or ambiguities therein; and

32.1.3 To determine how the **Work** of this **Contract** shall be coordinated with **Work** of **Other Contractors** engaged simultaneously on this **Project**, including the power to suspend any part of the **Work**, but not the whole thereof; and

32.1.4 To make minor changes in the **Work** as he/she deems necessary, provided such changes do not result in a net change in the cost to the **City** or to the **Contractor** of the **Work** to be done under the **Contract**; and

32.1.5 To amplify the **Contract Drawings**, add explanatory information and furnish additional **Specifications** and drawings, consistent with this **Contract**.

32.2 The foregoing enumeration shall not imply any limitation upon the power of the **Engineer** or **Architect** or **Project Manager**, for it is the intent of this **Contract** that all of the **Work** shall generally be subject to his/her determination, direction, and approval, except where the determination, direction or approval of someone other than the **Engineer** or **Architect** or **Project Manager** is expressly called for herein.

32.3 The **Engineer** or **Architect** or **Project Manager** shall not, however, have the power to issue an **Extra Work** order, except as specifically designated in writing by the **Commissioner**.

**ARTICLE 33. THE COMMISSIONER**

33.1 The **Commissioner**, in addition to those matters elsewhere herein expressly made subject to his/her determination, direction or approval, shall have the power:



33.1.1 To review and make determinations on any and all questions in relation to this **Contract** and its performance; and

33.1.2 To modify or change this **Contract** so as to require the performance of **Extra Work** (subject, however, to the limitations specified in Article 25) or the omission of **Contract Work**; and

33.1.3 To suspend the whole or any part of the **Work** whenever in his/her judgment such suspension is required:

33.1.3(a) In the interest of the **City** generally; or

33.1.3(b) To coordinate the **Work** of the various contractors engaged on this **Project** pursuant to the provisions of Article 12; or

33.1.3(c) To expedite the completion of the entire **Project** even though the completion of this particular **Contract** may thereby be delayed.

#### **ARTICLE 34. NO ESTOPPEL**

34.1 Neither the **City** nor any **Agency**, official, agent or employee thereof, shall be bound, precluded or estopped by any determination, decision, approval, order, letter, payment or certificate made or given under or in connection with this **Contract** by the **City**, the **Commissioner**, the **Engineer**, the **Resident Engineer**, or any other official, agent or employee of the **City**, either before or after the final completion and acceptance of the **Work** and payment therefor:

34.1.1 From showing the true and correct classification, amount, quality or character of the **Work** actually done; or that any such determination, decision, order, letter, payment or certificate was untrue, incorrect or improperly made in any particular, or that the **Work**, or any part thereof, does not in fact conform to the requirements of this **Contract**; and

34.1.2 From demanding and recovering from the **Contractor** any overpayment made to it, or such damages as the **City** may sustain by reason of the **Contractor's** failure to perform each and every part of its **Contract**.

### **CHAPTER VIII: LABOR PROVISIONS**

#### **ARTICLE 35. EMPLOYEES**

35.1 The **Contractor** and its **Subcontractors** shall not employ on the **Work**:

35.1.1 Anyone who is not competent, faithful and skilled in the **Work** for which he/she shall be employed; and whenever the **Commissioner** shall inform the **Contractor**, in writing, that any employee is, in his/her opinion, incompetent, unfaithful or disobedient, that employee shall be discharged from the **Work** forthwith, and shall not again be employed upon it; or

35.1.2 Any labor, materials or means whose employment, or utilization during the course of this **Contract**, may tend to or in any way cause or result in strikes, work stoppages, delays, suspension of **Work** or similar troubles by workers employed by the **Contractor** or its **Subcontractors**, or by any of the trades working in or about the buildings and premises where **Work** is being performed under this **Contract**, or by **Other Contractors** or their **Subcontractors** pursuant to other contracts, or on any other building or premises owned or operated by the **City**, its **Agencies**, departments, boards or authorities. Any violation by the **Contractor** of this requirement may, upon certification of the **Commissioner**, be considered as proper and sufficient cause for declaring the **Contractor** to be in default, and for the **City** to take action against it as set forth in Chapter X of this **Contract**, or such other article of this **Contract** as the Commissioner may deem proper; or

35.1.3 In accordance with Section 220.3-e of the Labor Law of the State of New York (hereinafter "Labor Law"), the **Contractor** and its **Subcontractors** shall not employ on the **Work** any apprentice, unless he/she is a registered individual, under a bona fide program registered with the New York State Department of Labor. The allowable ratio of apprentices to journey-level workers in any craft classification shall not be greater than the ratio permitted to the **Contractor** as to its work force on any job under the registered program. Any employee listed on a payroll at an apprentice wage rate, who is not registered as above, shall be paid the wage rate determined by the **Comptroller** of the **City** for the classification of **Work** actually performed. The **Contractor** or **Subcontractor** will be required to furnish written evidence of the registration of its program and apprentices as well as all the appropriate ratios and wage rates, for the area of the construction prior to using any apprentices on the **Contract Work**.

35.2 If the total cost of the **Work** under this **Contract** is at least two hundred fifty thousand (\$250,000) dollars, all laborers, workers, and mechanics employed in the performance of the **Contract** on the public work site, either by the **Contractor**, **Subcontractor** or other person doing or contracting to do the whole or a part of the **Work** contemplated by the **Contract**, shall be certified prior to performing any **Work** as having successfully completed a course in construction safety and health approved by the United States Department of Labor's Occupational Safety and Health Administration that is at least ten (10) hours in duration.

35.3 In accordance with Local Law Nos. 30-2012 and 33-2012, codified at sections 6-132 and 12-113 of the Administrative Code, respectively,

35.3.1 The **Contractor** shall not take an adverse personnel action with respect to an officer or employee in retaliation for such officer or employee making a report of information concerning conduct which such officer or employee knows or reasonably believes to involve corruption, criminal activity, conflict of interest, gross mismanagement or abuse of authority by any officer or employee relating to this **Contract** to (a) the Commissioner of the Department of Investigation, (b) a member of the New York City Council, the Public Advocate, or the **Comptroller**, or (c) the **CCPO**, **ACCO**, **Agency head**, or **Commissioner**.

35.3.2 If any of the **Contractor's** officers or employees believes that he or she has been the subject of an adverse personnel action in violation of Article 35.3.1, he or she shall be entitled to bring a cause of action against the **Contractor** to recover all relief necessary to make him or her whole. Such relief may include but is not limited to: (a) an injunction to restrain continued retaliation, (b) reinstatement to the position such employee would have had but for the retaliation or to an equivalent position, (c) reinstatement of full fringe benefits and seniority rights, (d) payment of two times back

pay, plus interest, and (e) compensation for any special damages sustained as a result of the retaliation, including litigation costs and reasonable attorney's fees.

35.3.3 The **Contractor** shall post a notice provided by the **City** in a prominent and accessible place on any site where work pursuant to the **Contract** is performed that contains information about:

35.3.3(a) how its employees can report to the New York City Department of Investigation allegations of fraud, false claims, criminality or corruption arising out of or in connection with the **Contract**; and

35.3.3(b) the rights and remedies afforded to its employees under Administrative Code sections 7-805 (the New York City False Claims Act) and 12-113 (the Whistleblower Protection Expansion Act) for lawful acts taken in connection with the reporting of allegations of fraud, false claims, criminality or corruption in connection with the **Contract**.

35.3.4 For the purposes of this Article 35.3, "adverse personnel action" includes dismissal, demotion, suspension, disciplinary action, negative performance evaluation, any action resulting in loss of staff, office space, equipment or other benefit, failure to appoint, failure to promote, or any transfer or assignment or failure to transfer or assign against the wishes of the affected officer or employee.

35.3.5 This Article 35.3 is applicable to all of the **Contractor's** **Subcontractors** having subcontracts with a value in excess of \$100,000; accordingly, the **Contractor** shall include this rider in all subcontracts with a value a value in excess of \$100,000.

35.4 Article 35.3 is not applicable to this **Contract** if it is valued at \$100,000 or less. Articles 35.3.1, 35.3.2, 35.3.4, and 35.3.5 are not applicable to this **Contract** if it was solicited pursuant to a finding of an emergency.

### 35.5 Paid Sick Leave Law.

#### 35.5.1 Introduction and General Provisions.

35.5.1(a) 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.<sup>2</sup> Contractors of the **City** or of other governmental entities may be required to provide sick time pursuant to the PSLL.

35.5.1(b) 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").

<sup>2</sup> 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.

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

35.5.1(d) The **Contractor** must notify the **Agency Chief Contracting Officer** of the **Agency** 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 **Contract**. Additionally, the **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.

35.5.1(e) The PSLL is summarized below for the convenience of the **Contractor**. The **Contractor** is advised to review the PSLL and Rules in their entirety. On the website [www.nyc.gov/PaidSickLeave](http://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 the **Contractor** can get more information about how to comply with the PSLL. The **Contractor** acknowledges that it is responsible for compliance with the PSLL notwithstanding any inconsistent language contained herein.

#### 35.5.2 Pursuant to the PSLL and the Rules: Applicability, Accrual, and Use.

35.5.2(a) 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 be provided at the greater of the employee's regular hourly rate or the minimum wage. Employers are not required to provide more than 40 hours of sick time to an employee in any Year.

35.5.2(b) 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 40 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.

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

- i. 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;
- ii. 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;
- iii. closure of such employee's place of business by order of a public official due to a public health emergency; or
- iv. such employee's need to care for a child whose school or childcare provider has been closed due to a public health emergency.

35.5.2(d) 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.

35.5.2(e) 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.

35.5.2(f) 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.

35.5.3 Exemptions and Exceptions. Notwithstanding the above, the PSLL does not apply to any of the following:

35.5.3(a) an independent contractor who does not meet the definition of employee under section 190(2) of the New York State Labor Law;

35.5.3(b) an employee covered by a valid collective bargaining agreement in effect on April 1, 2014, until the termination of such agreement;

35.5.3(c) 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;

35.5.3(d) 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;

35.5.3(e) 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;

35.5.3(f) an employee in a work study program under Section 2753 of Chapter 42 of the United States Code;

35.5.3(g) 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

35.5.3(h) a participant in a Work Experience Program (WEP) under section 336-c of the New York State Social Services Law.

35.5.4 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 PSL. In addition, an employer may not interfere with any investigation, proceeding, or hearing pursuant to the PSL.

35.5.5 Notice of Rights.

35.5.5(a) An employer must provide its employees with written notice of their rights pursuant to the PSL. 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>.

35.5.5(b) 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.

35.5.6 Records. An employer must retain records documenting its compliance with the PSL 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 PSL.

35.5.7 Enforcement and Penalties.

35.5.7(a) Upon receiving a complaint alleging a violation of the PSL, 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 PSL has occurred, it has the right to issue a notice of violation to the employer.

35.5.7(b) 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 PSL 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.

35.5.8 More Generous Policies and Other Legal Requirements. Nothing in the PSL 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.

35.6 HireNYC: Hiring and Reporting Requirements. This Article 35.6 applies to construction contracts of \$1,000,000 or more. The **Contractor** shall comply with the requirements of Articles 35.6.1-35.6.5 for all non-trades jobs (e.g., for an administrative position arising out of **Work** ant located in New York City). The **Contractor** shall reasonably cooperate with SBS and the **City** on specific outreach events, including "Hire-on-the-Spot" events, for the hiring of trades workers in connection with the **Work**. If provided elsewhere in this **Contract**, this **Contract** is subject to a project labor agreement.

35.6.1 Enrollment. The **Contractor** shall enroll with the HireNYC system, found at [www.nyc.gov/sbs](http://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.

#### 35.6.2 Job Posting Requirements.

35.6.2(a) 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.

35.6.2(b) 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.

35.6.2(c) 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** pursuant to Charter section 328 and each anniversary date.

35.6.2(d) 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 Article 35.6 shall be interpreted so as to require the **Contractor** to employ any particular worker.

35.6.2(e) In addition, the provisions of this Article 35.6 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 Article 35.6.1, above, and, if such positions subsequently become open, then the remaining provisions of this Article 35.6 will apply.

35.6.3 Breach and Liquidated Damages. If the **Contractor** fails to comply with the terms of the **Contract** and this Article 35.6 (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 **Agency** may assess liquidated damages in the amount of two-thousand five hundred dollars (\$2,500) per breach. For all other events of noncompliance with the terms of this Article 35.6, 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 Article 35.6 during the term of the **Contract**, the **City** may hold the **Contractor** in default of this **Contract**.

35.6.4 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.

35.6.5 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**, 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 as otherwise requested by the **City**.

35.6.6 Federal Hiring Requirements. If this **Contract** is federally funded (as indicated elsewhere in this **Contract**), the **Contractor** shall comply with all federal hiring requirements as may be set forth in this **Contract**, including, as applicable: (a) 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 and 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.



**ARTICLE 36. NO DISCRIMINATION**

36.1 The **Contractor** specifically agrees, as required by Labor Law Section 220-e, as amended, that:

36.1.1 In the hiring of employees for the performance of **Work** under this **Contract** or any subcontract hereunder, neither the **Contractor**, **Subcontractor**, nor any person acting on behalf of such **Contractor** or **Subcontractor**, shall by reason of race, creed, color or national origin discriminate against any citizen of the State of New York who is qualified and available to perform the **Work** to which the employment relates;

36.1.2 Neither the **Contractor**, **Subcontractor**, nor any person on its behalf shall, in any manner, discriminate against or intimidate any employee hired for the performance of **Work** under this **Contract** on account of race, creed, color or national origin;

36.1.3 There may be deducted from the amount payable to the **Contractor** by the **City** under this **Contract** a penalty of fifty (\$50.00) dollars for each person for each **Day** during which such person was discriminated against or intimidated in violation of the provisions of this **Contract**; and

36.1.4 This **Contract** may be cancelled or terminated by the **City** and all moneys due or to become due hereunder may be forfeited, for a second or any subsequent violation of the terms or conditions of this Article 36.

36.1.5 This Article 36 covers all construction, alteration and repair of any public building or public work occurring in the State of New York and the manufacture, sale, and distribution of materials, equipment, and supplies to the extent that such operations are performed within the State of New York pursuant to this **Contract**.

36.2 The **Contractor** specifically agrees, as required by Section 6-108 of the Administrative Code, as amended, that:

36.2.1 It shall be unlawful for any person engaged in the construction, alteration or repair of buildings or engaged in the construction or repair of streets or highways pursuant to a **Contract** with the **City** or engaged in the manufacture, sale or distribution of materials, equipment or supplies pursuant to a **Contract** with the **City** to refuse to employ or to refuse to continue in any employment any person on account of the race, color or creed of such person.

36.2.2 It shall be unlawful for any person or any servant, agent or employee of any person, described in Article 36.1.2, to ask, indicate or transmit, orally or in writing, directly or indirectly, the race, color or creed or religious affiliation of any person employed or seeking employment from such person, firm or corporation.

36.2.3 Breach of the foregoing provisions shall be deemed a violation of a material provision of this **Contract**.

36.2.4 Any person, or the employee, manager or owner of or officer of such firm or corporation who shall violate any of the provisions of this Article 36.2 shall, upon

conviction thereof, be punished by a fine of not more than one hundred (\$100.00) dollars or by imprisonment for not more than thirty (30) **Days**, or both.

36.3 This **Contract** is subject to the requirements of Executive Order No. 50 (1980) ("E.O. 50"), as revised, and the rules and regulations promulgated thereunder. No contract will be awarded unless and until these requirements have been complied with in their entirety. By signing this **Contract**, the **Contractor** agrees that it:

36.3.1 Will not engage in any unlawful discrimination against any employee or applicant for employment because of race, creed, color, national origin, sex, age, disability, marital status or sexual orientation with respect to all employment decisions including, but not limited to, recruitment, hiring, upgrading, demotion, downgrading, transfer, training, rates of pay or other forms of compensation, layoff, termination, and all other terms and conditions of employment; and

36.3.2 Will not engage in any unlawful discrimination in the selection of **Subcontractors** on the basis of the owner's race, color, creed, national origin, sex, age, disability, marital status or sexual orientation; and

36.3.3 Will state in all solicitations or advertisements for employees placed by or on behalf of the **Contractor** that all qualified applicants will receive consideration for employment without unlawful discrimination based on race, creed, color, national origin, sex, age, citizens status, disability, marital status, sexual orientation, or that it is an equal employment opportunity employer; and

36.3.4 Will send to each labor organization or representative of workers with which it has a collective bargaining agreement or other contract or memorandum of understanding, written notification of its equal employment opportunity commitments under E.O. 50 and the rules and regulations promulgated thereunder; and

36.3.5 Will furnish, before the award of the **Contract**, all information and reports, including an employment report, that are required by E.O. 50, the rules and regulations promulgated thereunder, and orders of the City Department of Business Services, Division of Labor Services (**DLS**) and will permit access to its books, records, and accounts by the **DLS** for the purposes of investigation to ascertain compliance with such rules, regulations, and orders.

36.4 The **Contractor** understands that in the event of its noncompliance with the nondiscrimination clauses of this **Contract** or with any of such rules, regulations, or orders, such noncompliance shall constitute a material breach of this **Contract** and noncompliance with E.O. 50 and the rules and regulations promulgated thereunder. After a hearing held pursuant to the rules of the **DLS**, the Director of the **DLS** may direct the **Commissioner** to impose any or all of the following sanctions:

36.4.1 Disapproval of the **Contractor**; and/or

36.4.2 Suspension or termination of the **Contract**; and/or

36.4.3 Declaring the **Contractor** in default; and/or

36.4.4 In lieu of any of the foregoing sanctions, the Director of the **DLS** may impose an employment program.

In addition to any actions taken under this **Contract**, failure to comply with E.O. 50 and the rules and regulations promulgated thereunder, in one or more instances, may result in a **City Agency** declaring the **Contractor** to be non-responsible in future procurements. The **Contractor** further agrees that it will refrain from entering into any **Contract** or **Contract** modification subject to E.O. 50 and the rules and regulations promulgated thereunder with a **Subcontractor** who is not in compliance with the requirements of E.O. 50 and the rules and regulations promulgated thereunder.

36.5 The **Contractor** specifically agrees, as required by Section 6-123 of the Administrative Code, that:

36.5.1 The **Contractor** will not engage in any unlawful discriminatory practice in violation of Title 8 of the Administrative Code; and

36.5.2 Any failure to comply with this Article 36.5 may subject the **Contractor** to the remedies set forth in Section 6-123 of the Administrative Code, including, where appropriate, sanctions such as withholding of payment, imposition of an employment program, finding the **Contractor** to be in default, cancellation of the **Contract**, or any other sanction or remedy provided by **Law** or **Contract**.

#### **ARTICLE 37. LABOR LAW REQUIREMENTS**

37.1 The **Contractor** shall strictly comply with all applicable provisions of the Labor Law, as amended. Such compliance is a material term of this **Contract**.

37.2 The **Contractor** specifically agrees, as required by Labor Law Sections 220 and 220-d, as amended, that:

37.2.1 **Hours of Work:** No laborer, worker, or mechanic in the employ of the **Contractor**, **Subcontractor** or other person doing or contracting to do the whole or a part of the **Work** contemplated by this **Contract** shall be permitted or required to work more than eight (8) hours in any one (1) **Day**, or more than five (5) **Days** in any one (1) week, except as provided in the Labor Law and in cases of extraordinary emergency including fire, flood, or danger to life or property, or in the case of national emergency when so proclaimed by the President of the United States of America.

37.2.2 In situations in which there are not sufficient laborers, workers, and mechanics who may be employed to carry on expeditiously the **Work** contemplated by this **Contract** as a result of such restrictions upon the number of hours and **Days** of labor, and the immediate commencement or prosecution or completion without undue delay of the **Work** is necessary for the preservation of the **Site** and/or for the protection of the life and limb of the persons using the same, such laborers, workers, and mechanics shall be permitted or required to work more than eight (8) hours in any one (1) **Day**; or five (5) **Days** in any one (1) week; provided, however, that upon application of any **Contractor**, the **Commissioner** shall have first certified to the Commissioner of Labor of the State of New York (hereinafter "Commissioner of Labor") that such public **Work** is of an important nature and that a delay in carrying it to completion would result in serious disadvantage to the public; and provided, further, that such Commissioner of Labor shall have determined that such an emergency does in fact exist as provided in Labor Law Section 220.2.

37.2.3 Failure of the **Commissioner** to make such a certification to the Commissioner of Labor shall not entitle the **Contractor** to damages for delay or for any cause whatsoever.

37.2.4 Prevailing Rate of Wages: The wages to be paid for a legal day's **Work** to laborers, workers, or mechanics employed upon the **Work** contemplated by this **Contract** or upon any materials to be used thereon shall not be less than the "prevailing rate of wage" as defined in Labor Law Section 220, and as fixed by the **Comptroller** in the attached Schedule of Wage Rates and in updated schedules thereof. The prevailing wage rates and supplemental benefits to be paid are those in effect at the time the **Work** is being performed.

37.2.5 Requests for interpretation or correction in the Information for Bidders includes all requests for clarification of the classification of trades to be employed in the performance of the **Work** under this **Contract**. In the event that a trade not listed in the **Contract** is in fact employed during the performance of this **Contract**, the **Contractor** shall be required to obtain from the **Agency** the prevailing wage rates and supplementary benefits for the trades used and to complete the performance of this **Contract** at the price at which the **Contract** was awarded.

37.2.6 Minimum Wages: Except for employees whose wage is required to be fixed pursuant to Labor Law Section 220, all persons employed by the **Contractor** and any **Subcontractor** in the manufacture or furnishing of the supplies, materials, or equipment, or the furnishing of work, labor, or services, used in the performance of this **Contract**, shall be paid, without subsequent deduction or rebate unless expressly authorized by **Law**, not less than the sum mandated by **Law**.

37.3 Working Conditions: No part of the **Work**, labor or services shall be performed or rendered by the **Contractor** in any plants, factories, buildings or surroundings or under working conditions which are unsanitary or hazardous or dangerous to the health and safety of employees engaged in the performance of this **Contract**. Compliance with the safety, sanitary, and factory inspection **Laws** of the state in which the **Work** is to be performed shall be prima facie evidence of compliance with this Article 37.3.

37.4 Prevailing Wage Enforcement: The **Contractor** agrees to pay for all costs incurred by the **City** in enforcing prevailing wage requirements, including the cost of any investigation conducted by or on behalf of the **Agency** or the **Comptroller**, where the **City** discovers a failure to comply with any of the requirements of this Article 37 by the **Contractor** or its **Subcontractor(s)**. The **Contractor** also agrees that, should it fail or refuse to pay for any such investigation, the **Agency** is hereby authorized to deduct from a **Contractor's** account an amount equal to the cost of such investigation.

37.4.1 The Labor Law Section 220 and Section 220-d, as amended, provide that this **Contract** shall be forfeited and no sum paid for any **Work** done hereunder on a second conviction for willfully paying less than:

37.4.1(a) The stipulated prevailing wage scale as provided in Labor Law section 220, as amended, or

37.4.1(b) The stipulated minimum hourly wage scale as provided in Labor Law section 220-d, as amended.

37.4.2 For any breach or violation of either working conditions (Article 37.3) or minimum wages (Article 37.2.6) provisions, the party responsible therefor shall be liable to the **City** for liquidated damages, which may be withheld from any amounts due on any contracts with the **City** of such party responsible, or may be recovered in actions brought by the **City**

Corporation Counsel in the name of the **City**, in addition to damages for any other breach of this **Contract**, for a sum equal to the amount of any underpayment of wages due to any employee engaged in the performance of this **Contract**. In addition, the **Commissioner** shall have the right to cancel contracts and enter into other contracts for the completion of the original contract, with or without public letting, and the original **Contractor** shall be liable for any additional cost. All sums withheld or recovered as deductions, rebates, refunds, or underpayment of wages hereunder, shall be held in a special deposit account and shall be paid without interest, on order of the **Comptroller**, directly to the employees who have been paid less than minimum rates of pay as set forth herein and on whose account such sums were withheld or recovered, provided that no claims by employees for such payments shall be entertained unless made within two (2) years from the date of actual notice to the **Contractor** of the withholding or recovery of such sums by the **City**.

37.4.3 A determination by the **Comptroller** that a **Contractor** and/or its **Subcontractor** willfully violated Labor Law Section 220 will be forwarded to the **City's** five District Attorneys for review.

37.4.4 The **Contractor's** or **Subcontractor's** noncompliance with this Article 37.4 and Labor Law Section 220 may result in an unsatisfactory performance evaluation and the **Comptroller** may also find and determine that the **Contractor** or **Subcontractor** willfully violated the New York Labor Law.

37.4.4(a) An unsatisfactory performance evaluation for noncompliance with this Article 37.4 may result in a determination that the **Contractor** is a non-responsible bidder on subsequent procurements with the **City** and thus a rejection of a future award of a contract with the **City**, as well as any other sanctions provided for by Law.

37.4.4(b) Labor Law Section 220-b, as amended, provides that when two (2) final determinations have been rendered against a **Contractor** or **Subcontractor** within any consecutive six (6) year period determining that such **Contractor** or **Subcontractor** has willfully failed to pay the prevailing rate of wages or to provide supplements in accordance with the Labor Law and this Article 37.4, whether such failures were concurrent or consecutive and whether or not such final determinations concerning separate public works projects are rendered simultaneously, such **Contractor** or **Subcontractor** shall be ineligible to submit a bid on or be awarded any public works contract with the **City** for a period of five (5) years from the second final determination. If the final determination involves the falsification of payroll records or the kickback of wages or supplements, the **Contractor** or **Subcontractor** shall be ineligible to submit a bid on or be awarded any public works contract with the **City** for a period of five (5) years from the first final determination.

37.4.4(c) Labor Law Section 220, as amended, provides that the **Contractor** or **Subcontractor** found to have violated this Article 37.4 may be directed to make payment of wages or supplements including interest found to be due, and the **Contractor** or **Subcontractor** may be directed to make payment of a further sum as a civil penalty in an amount not exceeding twenty-five (25%) percent of the total amount found to be due.

37.5 The **Contractor** and its **Subcontractors** shall within ten (10) **Days** after mailing of a Notice of Award or written order, post in prominent and conspicuous places in each and every plant, factory, building, and structure where employees of the **Contractor** and its **Subcontractors** engaged in the

performance of this **Contract** are employed, notices furnished by the **City**, in relation to prevailing wages and supplements, minimum wages, and other stipulations contained in Sections 220 and 220-h of the Labor Law, and the **Contractor** and its **Subcontractors** shall continue to keep such notices posted in such prominent and conspicuous places until **Final Acceptance** of the supplies, materials, equipment, or **Work**, labor, or services required to be furnished or rendered under this **Contract**.

37.6 The **Contractor** shall strictly comply with all of the provisions of Articles 37.6.1 through 37.6.5, and provide for all workers, laborers or mechanics in its employ, the following:

37.6.1 Notices Posted At **Site**: Post, in a location designated by the **City**, schedules of prevailing wages and supplements for this **Project**, a copy of all re-determinations of such schedules for the **Project**, the Workers' Compensation Law Section 51 notice, all other notices required by Law to be posted at the **Site**, the **City** notice that this **Project** is a public works project on which each worker is entitled to receive the prevailing wages and supplements for the occupation at which he or she is working, and all other notices which the **City** directs the **Contractor** to post. The **Contractor** shall provide a surface for such notices which is satisfactory to the **City**. The **Contractor** shall maintain and keep current such notices in a legible manner and shall replace any notice or schedule which is damaged, defaced, illegible or removed for any reason. The **Contractor** shall post such notices before commencing any **Work** on the **Site** and shall maintain such notices until all **Work** on the **Site** is complete; and

37.6.2 Daily **Site** Sign-in Sheets: Maintain daily **Site** sign-in sheets, and require that **Subcontractors** maintain daily **Site** sign-in sheets for its employees, which include blank spaces for an employee's name to be both printed and signed, job title, date started and Social Security number, the time the employee began work and the time the employee left work, until **Final Acceptance** of the supplies, materials, equipment, or **Work**, labor, or services to be furnished or rendered under this **Contract** unless exception is granted by the **Comptroller** upon application by the **Agency**. In the alternative, subject to the approval of the **CCPO**, the **Contractor** and **Subcontractor** may maintain an electronic or biometric sign-in system, which provides the information required by this Article 37.6.2; and

37.6.3 Individual Employee Information Notices: Distribute a notice to each worker, laborer or mechanic employed under this **Contract**, in a form provided by the **Agency**, that this **Project** is a public works project on which each worker, laborer or mechanic is entitled to receive the prevailing rate of wages and supplements for the occupation at which he or she is working. If the total cost of the **Work** under this **Contract** is at least two hundred fifty thousand (\$250,000) dollars, such notice shall also include a statement that each worker, laborer or mechanic must be certified prior to performing any **Work** as having successfully completed a course in construction safety and health approved by the United States Department of Labor's Occupational Safety and Health Administration that is at least ten (10) hours in duration. Such notice shall be distributed to each worker before he or she starts performing any **Work** of this **Contract** and with the first paycheck after July first of each year. "Worker, laborer or mechanic" includes employees of the **Contractor** and all **Subcontractors** and all employees of suppliers entering the **Site**. At the time of distribution, the **Contractor** shall have each worker, laborer or mechanic sign a statement, in a form provided by the **Agency**, certifying that the worker has received the notice required by this Article 37.6.3, which signed statement shall be maintained with the payroll records required by this **Contract**; and

37.6.3(a) The **Contractor** and each **Subcontractor** shall notify each worker, laborer or mechanic employed under this **Contract** in writing of the prevailing rate of

wages for their particular job classification. Such notification shall be given to every worker, laborer, and mechanic on their first pay stub and with every pay stub thereafter; and

37.6.4 **Site Laminated Identification Badges:** The **Contractor** shall provide laminated identification badges which include a photograph of the worker's, laborer's or mechanic's face and indicate the worker's, laborer's or mechanic's name, trade, employer's name, and employment starting date (month/day/year). Further, the **Contractor** shall require as a condition of employment on the **Site**, that each and every worker, laborer or mechanic wear the laminated identification badge at all times and that it may be seen by any representative of the **City**. The **Commissioner** may grant a written waiver from the requirement that the laminated identification badge include a photograph if the **Contractor** demonstrates that the identity of an individual wearing a laminated identification badge can be easily verified by another method; and

37.6.5 **Language Other Than English Used On Site:** Provide the **ACCO** notice when three (3) or more employees (worker and/or laborer and/or mechanic) on the **Site**, at any time, speak a language other than English. The **ACCO** will then provide the **Contractor** the notices described in Article 37.6.1 in that language or languages as may be required. The **Contractor** is responsible for all distributions under this Article 37; and

37.6.6 **Provision of Records:** The **Contractor** and **Subcontractor(s)** shall produce within five (5) **Days** on the **Site** of the **Work** and upon a written order of the **Engineer**, the **Commissioner**, the **ACCO**, the **Agency EAO**, or the **Comptroller**, such records as are required to be kept by this Article 37.6; and

37.6.7 The **Contractor** and **Subcontractor(s)** shall pay employees by check or direct deposit. If this **Contract** is for an amount greater than one million (\$1,000,000) dollars, checks issued by the **Contractor** to covered employees shall be generated by a payroll service or automated payroll system (an in-house system may be used if approved by the **Agency**). For any subcontract for an amount greater than seven hundred fifty thousand (\$750,000) dollars, checks issued by a **Subcontractor** to covered employees shall be generated by a payroll service or automated payroll system (an in-house system may be used if approved by the **Agency**); and

37.6.8 The failure of the **Contractor** or **Subcontractor(s)** to comply with the provisions of Articles 37.6.1 through 37.6.7 may result in the **Commissioner** declaring the **Contractor** in default and/or the withholding of payments otherwise due under the **Contract**.

37.7 The **Contractor** and its **Subcontractors** shall keep such employment and payroll records as are required by Section 220 of the Labor Law. The failure of the **Contractor** or **Subcontractor(s)** to comply with the provisions of this Article 37.7 may result in the **Commissioner** declaring the **Contractor** in default and/or the withholding of payments otherwise due under the **Contract**.

37.8 At the time the **Contractor** makes application for each partial payment and for final payment, the **Contractor** shall submit to the **Commissioner** a written payroll certification, in the form provided by this **Contract**, of compliance with the prevailing wage, minimum wage, and other provisions and stipulations required by Labor Law Section 220 and of compliance with the training requirements of Labor Law Section 220-h set forth in Article 35.2. This certification of compliance shall be a condition precedent to payment and no payment shall be made to the **Contractor** unless and until each such certification shall have been submitted to and received by the **Commissioner**.

37.9 This **Contract** is executed by the **Contractor** with the express warranty and representation that the **Contractor** is not disqualified under the provisions of Section 220 of the Labor Law from the award of the **Contract**.

37.10 Any breach or violation of any of the foregoing shall be deemed a breach or violation of a material provision of this **Contract**, and grounds for cancellation thereof by the **City**.

#### **ARTICLE 38. PAYROLL REPORTS**

38.1 The **Contractor** and its **Subcontractor(s)** shall maintain on the **Site** during the performance of the **Work** the original payrolls or transcripts thereof which the **Contractor** and its **Subcontractor(s)** are required to maintain and shall submit such original payrolls or transcripts, subscribed and affirmed by it as true, within thirty (30) **Days** after issuance of its first payroll, and every thirty (30) **Days** thereafter, pursuant to Labor Law Section 220(3-a)(a)(iii). The **Contractor** and **Subcontractor(s)** shall submit such original payrolls or transcripts along with each and every payment requisition. If payment requisitions are not submitted at least once a month, the **Contractor** and its **Subcontractor(s)** shall submit original payrolls and transcripts both along with its payment requisitions and independently of its payment requisitions.

38.2 The **Contractor** shall maintain payrolls or transcripts thereof for six (6) years from the date of completion of the **Work** on this **Contract**. If such payrolls and transcripts are maintained outside of New York City after the completion of the **Work** and their production is required pursuant to this Article 38, the **Contractor** shall produce such records in New York City upon request by the **City**.

38.3 The **Contractor** and **Subcontractor(s)** shall comply with any written order, direction, or request made by the **Engineer**, the **Commissioner**, the **ACCO**, the **Agency EAO**, the **Agency Labor Law Investigator(s)**, or the **Comptroller**, to provide to the requesting party any of the following information and/or records within five (5) **Days** of such written order, direction, or request:

38.3.1 Such original payrolls or transcripts thereof subscribed and affirmed by it as true and the statements signed by each worker pursuant to this Chapter VIII; and/or

38.3.2 Attendance sheets for each **Day** on which any employee of the **Contractor** and/or any of the **Subcontractor(s)** performed **Work** on the **Site**, which attendance sheet shall be in a form acceptable to the **Agency** and shall provide information acceptable to the **Agency** to identify each such employee; and/or

38.3.3 Any other information to satisfy the **Engineer**, the **Commissioner**, the **ACCO**, the **Agency EAO**, the **Agency Labor Law Investigator(s)** or the **Comptroller**, that this Chapter VIII and the Labor Law, as to the hours of employment and prevailing rates of wages and/or supplemental benefits, are being observed.

38.4 The failure of the **Contractor** or **Subcontractor(s)** to comply with the provisions of Articles 38.1 and/or 38.2 may result in the **Commissioner** declaring the **Contractor** in default and/or the withholding of payments otherwise due under the **Contract**.

#### **ARTICLE 39. DUST HAZARDS**

39.1 Should a harmful dust hazard be created in performing the **Work** of this **Contract**, for the elimination of which appliances or methods have been approved by the Board of Standards and Appeals



of the City of New York, such appliances and methods shall be installed, maintained, and effectively operated during the continuance of such harmful dust hazard. Failure to comply with this provision after notice shall make this **Contract** voidable at the sole discretion of the **City**.

## **CHAPTER IX: PARTIAL AND FINAL PAYMENTS**

### **ARTICLE 40. CONTRACT PRICE**

40.1 The **City** shall pay, and the **Contractor** agrees to accept, in full consideration for the **Contractor's** performance of the **Work** subject to the terms and conditions hereof, the lump sum price or unit prices for which this **Contract** was awarded, plus the amount required to be paid for any **Extra Work** ordered by the **Commissioner** under Article 25, less credit for any **Work** omitted pursuant to Article 29.

### **ARTICLE 41. BID BREAKDOWN ON LUMP SUM**

41.1 Within fifteen (15) **Days** after the commencement date specified in the **Notice to Proceed** or **Order to Work**, unless otherwise directed by the **Resident Engineer**, the **Contractor** shall submit to the **Resident Engineer** a breakdown of its bid price, or of lump sums bid for items of the **Contract**, showing the various operations to be performed under the **Contract**, as directed in the progress schedule required under Article 9, and the value of each of such operations, the total of such items to equal the lump sum price bid. Said breakdown must be approved in writing by the **Resident Engineer**.

41.2 No partial payment will be approved until the **Contractor** submits a bid breakdown that is acceptable to the **Resident Engineer**.

41.3 The **Contractor** shall also submit such other information relating to the bid breakdown as directed by the **Resident Engineer**. Thereafter, the breakdown may be used only for checking the **Contractor's** applications for partial payments hereunder, but shall not be binding upon the **City**, the **Commissioner**, or the **Engineer** for any purpose whatsoever.

### **ARTICLE 42. PARTIAL PAYMENTS**

42.1 From time to time as the **Work** progresses satisfactorily, but not more often than once each calendar month (except where the **Commissioner** approves in writing the submission of invoices on a more frequent basis and for invoices relating to **Work** performed pursuant to a change order), the **Contractor** may submit to the **Engineer** a requisition for a partial payment in the prescribed form, which shall contain an estimate of the quantity and the fair value of the **Work** done during the payment period.

42.2 Partial payments may be made for materials, fixtures, and equipment in advance of their actual incorporation in the **Work**, as the **Commissioner** may approve, and upon the terms and conditions set forth in the General Conditions.

42.3 The **Contractor** shall also submit to the **Commissioner** in connection with every application for partial payment a verified statement in the form prescribed by the **Comptroller** setting forth the information required under Labor Law Section 220-a.

42.4 Within thirty (30) **Days** after receipt of a satisfactory payment application, and within sixty (60) **Days** after receipt of a satisfactory payment application in relation to **Work** performed pursuant to a change order, the **Engineer** will prepare and certify, and the **Commissioner** will approve, a voucher for a partial payment in the amount of such approved estimate, less any and all deductions authorized to be made by the **Commissioner** under the terms of this **Contract** or by **Law**.

#### **ARTICLE 43. PROMPT PAYMENT**

43.1 The Prompt Payment provisions of the **PPB Rules** in effect at the time of the bid will be applicable to payments made under this **Contract**. The provisions require the payment to the **Contractor** of interest on payments made after the required payment date, except as set forth in the **PPB Rules**.

43.2 The **Contractor** shall submit a proper invoice to receive payment, except where the **Contract** provides that the **Contractor** will be paid at predetermined intervals without having to submit an invoice for each scheduled payment.

43.3 Determination of interest due will be made in accordance with the **PPB Rules**.

43.4 If the **Contractor** is paid interest, the proportionate share(s) of that interest shall be forwarded by the **Contractor** to its **Subcontractor(s)**.

43.5 The **Contractor** shall pay each **Subcontractor** or **Materialman** not later than seven (7) **Days** after receipt of payment out of amounts paid to the **Contractor** by the **City** for **Work** performed by the **Subcontractor** or **Materialman** under this **Contract**.

43.5.1 If **Contractor** fails to make any payment to any **Subcontractor** or **Materialman** within seven (7) **Days** after receipt of payment by the **City** pursuant to this Article 43.5, then the **Contractor** shall pay interest on amounts due to such **Subcontractor** or **Materialman** at the rate of interest in effect on the date such payment is made by the **Contractor** computed in accordance with Section 756-b (1)(b) of the New York General Business Law. Accrual of interest shall commence on the **Day** immediately following the expiration of the seventh **Day** following receipt of payment by the **Contractor** from the **City** and shall end on the date on which payment is made.

43.6 The **Contractor** shall include in each of its subcontracts a provision requiring each **Subcontractor** to make payment to each of its **Subcontractors** or **Materialmen** for **Work** performed under this **Contract** in the same manner and within the same time period set forth above.

#### **ARTICLE 44. SUBSTANTIAL COMPLETION PAYMENT**

44.1 The **Contractor** shall submit with the **Substantial Completion** requisition:

44.1.1 A final verified statement of any pending Article 27 disputes in accordance with the **PPB Rules** and this **Contract** and any and all alleged claims against the **City**, in any way connected with or arising out of this **Contract** (including those as to which details may have been furnished pursuant to Articles 11, 27, 28, and 30) setting forth with respect to each such claim the total amount thereof, the various items of labor and materials included therein, and the alleged value of each item; and if the alleged claim be one for delay, the alleged cause of each such delay, the period or periods of time, giving the dates when the

**Contractor** claims the performance of the **Work** or a particular part thereof was delayed, and an itemized statement and breakdown of the amount claimed for each such delay.

44.1.1(a) With respect to each such claim, the **Commissioner**, the **Comptroller** and, in the event of litigation, the **City Corporation Counsel** shall have the same right to inspect, and to make extracts or copies of, the **Contractor's** books, vouchers, records, etc., as is referred to in Articles 11, 27, 28, and 30. Nothing contained in this Article 44.1.1(a) is intended to or shall relieve the **Contractor** from the obligation of complying strictly with Articles 11, 27, 28, and 30. The **Contractor** is warned that unless such claims are completely set forth as herein required, the **Contractor** upon acceptance of the **Substantial Completion** payment pursuant to this Article 44, will have waived any such claims.

44.1.2 **A Final Approved Punch List.**

44.1.3 Where required, a request for an extension of time to achieve **Substantial Completion** or final extension of time.

44.2 The **Commissioner** shall issue a voucher calling for payment of any part or all of the balance due for **Work** performed under the **Contract**, including monies retained under Article 21, less any and all deductions authorized to be made by the **Commissioner**, under this **Contract** or by **Law**, and less twice the amount the **Commissioner** considers necessary to ensure the completion of the balance of the **Work** by the **Contractor**. Such a payment shall be considered a partial and not a final payment. No **Substantial Completion** payment shall be made under this Article 44 where the **Contractor** failed to complete the **Work** within the time fixed for such completion in the Schedule A of the General Conditions, or within the time to which completion may have been extended, until an extension or extensions of time for the completion of **Work** have been acted upon pursuant to Article 13.

44.3 No further partial payments shall be made to the **Contractor** after **Substantial Completion**, except the **Substantial Completion** payment and payment pursuant to any **Contractor's** requisition that were properly filed with the **Commissioner** prior to the date of **Substantial Completion**; however, the **Commissioner** may grant a waiver for further partial payments after the date of **Substantial Completion** to permit payments for change order **Work** and/or release of retainage and deposits pursuant to Articles 21 and 24. Such waiver shall be in writing.

44.4 The **Contractor** acknowledges that nothing contained in this Article 44 is intended to or shall in any way diminish the force and effect of Article 13.

#### **ARTICLE 45. FINAL PAYMENT**

45.1 After completion and **Final Acceptance** of the **Work**, the **Contractor** shall submit all required certificates and documents, together with a requisition for the balance claimed to be due under the **Contract**, less the amount authorized to be retained for maintenance under Article 24. Such submission shall be within 90 days of the date of the **Commissioner's** written determination of **Final Acceptance**, or within such additional time as may be granted by the **Commissioner** in writing. If the **Contractor** fails to submit all required certificates and documents within the time allowed, no payment of the balance claimed shall be made to the **Contractor** and the **Contractor** shall be deemed to have forfeited its right to payment of any balance claimed. A verified statement similar to that required in connection with applications for partial payments shall also be submitted to the **Commissioner**.

45.2 Amended Verified Statement of Claims: The **Contractor** shall also submit with the final requisition any amendments to the final verified statement of any pending dispute resolution procedures in accordance with the **PPB** Rules and this **Contract** and any and all alleged claims against the **City**, in any way connected with or arising out of this **Contract** (including those as to which details may have been furnished pursuant to Articles 11, 27, 28, and 30) that have occurred subsequent to **Substantial Completion**, setting forth with respect to each such claim the total amount thereof, the various items of labor and materials included therein, and the alleged value of each such item; and if the alleged claim be one for delay, the alleged cause of each such delay, the period or periods of time, giving the dates when the **Contractor** claims the performance of the **Work** or a particular part thereof was delayed, and an itemized statement and breakdown of the amount claimed for each such delay. With reference to each such claim, the **Commissioner**, the **Comptroller** and, in the event of litigation, the **City Corporation Counsel** shall have the same right to inspect, and to make extracts or copies of, the **Contractor's** books, vouchers, records, etc., as is referred to in Articles 11, 27, 28, and 30. Nothing contained in this Article 45.2, is intended to or shall relieve the **Contractor** from the obligation of complying strictly with Articles 11, 27, 28, and 30. The **Contractor** is warned that unless such claims are completely set forth as herein required, the **Contractor**, upon acceptance of the Final Payment pursuant to Article 46, will have waived any such claims.

45.3 Preparation of Final Voucher: Upon determining the balance due hereunder other than on account of claims, the **Engineer** will prepare and certify, for the **Commissioner's** approval, a voucher for final payment in that amount less any and all deductions authorized to be made by the **Commissioner** under this **Contract** or by **Law**. In the case of a lump sum **Contract**, the **Commissioner** shall certify the voucher for final payment within thirty (30) **Days** from the date of completion and acceptance of the **Work**, provided all requests for extensions of time have been acted upon.

45.3.1 All prior certificates and vouchers upon which partial payments were made, being merely estimates made to enable the **Contractor** to prosecute the **Work** more advantageously, shall be subject to correction in the final voucher, and the certification of the **Engineer** thereon and the approval of the **Commissioner** thereof, shall be conditions precedent to the right of the **Contractor** to receive any money hereunder. Such final voucher shall be binding and conclusive upon the **Contractor**.

45.3.2 Payment pursuant to such final voucher, less any deductions authorized to be made by the **Commissioner** under this **Contract** or by **Law**, shall constitute the final payment, and shall be made by the **Comptroller** within thirty (30) **Days** after the filing of such voucher in his/her office.

45.4 The **Contractor** acknowledges that nothing contained in this Article 45 is intended to or shall in any way diminish the force and effect of Article 13.

#### **ARTICLE 46. ACCEPTANCE OF FINAL PAYMENT**

46.1 The acceptance by the **Contractor**, or by anyone claiming by or through it, of the final payment, whether such payment be made pursuant to any judgment of any court, or otherwise, shall constitute and operate as a release of the **City** from any and all claims of and liability to the **Contractor** for anything heretofore done or furnished for the **Contractor** relating to or arising out of this **Contract** and the **Work** done hereunder, and for any prior act, neglect or default on the part of the **City** or any of its officials, agents or employees, excepting only a claim against the **City** for the amounts deducted or retained in accordance with the terms and provisions of this **Contract** or by **Law**, and excepting any claims, not otherwise waived, or any pending dispute resolution procedures which are contained in the

verified statement filed with the **Contractor's** substantial and final requisitions pursuant to Articles 44 and 45.

46.2 The **Contractor** is warned that the execution by it of a release, in connection with the acceptance of the final payment, containing language purporting to reserve claims other than those herein specifically excepted from the operation of this Article 46, or those for amounts deducted by the **Commissioner** from the final requisition or from the final payment as certified by the **Engineer** and approved by the **Commissioner**, shall not be effective to reserve such claims, anything stated to the **Contractor** orally or in writing by any official, agent or employee of the **City** to the contrary notwithstanding.

46.3 Should the **Contractor** refuse to accept the final payment as tendered by the **Comptroller**, it shall constitute a waiver of any right to interest thereon.

46.4 The **Contractor**, however, shall not be barred by this Article 46 from commencing an action for breach of **Contract** to the extent permitted by **Law** and by the terms of the **Contract** for any claims that are contained in the verified statement filed with the **Contractor's** substantial and final requisitions pursuant to Articles 44 and 45 or that arose after submission of the final payment requisition, provided that a detailed and verified statement of claim is served upon the contracting **Agency** and **Comptroller** not later than forty (40) **Days** after the making of such final payment by electronic funds transfer (EFT) or the mailing of such final payment. The statement shall specify the items upon which the claim will be based and any such claim shall be limited to such items.

#### **ARTICLE 47. APPROVAL BY PUBLIC DESIGN COMMISSION**

47.1 All works of art, including paintings, mural decorations, stained glass, statues, bas-reliefs, and other sculptures, monuments, fountains, arches, and other structures of a permanent character intended for ornament or commemoration, and every design of the same to be used in the performance of this **Contract**, and the design of all bridges, approaches, buildings, gates, fences, lamps, or structures to be erected, pursuant to the terms of this **Contract**, shall be submitted to the Art Commission, d/b/a the Public Design Commission of the City of New York, and shall be approved by the Public Design Commission prior to the erection or placing in position of the same. The final payment shall not become due or payable under this **Contract** unless and until the Public Design Commission shall certify that the design for the **Work** herein contracted for has been approved by the said Public Design Commission, and that the same has been executed in substantial accordance with the design so approved, pursuant to the provisions of Chapter 37, Section 854 of the **City Charter**, as amended.

### **CHAPTER X: CONTRACTOR'S DEFAULT**

#### **ARTICLE 48. COMMISSIONER'S RIGHT TO DECLARE CONTRACTOR IN DEFAULT**

48.1 In addition to those instances specifically referred to in other Articles herein, the **Commissioner** shall have the right to declare the **Contractor** in default of this **Contract** if:

48.1.1 The **Contractor** fails to commence **Work** when notified to do so by the **Commissioner**; or if

48.1.2 The **Contractor** shall abandon the **Work**; or if

48.1.3 The **Contractor** shall refuse to proceed with the **Work** when and as directed by the **Commissioner**; or if

48.1.4 The **Contractor** shall, without just cause, reduce its working force to a number which, if maintained, would be insufficient, in the opinion of the **Commissioner**, to complete the **Work** in accordance with the progress schedule; or if

48.1.5 The **Contractor** shall fail or refuse to increase sufficiently such working force when ordered to do so by the **Commissioner**; or if

48.1.6 The **Contractor** shall sublet, assign, transfer, convert or otherwise dispose of this **Contract** other than as herein specified; or sell or assign a majority interest in the **Contractor**; or if

48.1.7 The **Contractor** fails to secure and maintain all required insurance; or if

48.1.8 A receiver or receivers are appointed to take charge of the **Contractor's** property or affairs; or if

48.1.9 The **Commissioner** shall be of the opinion that the **Contractor** is or has been unnecessarily or unreasonably or willfully delaying the performance and completion of the **Work**, or the award of necessary subcontracts, or the placing of necessary material and equipment orders; or if

48.1.10 The **Commissioner** shall be of the opinion that the **Contractor** is or has been willfully or in bad faith violating any of the provisions of this **Contract**; or if

48.1.11 The **Commissioner** shall be of the opinion that the **Work** cannot be completed within the time herein provided therefor or within the time to which such completion may have been extended; provided, however, that the impossibility of timely completion is, in the **Commissioner's** opinion, attributable to conditions within the **Contractor's** control; or if

48.1.12 The **Work** is not completed within the time herein provided therefor or within the time to which the **Contractor** may be entitled to have such completion extended; or if

48.1.13 Any statement or representation of the **Contractor** in the **Contract** or in any document submitted by the **Contractor** with respect to the **Work**, the **Project**, or the **Contract** (or for purposes of securing the **Contract**) was untrue or incorrect when made; or if

48.1.14 The **Contractor** or any of its officers, directors, partners, five (5%) percent shareholders, principals, or other persons substantially involved in its activities, commits any of the acts or omissions specified as the grounds for debarment in the **PPB Rules**.

48.2 Before the **Commissioner** shall exercise his/her right to declare the **Contractor** in default, the **Commissioner** shall give the **Contractor** an opportunity to be heard, upon not less than two (2) **Days'** notice.

#### ARTICLE 49. EXERCISE OF THE RIGHT TO DECLARE DEFAULT

49.1 The right to declare the **Contractor** in default for any of the grounds specified or referred to in Article 48 shall be exercised by sending the **Contractor** a notice, signed by the **Commissioner**, setting forth the ground or grounds upon which such default is declared (hereinafter referred to as a "Notice of Default").

49.2 The **Commissioner's** determination that the **Contractor** is in default shall be conclusive, final, and binding on the parties and such a finding shall preclude the **Contractor** from commencing a plenary action for any damages relating to the **Contract**. If the **Contractor** protests the determination of the **Commissioner**, the **Contractor** may commence an action in a court of competent jurisdiction of the State of New York under Article 78 of the New York Civil Practice Law and Rules.

#### ARTICLE 50. QUITTING THE SITE

50.1 Upon receipt of such notice the **Contractor** shall immediately discontinue all further operations under this **Contract** and shall immediately quit the **Site**, leaving untouched all plant, materials, equipment, tools, and supplies then on the **Site**.

#### ARTICLE 51. COMPLETION OF THE WORK

51.1 The **Commissioner**, after declaring the **Contractor** in default, may then have the **Work** completed by such means and in such manner, by contract with or without public letting, or otherwise, as he/she may deem advisable, utilizing for such purpose such of the **Contractor's** plant, materials, equipment, tools, and supplies remaining on the **Site**, and also such **Subcontractors**, as he/she may deem advisable.

51.2 After such completion, the **Commissioner** shall make a certificate stating the expense incurred in such completion, which shall include the cost of re-letting and also the total amount of liquidated damages (at the rate provided for in the **Contract**) from the date when the **Work** should have been completed by the **Contractor** in accordance with the terms hereof to the date of actual completion of the **Work**. Such certificate shall be binding and conclusive upon the **Contractor**, its sureties, and any person claiming under the **Contractor**, as to the amount thereof.

51.3 The expense of such completion, including any and all related and incidental costs, as so certified by the **Commissioner**, and any liquidated damages assessed against the **Contractor**, shall be charged against and deducted out of monies which are earned by the **Contractor** prior to the date of default. Should the expense of such completion, as certified by the **Commissioner**, exceed the total sum which would have been payable under the **Contract** if it had been completed by the **Contractor**, any excess shall be paid by the **Contractor**.

#### ARTICLE 52. PARTIAL DEFAULT

52.1 In case the **Commissioner** shall declare the **Contractor** in default as to a part of the **Work** only, the **Contractor** shall discontinue such part, shall continue performing the remainder of the **Work** in strict conformity with the terms of this **Contract**, and shall in no way hinder or interfere with any **Other Contractor(s)** or persons whom the **Commissioner** may engage to complete the **Work** as to which the **Contractor** was declared in default.

52.2 The provisions of this Chapter relating to declaring the **Contractor** in default as to the entire **Work** shall be equally applicable to a declaration of partial default, except that the **Commissioner** shall be entitled to utilize for completion of the part of the **Work** as to which the **Contractor** was declared in default only such plant, materials, equipment, tools, and supplies as had been previously used by the **Contractor** on such part.

#### **ARTICLE 53. PERFORMANCE OF UNCOMPLETED WORK**

53.1 In completing the whole or any part of the **Work** under the provisions of this Chapter X, the **Commissioner** shall have the power to depart from or change or vary the terms and provisions of this **Contract**, provided, however, that such departure, change or variation is made for the purpose of reducing the time or expense of such completion. Such departure, change or variation, even to the extent of accepting a lesser or different performance, shall not affect the conclusiveness of the **Commissioner's** certificate of the cost of completion referred to in Article 51, nor shall it constitute a defense to an action to recover the amount by which such certificate exceeds the amount which would have been payable to the **Contractor** hereunder but for its default.

#### **ARTICLE 54. OTHER REMEDIES**

54.1 In addition to the right to declare the **Contractor** in default pursuant to this Chapter X, the **Commissioner** shall have the absolute right, in his/her sole discretion and without a hearing, to complete or cause to be completed in the same manner as described in Articles 51 and 53, any or all unsatisfactory or uncompleted punch list **Work** that remains after the completion date specified in the **Final Approved Punch List**. A written notice of the exercise of this right shall be sent to the **Contractor** who shall immediately quit the **Site** in accordance with the provisions of Article 50.

54.2 The expense of completion permitted under Article 54.1, including any and all related and incidental costs, as so certified by the **Commissioner**, shall be charged against and deducted out of monies which have been earned by the **Contractor** prior to the date of the exercise of the right set forth in Article 54.1; the balance of such monies, if any, subject to the other provisions of this **Contract**, to be paid to the **Contractor** without interest after such completion. Should the expense of such completion, as certified by the **Commissioner**, exceed the total sum which would have been payable under the **Contract** if it had been completed by the **Contractor**, any excess shall be paid by the **Contractor**.

54.3 The previous provisions of this Chapter X shall be in addition to any and all other remedies available under **Law** or in equity.

54.4 The exercise by the **City** of any remedy set forth herein shall not be deemed a waiver by the **City** of any other legal or equitable remedy contained in this **Contract** or provided under **Law**.

### **CHAPTER XI: MISCELLANEOUS PROVISIONS**

#### **ARTICLE 55. CONTRACTOR'S WARRANTIES**

55.1 In consideration of, and to induce, the award of this **Contract** to the **Contractor**, the **Contractor** represents and warrants:



55.1.1 That it is financially solvent, sufficiently experienced and competent to perform the **Work**; and

55.1.2 That the facts stated in its bid and the information given by it pursuant to the Information for Bidders is true and correct in all respects; and

55.1.3 That it has read and complied with all requirements set forth in the **Contract**.

#### **ARTICLE 56. CLAIMS AND ACTIONS THEREON**

56.1 Any claim, that is not subject to dispute resolution under the **PPB Rules** or this **Contract**, against the **City** for damages for breach of **Contract** shall not be made or asserted in any action, unless the **Contractor** shall have strictly complied with all requirements relating to the giving of notice and of information with respect to such claims, as herein before provided.

56.2 Nor shall any action be instituted or maintained on any such claims unless such action is commenced within six (6) months after **Substantial Completion**; except that:

56.2.1 Any claims arising out of events occurring after **Substantial Completion** and before **Final Acceptance** of the **Work** shall be asserted within six (6) months of **Final Acceptance** of the **Work**;

56.2.2 If the **Commissioner** exercises his/her right to complete or cause to complete any or all unsatisfactory or uncompleted punch list **Work** that remains after the completion date specified in the **Final Approved Punch List** pursuant to Article 54, any such action shall be commenced within six (6) months from the date the **Commissioner** notifies the **Contractor** in writing that he/she has exercised such right. Any claims for monies deducted, retained or withheld under the provisions of this **Contract** shall be asserted within six (6) months after the date when such monies otherwise become due and payable hereunder; and

56.2.3 If the **Commissioner** exercises his/her right to terminate the **Contract** pursuant to Article 64, any such action shall be commenced within six (6) months of the date the **Commissioner** exercises said right.

#### **ARTICLE 57. INFRINGEMENT**

57.1 The **Contractor** shall be solely responsible for and shall defend, indemnify, and hold the **City** harmless from any and all claims (even if the allegations of the lawsuit are without merit) and judgments for damages and from costs and expenses to which the **City** may be subject to or which it may suffer or incur allegedly arising out of or in connection with any infringement by the **Contractor** of any copyright, trade secrets, trademark or patent rights or any other property or personal right of any third party by the **Contractor** and/or its **Subcontractors** in the performance or completion of the **Work**. Insofar as the facts or **Law** relating to any claim would preclude the **City** from being completely indemnified by the **Contractor**, the **City** shall be partially indemnified by the **Contractor** to the fullest extent permitted by **Law**.

**ARTICLE 58. NO CLAIM AGAINST OFFICIALS, AGENTS OR EMPLOYEES**

58.1 No claim whatsoever shall be made by the **Contractor** against any official, agent or employee of the **City** for, or on account of, anything done or omitted to be done in connection with this **Contract**.

**ARTICLE 59. SERVICE OF NOTICES**

59.1 The **Contractor** hereby designates the business address, fax number, and email address specified in its bid, as the place where all notices, directions or other communications to the **Contractor** may be delivered, or to which they may be mailed. Any notice, direction, or communication from either party to the other shall be in writing and shall be deemed to have been given when (i) delivered personally; (ii) sent by certified mail, return receipt requested; (iii) delivered by overnight or same day courier service in a properly addressed envelope with confirmation; or (iv) sent by fax or email and, unless receipt of the fax or e-mail is acknowledged by the recipient by fax or e-mail, deposited in a post office box regularly maintained by the United States Postal Service in a properly addressed, postage pre-paid envelope.

59.2 **Contractor's** notice address, email address, or fax number may be changed at any time by an instrument in writing, executed and acknowledged by the **Contractor**, and delivered to the **Commissioner**.

59.3 Nothing herein contained shall, however, be deemed to preclude or render inoperative the service of any notice, direction or other communication upon the **Contractor** personally, or, if the **Contractor** is a corporation, upon any officer thereof.

**ARTICLE 60. UNLAWFUL PROVISIONS DEEMED STRICKEN FROM CONTRACT**

60.1 If this **Contract** contains any unlawful provision not an essential part of the **Contract** and which shall not appear to have been a controlling or material inducement to the making thereof, the same shall be deemed of no effect and shall, upon notice by either party, be deemed stricken from the **Contract** without affecting the binding force of the remainder.

**ARTICLE 61. ALL LEGAL PROVISIONS DEEMED INCLUDED**

61.1 It is the intent and understanding of the parties to this **Contract** that each and every provision of **Law** required to be inserted in this **Contract** shall be and is inserted herein. Furthermore, it is hereby stipulated that every such provision is to be deemed to be inserted herein, and if, through mistake or otherwise, any such provision is not inserted, or is not inserted in correct form, then this **Contract** shall forthwith upon the application of either party be amended by such insertion so as to comply strictly with the **Law** and without prejudice to the rights of either party hereunder.

**ARTICLE 62. TAX EXEMPTION**

62.1 The **City** is exempt from payment of Federal, State, and local taxes, including sales and compensating use taxes of the State of New York and its cities and counties on all tangible personal property sold to the **City** pursuant to the provisions of this **Contract**. These taxes are not to be included in bids. However, this exemption does not apply to tools, machinery, equipment or other property leased by or to the **Contractor**, **Subcontractor** or **Materialman** or to tangible personal property which, even

though it is consumed, is not incorporated into the completed **Work** (consumable supplies) and tangible personal property that the **Contractor** is required to remove from the **Site** during or upon completion of the **Work**. The **Contractor** and its **Subcontractors** and **Materialmen** shall be responsible for and pay any and all applicable taxes, including sales and compensating use taxes, on such leased tools, machinery, equipment or other property and upon all such consumable supplies and tangible personal property that the **Contractor** is required to remove from the **Site** during or upon completion of the **Work**.

62.2 The **Contractor** agrees to sell and the **City** agrees to purchase all tangible personal property, other than consumable supplies and other tangible personal property that the **Contractor** is required to remove from the **Site** during or upon completion of the **Work**, that is required, necessary or proper for or incidental to the construction of the **Project** covered by this **Contract**. The sum paid under this **Contract** for such tangible personal property shall be in full payment and consideration for the sale of such tangible personal property.

62.2.1 The **Contractor** agrees to construct the **Project** and to perform all **Work**, labor and services rendered, necessary, proper or incidental thereto for the sum shown in the bid for the performance of such **Work**, labor, and services, and the sum so paid pursuant to this **Contract** for such **Work**, labor, and services, shall be in full consideration for the performance by the **Contractor** of all its duties and obligations under this **Contract** in connection with said **Work**, labor, and services.

62.3 20 NYCRR Section 541.3(d) provides that a **Contractor's** purchases of tangible personal property that is either incorporated into real property owned by a governmental entity or purchased for and sold to a governmental entity are exempt from sales and use tax. The **City** shall not pay sales tax for any such tangible personal property that it purchases from the **Contractor** pursuant to the **Contract**. With respect to such tangible personal property, the **Contractor**, at the request of the **City**, shall furnish to the **City** such bills of sale and other instruments as may be required by the **City**, properly executed, acknowledged and delivered assuring to the **City** title to such tangible personal property, free of liens and/or encumbrances, and the **Contractor** shall mark or otherwise identify all such tangible personal property as the property of the **City**.

62.4 Title to all tangible personal property to be sold by the **Contractor** to the **City** pursuant to the provisions of the **Contract** shall immediately vest in and become the sole property of the **City** upon delivery of such tangible personal property to the **Site**. Notwithstanding such transfer of title, the **Contractor** shall have the full and continuing responsibility to install such tangible personal property in accordance with the provisions of this **Contract**, protect it, maintain it in a proper condition and forthwith repair, replace and make good any damage thereto, theft or disappearance thereof, and furnish additional tangible personal property in place of any that may be lost, stolen or rendered unusable, without cost to the **City**, until such time as the **Work** covered by the **Contract** is fully accepted by the **City**. Such transfer of title shall in no way affect any of the **Contractor's** obligations hereunder. In the event that, after title has passed to the **City**, any of the tangible personal property is rejected as being defective or otherwise unsatisfactory, title to all such tangible personal property shall be deemed to have been transferred back to the **Contractor**.

62.5 The purchase by **Subcontractors** or **Materialmen** of tangible personal property to be sold hereunder shall be a purchase or procurement for resale to the **Contractor** (either directly or through other **Subcontractors**) and therefore not subject to the aforesaid sales and compensating use taxes, provided that the subcontracts and purchase agreements provide for the resale of such tangible personal property and that such subcontracts and purchase agreements are in a form similar to this **Contract** with respect to the separation of the sale of consumable supplies and tangible personal property that the

**Contractor** is required to remove from the **Site** during or upon completion of the **Work** from the **Work** and labor, services, and any other matters to be provided, and provided further that the subcontracts and purchase agreements provide separate prices for tangible personal property and all other services and matters. Such separation shall actually be followed in practice, including the separation of payments for tangible personal property from the payments for other **Work** and labor and other things to be provided.

62.6 The **Contractor** and its **Subcontractors** and **Materialmen** shall furnish a **Contractor Exempt Purchase Certificate** to all persons, firms or corporations from which they purchase tangible personal property for the performance of the **Work** covered by this **Contract**.

62.7 In the event any of the provisions of this Article 62 shall be deemed to be in conflict with any other provisions of this **Contract** or create any ambiguity, then the provisions of this Article 62 shall control.

### **ARTICLE 63. INVESTIGATION(S) CLAUSE**

63.1 The parties to this **Contract** agree to cooperate fully and faithfully with any investigation, audit or inquiry conducted by a United States, a State of New York (State) or a **City** governmental agency or authority that is empowered directly or by designation to compel the attendance of witnesses and to examine witnesses under oath, or conducted by the Inspector General of a governmental agency that is a party in interest to the transaction, submitted bid, submitted proposal, contract, lease, permit or license that is the subject of the investigation, audit or inquiry.

63.2 If any person who has been advised that his/her statement, and any information from such statement, will not be used against him/her in any subsequent criminal proceeding refuses to testify before a grand jury or other governmental agency or authority empowered directly or by designation to compel the attendance of witnesses and to examine witnesses under oath concerning the award of or performance under any transaction, agreement, lease, permit, contract, or license entered into with the **City**, the State, or any political subdivision or public authority thereof, or the Port Authority of New York and New Jersey, or any local development corporation within the **City**, or any public benefit corporation organized under the **Laws** of the State of New York, or;

63.3 If any person refuses to testify for a reason other than the assertion of his/her privilege against self incrimination in an investigation, audit or inquiry conducted by a **City** or State governmental agency or authority empowered directly or by designation to compel the attendance of witnesses and to take testimony under oath, or by the Inspector General of the governmental agency that is a party in interest in, and is seeking testimony concerning the award of, or performance under any transaction, agreement, lease, permit, contract, or license entered into with the **City**, the State, or any political subdivision thereof or any local development corporation within the **City**, then;

63.4 The **Commissioner** whose **Agency** is a party in interest to the transaction, submitted bid, submitted proposal, contract, lease, permit, or license shall convene a hearing, upon not less than five (5) **Days'** written notice to the parties involved to determine if any penalties should attach for the failure of a person to testify.

63.5 If any non-governmental party to the hearing requests an adjournment, the **Commissioner** who convened the hearing may, upon granting the adjournment, suspend any contract, lease, permit, or license, pending the final determination pursuant to Article 63.7 without the **City** incurring any penalty or damages for delay or otherwise.

63.6 The penalties which may attach after a final determination by the **Commissioner** may include but shall not exceed:

63.6.1 The disqualification for a period not to exceed five (5) years from the date of an adverse determination for any person, or any entity of which such person was a member at the time the testimony was sought, from submitting bids for, or transacting business with, or entering into or obtaining any contract, lease, permit or license with or from the **City**; and/or

63.6.2 The cancellation or termination of any and all such existing **City** contracts, leases, permits or licenses that the refusal to testify concerns and that have not been assigned as permitted under this **Contract**, nor the proceeds of which pledged, to an unaffiliated and unrelated institutional lender for fair value prior to the issuance of the notice scheduling the hearing, without the **City** incurring any penalty or damages on account of such cancellation or termination; monies lawfully due for goods delivered, work done, rentals, or fees accrued prior to the cancellation or termination shall be paid by the **City**.

63.7 The **Commissioner** shall consider and address in reaching his/her determination and in assessing an appropriate penalty the factors in Articles 63.7.1 and 63.7.2. The **Commissioner** may also consider, if relevant and appropriate, the criteria established in Articles 63.7.3 and 63.7.4, in addition to any other information which may be relevant and appropriate:

63.7.1 The party's good faith endeavors or lack thereof to cooperate fully and faithfully with any governmental investigation or audit, including but not limited to the discipline, discharge, or disassociation of any person failing to testify, the production of accurate and complete books and records, and the forthcoming testimony of all other members, agents, assignees or fiduciaries whose testimony is sought.

63.7.2 The relationship of the person who refused to testify to any entity that is a party to the hearing, including but not limited to, whether the person whose testimony is sought has an ownership interest in the entity and/or the degree of authority and responsibility the person has within the entity.

63.7.3 The nexus of the testimony sought to the subject entity and its contracts, leases, permits or licenses with the **City**.

63.7.4 The effect a penalty may have on an unaffiliated and unrelated party or entity that has a significant interest in an entity subject to penalties under Article 63.6, provided that the party or entity has given actual notice to the **Commissioner** upon the acquisition of the interest, or at the hearing called for in Article 63.4, gives notice and proves that such interest was previously acquired. Under either circumstance the party or entity shall present evidence at the hearing demonstrating the potential adverse impact a penalty will have on such person or entity.

#### 63.8 Definitions:

63.8.1 The term "license" or "permit" as used in this Article 63 shall be defined as a license, permit, franchise or concession not granted as a matter of right.

63.8.2 The term "person" as used in this Article 63 shall be defined as any natural person doing business alone or associated with another person or entity as a partner, director, officer, principal or employee.

63.8.3 The term "entity" as used in this Article 63 shall be defined as any firm, partnership, corporation, association, joint venture, or person that receives monies, benefits, licenses, leases, or permits from or through the City or otherwise transacts business with the City.

63.8.4 The term "member" as used in this Article 63 shall be defined as any person associated with another person or entity as a partner, director, officer, principal or employee.

63.9 In addition to and notwithstanding any other provision of this Contract, the Commissioner may in his/her sole discretion terminate this Contract upon not less than three (3) Days' written notice in the event the Contractor fails to promptly report in writing to the Commissioner of the Department of Investigations ("DOI") of the City any solicitation of money, goods, requests for future employment or other benefit or thing of value, by or on behalf of any employee of the City or other person, firm, corporation or entity for any purpose which may be related to the procurement or obtaining of this Contract by the Contractor, or affecting the performance of this Contract.

#### ARTICLE 64. TERMINATION BY THE CITY

64.1 In addition to termination pursuant to any other article of this Contract, the Commissioner may, at any time, terminate this Contract by written notice to the Contractor. In the event of termination, the Contractor shall, upon receipt of such notice, unless otherwise directed by the Commissioner:

64.1.1 Stop Work on the date specified in the notice;

64.1.2 Take such action as may be necessary for the protection and preservation of the City's materials and property;

64.1.3 Cancel all cancelable orders for material and equipment;

64.1.4 Assign to the City and deliver to the Site or another location designated by the Commissioner, any non-cancelable orders for material and equipment that is not capable of use except in the performance of this Contract and has been specifically fabricated for the sole purpose of this Contract and not incorporated in the Work;

64.1.5 Take no action which will increase the amounts payable by the City under this Contract.

64.2 In the event of termination by the City pursuant to this Article 64, payment to the Contractor shall be in accordance with Articles 64.2.1, 64.2.2 or 64.2.3, to the extent that each respective article applies.

64.2.1 Lump Sum Contracts or Items: On all lump sum Contracts, or on lump sum items in a Contract, the City will pay the Contractor the sum of the amounts described in Articles 64.2.1(a) and 64.2.1(b), less all payments previously made pursuant to this Contract. On lump sum Contracts only, the City will also pay the Contractor an additional sum as provided in Article 64.2.1(c).

64.2.1(a) For Work completed prior to the notice of termination, the Contractor shall be paid a pro rata portion of the lump sum bid amount, plus approved change orders, based upon the percent completion of the Work, as determined by the

**Commissioner.** For the purpose of determining the pro rata portion of the lump sum bid amount to which the **Contractor** is entitled, the bid breakdown submitted in accordance with Article 41 shall be considered, but shall not be dispositive. The **Commissioner's** determination hereunder shall be final, binding, and conclusive.

64.2.1(b) For non-cancelable material and equipment that is not capable of use except in the performance of this **Contract** and has been specifically fabricated for the sole purpose of this **Contract**, but not yet incorporated in the **Work**, the **Contractor** shall be paid the lesser of the following, less salvage value:

64.2.1(b)(i) The Direct Cost, as defined in Article 64.2.4; or

64.2.1(b)(ii) The fair and reasonable value, if less than Direct Cost, of such material and equipment, plus necessary and reasonable delivery costs.

64.2.1(b)(iii) In addition, the **Contractor** shall be paid five (5%) percent of the amount described in Article 64.2.1(b)(i) or Article 64.2.1(b)(ii), whichever applies.

64.2.1(c) Except as otherwise provided in Article 64.2.1(d), on all lump sum **Contracts**, the **Contractor** shall be paid the percentage indicated below applied to the difference between the total lump sum bid amount and the total of all payments made prior to the notice of termination plus all payments allowed pursuant to Articles 64.2.1(a) and 64.2.1(b):

64.2.1(c)(i) Five (5%) percent of the first five million (\$5,000,000) dollars; and

64.2.1(c)(ii) Three (3%) percent of any amount between five million (\$5,000,000) dollars and fifteen million (\$15,000,000) dollars; plus

64.2.1(c)(iii) One (1%) percent of any amount over fifteen million (\$15,000,000) dollars.

64.2.1(d) In the event the **City** terminates a lump sum **Contract** pursuant to this Article 64 within ninety (90) **Days** after registration of the **Contract** with the **Comptroller**, the **Contractor** shall be paid one (1%) percent of the difference between the lump sum bid amount and the total of all payments made pursuant to this Article 64.2.

64.2.2 Unit Price Contracts or Items: On all unit price **Contracts**, or on unit price items in a **Contract**, the **City** will pay the **Contractor** the sum of the amounts described in Articles 64.2.2(a) and 64.2.2(b), less all payments previously made pursuant to this **Contract**:

64.2.2(a) For all completed units, the unit price stated in the **Contract**, and

64.2.2(b) For units that have been ordered but are only partially completed, the **Contractor** will be paid:

64.2.2(b)(i) A pro rata portion of the unit price stated in the **Contract** based upon the percent completion of the unit and

64.2.2(b)(ii) For non-cancelable material and equipment, payment will be made pursuant to Article 64.2.1(b).

64.2.3 Time and Materials Contracts or Items Based on Time and Material Records: On all **Contracts** or items in a **Contract** where payment for the **Work** is based on time and material records, the **Contractor** shall be paid in accordance with Article 26, less all payments previously made pursuant to this **Contract**.

64.2.4 Direct Costs: Direct Costs as used in this Article 64.2 shall mean:

64.2.4(a) The actual purchase price of material and equipment, plus necessary and reasonable delivery costs,

64.2.4(b) The actual cost of labor involved in construction and installation at the **Site**, and

64.2.4(c) The actual cost of necessary bonds and insurance purchased pursuant to requirements of this **Contract** less any amounts that have been or should be refunded by the **Contractor's** sureties or insurance carriers.

64.2.4(d) Direct Costs shall not include overhead.

64.3 In no event shall any payments under this Article 64 exceed the **Contract** price for such items.

64.4 All payments pursuant to Article 64 shall be in the nature of liquidated damages and shall be accepted by the **Contractor** in full satisfaction of all claims against the **City**.

64.5 The **City** may deduct or set off against any sums due and payable pursuant to this Article 64, any deductions authorized by this **Contract** or by **Law** (including but not limited to liquidated damages) and any claims it may have against the **Contractor**. The **City's** exercise of the right to terminate the **Contract** pursuant to this Article 64 shall not impair or otherwise effect the **City's** right to assert any claims it may have against the **Contractor** in a plenary action.

64.6 Where the **Work** covered by the **Contract** has been substantially completed, as determined in writing by the **Commissioner**, termination of the **Work** shall be handled as an omission of **Work** pursuant to Articles 29 and 33, in which case a change order will be issued to reflect an appropriate reduction in the **Contract** sum, or if the amount is determined after final payment, such amount shall be paid by the **Contractor**.

#### **ARTICLE 65. CHOICE OF LAW, CONSENT TO JURISDICTION AND VENUE**

65.1 This **Contract** shall be deemed to be executed in the **City** regardless of the domicile of the **Contractor**, and shall be governed by and construed in accordance with the **Laws** of the State of New York and the **Laws** of the United States, where applicable.

65.2 The parties agree that any and all claims asserted against the **City** arising under this **Contract** or related thereto shall be heard and determined in the courts of the State of New York ("New York State Courts") located in the **City** and County of New York. To effect this **Contract** and intent, the **Contractor** agrees:



65.2.1 If the **City** initiates any action against the **Contractor** in Federal court or in a New York State Court, service of process may be made on the **Contractor** either in person, wherever such **Contractor** may be found, or by registered mail addressed to the **Contractor** at its address as set forth in this **Contract**, or to such other address as the **Contractor** may provide to the **City** in writing; and

65.2.2 With respect to any action between the **City** and the **Contractor** in a New York State Court, the **Contractor** hereby expressly waives and relinquishes any rights it might otherwise have:

65.2.2(a) To move to dismiss on grounds of forum non conveniens;

65.2.2(b) To remove to Federal Court; and

65.2.2(c) To move for a change of venue to a New York State Court outside New York County.

65.2.3 With respect to any action brought by the **City** against the **Contractor** in a Federal Court located in the **City**, the **Contractor** expressly waives and relinquishes any right it might otherwise have to move to transfer the action to a Federal Court outside the **City**.

65.2.4 If the **Contractor** commences any action against the **City** in a court located other than in the **City** and County of New York, upon request of the **City**, the **Contractor** shall either consent to a transfer of the action to a New York State Court of competent jurisdiction located in the **City** and County of New York or, if the Court where the action is initially brought will not or cannot transfer the action, the **Contractor** shall consent to dismiss such action without prejudice and may thereafter reinstate the action in a New York State Court of competent jurisdiction in New York County.

65.3 If any provision(s) of this Article 65 is held unenforceable for any reason, each and all other provision(s) shall nevertheless remain in full force and effect.

#### **ARTICLE 66. PARTICIPATION IN AN INTERNATIONAL BOYCOTT**

66.1 The **Contractor** agrees that neither the **Contractor** nor any substantially owned affiliated company is participating or shall participate in an international boycott in violation of the provisions of the Federal Export Administration Act of 1979, as amended, or the regulations of the United States Department of Commerce (Commerce Department) promulgated thereunder.

66.2 Upon the final determination by the Commerce Department or any other agency of the United States as to, or conviction of the **Contractor** or a substantially-owned affiliated company thereof for participation in an international boycott in violation of the provisions of the Export Administration Act of 1979, as amended, or the regulations promulgated thereunder, the **Comptroller** may, at his/her option, render forfeit and void this **Contract**.

66.3 The **Contractor** shall comply in all respects, with the provisions of Section 6-114 of the Administrative Code and the rules and regulations issued by the **Comptroller** thereunder.

## ARTICLE 67. LOCALLY BASED ENTERPRISE PROGRAM

67.1 This **Contract** is subject to the requirements of Section 6-108.1 of the Administrative Code and regulations promulgated thereunder. No construction contract shall be awarded unless and until these requirements have been complied with in their entirety; however, compliance with this Article 67 is not required if the Agency sets Subcontractor Participation Goals for Minority- and Women-Owned Business Enterprises (M/WBEs).

67.2 Unless specifically waived by the **Commissioner** with the approval of the Division of Economic and Financial Opportunity of the **City** Department of Business Services, if any portion of the **Contract** is subcontracted, not less than ten (10%) percent of the total dollar amount of the **Contract** shall be awarded to locally based enterprises (LBEs); except that where less than ten (10%) percent of the total dollar amount of the **Contract** is subcontracted, such lesser percentage shall be so awarded.

67.3 The **Contractor** shall not require performance and payment bonds from LBE **Subcontractors**.

67.4 If the **Contractor** has indicated prior to award that no **Work** will be subcontracted, no **Work** shall be subcontracted without the prior approval of the **Commissioner**, which shall be granted only if the **Contractor** makes a good faith effort beginning at least six (6) weeks before the **Work** is to be performed to obtain LBE **Subcontractors** to perform the **Work**.

67.5 If the **Contractor** has not identified sufficient LBE **Subcontractors** prior to award, it shall sign a letter of compliance stating that it complies with Section 6-108.1 of the Administrative Code, recognizes that achieving the LBE requirement is a condition of its **Contract**, and shall submit documentation demonstrating its good faith efforts to obtain LBEs. After award, the **Contractor** shall begin to solicit LBE's to perform subcontracted **Work** at least six (6) weeks before the date such **Work** is to be performed and shall demonstrate that a good faith effort has been made to obtain LBEs on each subcontract until it meets the required percentage.

67.6 Failure of the **Contractor** to comply with the requirements of Section 6-108.1 of the Administrative Code and the regulations promulgated thereunder shall constitute a material breach of this **Contract**. Remedy for such breach may include the imposition of any or all of the following sanctions:

67.6.1 Reducing the **Contractor's** compensation by an amount equal to the dollar value of the percentage of the LBE subcontracting requirement not complied with;

67.6.2 Declaring the **Contractor** in default;

67.6.3 If the **Contractor** is an LBE, de-certifying and declaring the **Contractor** ineligible to participate in the LBE program for a period of up to three (3) years.

## ARTICLE 68. ANTITRUST

68.1 The **Contractor** hereby assigns, sells, and transfers to the **City** all right, title, and interest in and to any claims and causes of action arising under the antitrust **Laws** of New York State or of the United States relating to the particular goods or services purchased or procured by the **City** under this **Contract**.

## ARTICLE 69. MacBRIDE PRINCIPLES PROVISIONS

### 69.1 Notice To All Prospective **Contractors**:

69.1.1 Local Law No. 34 of 1991 became effective on September 10, 1991 and added Section 6-115.1 of the Administrative Code. The local **Law** provides for certain restrictions on **City Contracts** to express the opposition of the people of the **City** to employment discrimination practices in Northern Ireland to promote freedom of work-place opportunity.

69.1.2 Pursuant to Section 6-115.1, prospective **Contractors** for **Contracts** to provide goods or services involving an expenditure of an amount greater than ten thousand (\$10,000.) dollars, or for construction involving an amount greater than fifteen thousand (\$15,000.) dollars, are asked to sign a rider in which they covenant and represent, as a material condition of their **Contract**, that any business operations in Northern Ireland conducted by the **Contractor** and any individual or legal entity in which the **Contractor** holds a ten (10%) percent or greater ownership interest in the **Contractor** will be conducted in accordance with the MacBride Principles of nondiscrimination in employment.

69.1.3 Prospective **Contractors** are not required to agree to these conditions. However, in the case of **Contracts** let by competitive sealed bidding, whenever the lowest responsible bidder has not agreed to stipulate to the conditions set forth in this notice and another bidder who has agreed to stipulate to such conditions has submitted a bid within five (5%) percent of the lowest responsible bid for a **Contract** to supply goods, services or construction of comparable quality, the **Agency** shall refer such bids to the Mayor, the Speaker or other officials, as appropriate, who may determine, in accordance with applicable **Law**, that it is in the best interest of the **City** that the **Contract** be awarded to other than the lowest responsible pursuant to Section 313(b)(2) of the **City Charter**.

69.1.4 In the case of **Contracts** let by other than competitive sealed bidding, if a prospective **Contractor** does not agree to these conditions, no **Agency**, elected official or the **City Council** shall award the **Contract** to that bidder unless the **Agency** seeking to use the goods, services or construction certifies in writing that the **Contract** is necessary for the **Agency** to perform its functions and there is no other responsible **Contractor** who will supply goods, services or construction of comparable quality at a comparable price.

69.2 In accordance with Section 6-115.1 of the Administrative Code, the **Contractor** stipulates that such **Contractor** and any individual or legal entity in which the **Contractor** holds a ten (10%) percent or greater ownership interest in the **Contractor** either:

69.2.1 Have no business operations in Northern Ireland, or

69.2.2 Shall take lawful steps in good faith to conduct any business operations they have in Northern Ireland in accordance with the MacBride Principles, and shall permit independent monitoring of their compliance with such principles.

69.3 For purposes of this Article, the following terms shall have the following meanings:

69.3.1 "MacBride Principles" shall mean those principles relating to nondiscrimination in employment and freedom of work-place opportunity which require employers doing business in Northern Ireland to:

69.3.1(a) increase the representation of individuals from under-represented religious groups in the workforce, including managerial, supervisory, administrative, clerical and technical jobs;

69.3.1(b) take steps to promote adequate security for the protection of employees from under-represented religious groups both at the work-place and while traveling to and from **Work**;

69.3.1(c) ban provocative religious or political emblems from the workplace;

69.3.1(d) publicly advertise all job openings and make special recruitment efforts to attract applicants from under-represented religious groups;

69.3.1(e) establish layoff, recall, and termination procedures which do not in practice favor a particular religious group;

69.3.1(f) abolish all job reservations, apprenticeship restrictions and different employment criteria which discriminate on the basis of religion;

69.3.1(g) develop training programs that will prepare substantial numbers of current employees from under-represented religious groups for skilled jobs, including the expansion of existing programs and the creation of new programs to train, upgrade, and improve the skills of workers from under-represented religious groups;

69.3.1(h) establish procedures to assess, identify, and actively recruit employees from under-represented religious groups with potential for further advancement; and

69.3.1(i) appoint a senior management staff member to oversee affirmative action efforts and develop a timetable to ensure their full implementation.

69.4 The **Contractor** agrees that the covenants and representations in Article 69.2 are material conditions to this **Contract**. In the event the **Agency** receives information that the **Contractor** who made the stipulation required by this Article 69 is in violation thereof, the **Agency** shall review such information and give the **Contractor** an opportunity to respond. If the **Agency** finds that a violation has occurred, the **Agency** shall have the right to declare the **Contractor** in default and/or terminate this **Contract** for cause and procure supplies, services or **Work** from another source in the manner the **Agency** deems proper. In the event of such termination, the **Contractor** shall pay to the **Agency**, or the **Agency** in its sole discretion may withhold from any amounts otherwise payable to the **Contractor**, the difference between the **Contract** price for the uncompleted portion of this **Contract** and the cost to the **Agency** of completing performance of this **Contract** either itself or by engaging another **Contractor** or **Contractors**. In the case of a requirement **Contract**, the **Contractor** shall be liable for such difference in price for the entire amount of supplies required by the **Agency** for the uncompleted term of **Contractor's Contract**. In the case of a construction **Contract**, the **Agency** shall also have the right to hold the **Contractor** in partial or total default in accordance with the default provisions of this **Contract**, and/or may seek debarment or suspension of the **Contractor**. The rights and remedies of the **Agency** hereunder shall be in addition to, and not in lieu of, any rights and remedies the **Agency** has pursuant to this **Contract** or by operation of **Law**.

## **ARTICLE 70. ELECTRONIC FILING/NYC DEVELOPMENT HUB**

70.1 The **Contractor** shall electronically file all alteration type-2 and alteration type-3 applications via the New York City Development Hub Web site, except applications for the following types of minor alterations: enlargements, curb cuts, legalizations, fire alarms, builders pavement plans, and jobs filed on Landmark Preservation Commission calendared properties. All such filings must be professionally certified. Information about electronic filing via the New York City Development Hub is available on the City Department of Buildings Web site at [www.nyc.gov/buildings](http://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 as shown in Schedule A.

## **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 shown in Schedule A, 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**.

## **ARTICLE 76. ELECTRONIC FUNDS TRANSFER**

76.1 In accordance with Section 6-107.1 of the Administrative Code, the **Contractor** agrees to accept payments under this **Contract** from the City by electronic funds transfer (EFT). An EFT is any

transfer of funds, other than a transaction originated by check, draft or similar paper instrument, which is initiated through an electronic terminal, telephonic instrument or computer or magnetic tape so as to order, instruct or authorize a financial institution to debit or credit an account. Prior to the first payment made under this **Contract**, the **Contractor** shall designate one financial institution or other authorized payment agent and shall complete the attached "EFT Vendor Payment Enrollment Form" in order to provide the Commissioner of the City Department of Finance with information necessary for the **Contractor** to receive electronic funds transfer payments through a designated financial institution or authorized payment agent. The crediting of the amount of a payment to the appropriate account on the books of a financial institution or other authorized payment agent designated by the **Contractor** shall constitute full satisfaction by the City for the amount of the payment under this **Contract**. The account information supplied by the **Contractor** to facilitate the electronic funds transfer shall remain confidential to the fullest extent provided by Law.

76.2 The **Commissioner** may waive the application of the requirements of this Article 76 to payments on contracts entered into pursuant to Section 315 of the City Charter. In addition, the Commissioner of the Department of Finance and the Comptroller may jointly issue standards pursuant to which the **Agency** may waive the requirements of this Article 76 for payments 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. EXAMINATION AND VIEWING OF SITE, CONSIDERATION OF OTHER SOURCES OF INFORMATION AND CHANGED SITE CONDITIONS**

78.1 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 and hazards on, about or above the **Site** relating to or affecting in any way the performance of the **Work** to be done under the **Contract** that were or should have been known by a reasonably prudent bidder. To arrange a date for visiting the **Site**, bidders are to contact the **Agency** contact person specified in the bid documents.

78.2 Should the **Contractor** encounter during the progress of the **Work** site conditions or environmental hazards at the **Site** materially differing from any shown on the **Contract Drawings** or indicated in the **Specifications** or such conditions or environmental hazards as could not reasonably have been anticipated by the **Contractor**, which conditions or hazards 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 or hazards before they are disturbed. The **Commissioner** shall thereupon promptly investigate the conditions or hazards. If the **Commissioner** finds that they do so materially differ, and that they could not have been reasonably anticipated by the **Contractor**, the **Contract** may be modified with the **Commissioner's** written approval.

**ARTICLE 79. PARTICIPATION BY MINORITY-OWNED AND WOMEN-OWNED  
BUSINESS ENTERPRISES IN CITY PROCUREMENT**

**NOTICE TO ALL PROSPECTIVE CONTRACTORS**

**ARTICLE I. M/WBE PROGRAM**

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

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

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

**PART A**

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

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

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

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

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

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

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

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



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

**C. THE BIDDER/PROPOSER MUST COMPLETE THE SCHEDULE B INCLUDED HEREIN (SCHEDULE B, PART II). A SCHEDULE B SUBMITTED BY THE BIDDER/PROPOSER WHICH DOES NOT INCLUDE THE VENDOR CERTIFICATION AND REQUIRED AFFIRMATIONS (SEE SECTION V OF PART II) WILL BE DEEMED TO BE NON-RESPONSIVE, UNLESS A FULL WAIVER OF THE PARTICIPATION GOALS IS GRANTED (SCHEDULE B, PART III). IN THE EVENT THAT THE CITY DETERMINES THAT THE BIDDER/PROPOSER HAS SUBMITTED A SCHEDULE B WHERE THE VENDOR CERTIFICATION AND REQUIRED AFFIRMATIONS ARE COMPLETED BUT OTHER ASPECTS OF THE SCHEDULE B ARE NOT COMPLETE, OR CONTAIN A COPY OR COMPUTATION ERROR THAT IS AT ODDS WITH THE VENDOR CERTIFICATION AND AFFIRMATIONS, THE BIDDER/PROPOSER WILL BE NOTIFIED BY THE AGENCY AND WILL BE GIVEN FOUR (4) CALENDAR DAYS FROM RECEIPT OF NOTIFICATION TO CURE THE SPECIFIED DEFICIENCIES AND RETURN A COMPLETED SCHEDULE B TO THE AGENCY. FAILURE TO DO SO WILL RESULT IN A DETERMINATION THAT THE BID/PROPOSAL IS NON-RESPONSIVE. RECEIPT OF NOTIFICATION IS DEFINED AS THE DATE NOTICE IS E-MAILED OR FAXED (IF THE BIDDER/PROPOSER HAS PROVIDED AN E-MAIL ADDRESS OR FAX NUMBER), OR NO LATER THAN FIVE (5) CALENDAR DAYS FROM THE DATE OF MAILING OR UPON DELIVERY, IF DELIVERED.**

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

6. MBE and WBE firms must be certified by DSBS in order for the Contractor to credit such firms' participation toward the attainment of the **Participation Goals**. Such certification must occur prior to the

firms' commencement of work. A list of MBE and WBE firms may be obtained from the DSBS website at [www.nyc.gov/buycertified](http://www.nyc.gov/buycertified), by emailing DSBS at [buyer@sbs.nyc.gov](mailto: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](http://www.nyc.gov/getcertified), emailing [MWBE@sbs.nyc.gov](mailto: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](mailto:poped@ddc.nyc.gov) or via facsimile at (718) 391-1886. Bidders, proposers, or contractors, as applicable, who have submitted requests will receive an Agency response by no later than two (2) calendar days prior to the due date for bids, proposals, or Task Orders; provided, however, that if that date would fall on a weekend or holiday, an Agency response will be provided by close-of-business on the business day before such weekend or holiday date.

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

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

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

- (i) The Contractor advertised opportunities to participate in the Contract, where appropriate, in general circulation media, trade and professional association publications and small business media, and publications of minority and women's business organizations;
- (ii) The Contractor provided notice of specific opportunities to participate in the Contract, in a timely manner, to minority and women's business organizations;
- (iii) The Contractor sent written notices, by certified mail or facsimile, in a timely manner, to advise MBEs or WBEs that their interest in the Contract was solicited;
- (iv) The Contractor made efforts to identify portions of the work that could be substituted for portions originally designated for participation by MBEs and/or WBEs in the **M/WBE Utilization Plan**, and for which the Contractor claims an inability to retain MBEs or WBEs;
- (v) The Contractor held meetings with MBEs and/or WBEs prior to the date their bids or proposals were due, for the purpose of explaining in detail the scope and requirements of the work for which their bids or proposals were solicited;
- (vi) The Contractor made efforts to negotiate with MBEs and/or WBEs as relevant to perform specific subcontracts, or act as suppliers or service providers;
- (vii) Timely written requests for assistance made by the Contractor to Agency's **M/WBE liaison officer** and to **DSBS**;
- (viii) Description of how recommendations made by **DSBS** and Agency were acted upon and an explanation of why action upon such recommendations did not lead to the desired level of participation of MBEs and/or WBEs.

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

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

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

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

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

#### **PART B: MISCELLANEOUS**

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

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

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

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

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

#### **ARTICLE II. ENFORCEMENT**

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

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

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

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

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

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

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

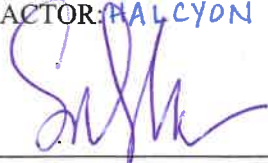
7. The Contractor's record in implementing its M/WBE Utilization Plan shall be a factor in the evaluation of its performance. Whenever Agency determines that a Contractor's compliance with an M/WBE Utilization Plan has been unsatisfactory, Agency shall, after consultation with the City Chief Procurement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

IN WITNESS WHEREOF, the <sup>Deputy</sup> Commissioner, on behalf of the City of New York, and the Contractor, have executed this agreement in quadruplicate, two parts of which are to remain with the Commissioner, another to be filed with the Comptroller of the City, and the fourth to be delivered to the Contractor.

THE CITY OF NEW YORK

By:   
Deputy Commissioner  
OFFICE OF THE DEPUTY COMMISSIONER  
100 NASSAU ST., 10TH FL.  
NEW YORK, NY 10038  
TEL: 212-312-1234

CONTRACTOR: HALCYON CONSTRUCTION CORP.

By:   
(Member of Firm or Officer of Corporation)

Title: VICE PRESIDENT

(Where Contractor is a Corporation, add):  
Attest:

\_\_\_\_\_  
Secretary

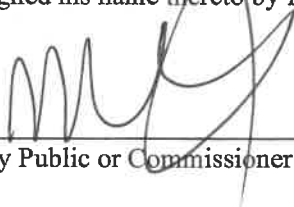
(Seal)

ACKNOWLEDGEMENT OF PRINCIPAL, IF A CORPORATION

State of New York County of Queens ss:

On this 15TH day of JUNE, 2018, before me personally came SILVIO LEOPOLDO to me known who, being by me duly sworn did depose and say that he resides at ORANZEBURG, NY that he is the VICE PRESIDENT of the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that one of the seals affixed to said instrument is such seal; that it was so affixed by order of the directors of said corporation, and that he signed his name thereto by like order.

**MARIA JOHNSTON**  
Notary Public, State of New York  
No. 01JO6351081  
Qualified in Queens County  
Commission Expires Nov. 28, 2020



\_\_\_\_\_  
Notary Public or Commissioner of Deeds

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



DEPUTY  
ACKNOWLEDGEMENT BY COMMISSIONER

State of New York County of Queens ss:

On this 15<sup>th</sup> day of June, 2018, before me personally came Eric Macfarlane to me known, and known to be the Deputy Commissioner of the Department of Design and Construction of The City of New York, the person described as such in and who as such executed the foregoing instrument and acknowledged to me that he executed the same as Deputy Commissioner for the purposes therein mentioned.

  
\_\_\_\_\_  
Notary Public or Commissioner of Deeds

**MARIA JOHNSTON**  
Notary Public, State of New York  
No. 01JO6351081  
Qualified in Queens County  
Commission Expires Nov. 28, 2020

AUTHORITY

MAYOR'S CERTIFICATE NO. CBX  
BUDGET DIRECTOR'S CERTIFICATE NO.

DATED  
DATED

APPROPRIATION  
COMMISSIONER'S CERTIFICATE

In conformity with the provisions of Section 6-101 of the Administrative Code of the City of New York, it is hereby certified that the estimated cost of the work, materials and supplies required by the within Contract, amounting to

Forty-one million, seven hundred  
forty-five thousand dollars.

Dollars (\$ 41,745,000.00)

NOTARIAL SEAL  
NOTARY PUBLIC  
STATE OF NEW YORK  
JAMES J. ...  
...  
...

is chargeable to the fund of the Department of Design and Construction entitled Code

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Department of Design and Construction

I hereby certify that the specifications contained herein comply with the terms and conditions of the BUDGET.

  
Deputy Commissioner

COMPTROLLER'S CERTIFICATE

The City of New York \_\_\_\_\_

Pursuant to the provisions of Section 6-101 of the Administrative Code of the City of New York, I hereby certify that there remains unapplied and unexpended a balance of the above mentioned fund applicable to this Contract sufficient to pay the estimated expense of executing the same viz:

\$ \_\_\_\_\_

\_\_\_\_\_  
Comptroller

MAYOR'S CERTIFICATE OR  
CERTIFICATE OF THE DIRECTOR  
OF THE BUDGET

**Performance Bond #1 (Pages 100 to 103): Use if the total contract price is \$5 Million Or Less. Performance Bond #1 has been approved by the U.S. Small Business Administration (“SBA”) for participation in its Bond Guarantee Program.**

PERFORMANCE BOND #1 (Page 1)

**PERFORMANCE BOND #1**

**KNOW ALL PERSONS BY THESE PRESENTS:**

That we, \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

hereinafter referred to as the “Principal,”  
and, \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

hereinafter referred to as the “Surety” (“Sureties”) are held and firmly bound to THE CITY OF NEW YORK, hereinafter referred to as the “City” or to its successors and assigns in the penal sum of \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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

**WHEREAS**, the Principal is about to enter, or has entered, into a Contract in writing with the City for \_\_\_\_\_  
\_\_\_\_\_

a copy of which Contract is annexed to and hereby made a part of this bond as though herein set forth in full;

**NOW, THEREFORE**, the conditions of this obligation are such that if the Principal, his or its representatives or assigns, shall well and faithfully perform the said Contract and all modifications, amendments, additions and alterations thereto that may hereafter be made, according to its terms and its true intent and meaning, including repair and or replacement of defective work and guarantees of maintenance for the periods stated in the Contract, and shall fully indemnify and save harmless the City from all cost and damage which it may suffer by reason of the Principal’s default of the Contract, and shall fully reimburse and repay the City for all outlay and expense which the City may incur in making

**Performance Bond #1 (Pages 100 to 103): Use if the total contract price is \$5 Million Or Less. Performance Bond #1 has been approved by the U.S. Small Business Administration ("SBA") for participation in its Bond Guarantee Program.**

PERFORMANCE BOND #1 (Page 2)

good any such default and shall protect the said City of New York against, and pay any and all amounts, damages, cost and judgments which may or shall be recovered against said City or its officers or agents or which the said City of New York may be called upon to pay any person or corporation by reason of any damages arising or growing out of the Principal's default of the Contract, then this obligation shall be null and void, otherwise to remain in full force and effect.

The Surety (Sureties), for value received, hereby stipulates and agrees, upon written notice from the City that the City has determined that the Principal is in default of the Contract, to (1) pay the City the cost to complete the contract as determined by the City in excess of the balance of the Contract held by the City, plus any damages or costs to which the City is entitled, up to the full amount of the above penal sum, (2) fully perform and complete the Work to be performed under the Contract, pursuant to the terms, conditions, and covenants thereof, or (3) tender a completion Contractor that is acceptable to the City. The Surety (Sureties) further agrees, at its option, either to notify the City that it elects to pay the city the cost of completion plus any applicable damages and costs under option (1) above, or to commence and diligently perform the Work specified in the Contract, including physical site work, within twenty-five (25) business days after written notice thereof from the City and, if the Surety elects to fully perform and complete the Work, then to complete all Work within the time set forth in the Contract or such other time as agreed to between the City and Surety in accordance with the Contract. If the Surety elects to tender payment pursuant to (1) above, then the Surety shall tender such amount within fifteen (15) business days notification from the City of the cost of completion. The Surety and the City reserve all rights and defenses each may have against the other; provided, however, that the Surety expressly agrees that its reservation of rights shall not provide a basis for non-performance of its obligation to pay the City the cost of completion, to commence and complete all Work as provided herein, or to tender a completion contractor.

The Surety (Sureties), for value received, for itself and its successors and assigns, hereby stipulates and agrees that the obligation of said Surety (Sureties) and its bond shall be in no way impaired or affected by any extension of time, modification, omission, addition, or change in or to the said Contract or the Work to be performed thereunder, or by any payment thereunder before the time required therein, or by any waiver of any provisions thereof, or any moneys due or to become due thereunder; and said Surety (Sureties) does hereby waive notice of any and all of such extensions, modifications, omissions, additions, changes, payments, and waivers, and hereby expressly stipulates and agrees that any and all things done and omitted to be done by and in relation to subcontractors shall have the same effect as to said Surety (Sureties) as though done or omitted to be done by or in relation to said Principal. Notwithstanding the above, if the City makes payments to the Principal before the time required by the contract that in the aggregate exceed \$100,000 or 10% of the Contract price, whichever is less, and that have not become earned prior to the Principal being found to be in default, then all payments made to the Principal before the time required by the Contract shall be added to the remaining contract value available to be paid for the completion of the Contract as if such sums had not been paid to the Principal, but shall not provide a basis for non-performance of its obligation to pay the City the cost of completion, to commence and to complete all Work as provided herein, or to tender a completion contractor.

**Performance Bond #1 (Pages 100 to 103): Use if the total contract price is \$5 Million Or Less. Performance Bond #1 has been approved by the U.S. Small Business Administration (“SBA”) for participation in its Bond Guarantee Program.**

PERFORMANCE BOND #1 (Page 3)

IN WITNESS WHEREOF, The Principal and the Surety (Sureties) have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereunto affixed and these presents to be signed by their proper officers, this

\_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.  
(Seal)

\_\_\_\_\_  
Principal (L.S.)

By: \_\_\_\_\_  
(Seal) Surety

By: \_\_\_\_\_  
(Seal) Surety

By: \_\_\_\_\_  
(Seal) Surety

By: \_\_\_\_\_  
(Seal) Surety

By: \_\_\_\_\_  
(Seal) Surety

By: \_\_\_\_\_

Bond Premium Rate \_\_\_\_\_

Bond Premium Cost \_\_\_\_\_

If the Contractor (Principal) is a partnership, the bond should be signed by each of the individuals who are partners.

If the Contractor (Principal) is a corporation, the bond should be signed in its correct corporate name by a duly authorized officer, agent, or attorney-in-fact.

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

**Performance Bond #1 (Pages 100 to 103): Use if the total contract price is \$5 Million Or Less. Performance Bond #1 has been approved by the U.S. Small Business Administration ("SBA") for participation in its Bond Guarantee Program.**

PERFORMANCE BOND #1 (Page 4)

**ACKNOWLEDGMENT OF PRINCIPAL IF A CORPORATION**

State of \_\_\_\_\_ County of \_\_\_\_\_ ss:

On this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_ before me personally came \_\_\_\_\_,

to me known, who, being by me duly sworn did depose and say that he/she resides at \_\_\_\_\_

\_\_\_\_\_ ; that he/she is the \_\_\_\_\_ of the corporation described in and which executed the foregoing instrument; and that he/she signed his/her name to the foregoing instrument by order of the directors of said corporation as the duly authorized and binding act thereof.

\_\_\_\_\_  
Notary Public or Commissioner of Deeds.

**ACKNOWLEDGMENT OF PRINCIPAL IF A PARTNERSHIP**

State of \_\_\_\_\_ County of \_\_\_\_\_ ss:

On this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_ before me personally came \_\_\_\_\_,

to me known, who, being by me duly sworn did dispose and say that he/she resides at \_\_\_\_\_

\_\_\_\_\_ ; that he/she is \_\_\_\_\_ partner of \_\_\_\_\_, a limited/general partnership existing under the laws of the State of \_\_\_\_\_, the partnership described in and which executed the foregoing instrument; and that he/she signed his/her name to the foregoing instrument as the duly authorized and binding act of said partnership.

\_\_\_\_\_  
Notary Public or Commissioner of Deeds.

**ACKNOWLEDGMENT OF PRINCIPAL IF AN INDIVIDUAL**

State of \_\_\_\_\_ County of \_\_\_\_\_ ss:

On this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_ before me personally came \_\_\_\_\_,

to me known, who, being by me duly sworn did depose and say that he/she resides at \_\_\_\_\_

\_\_\_\_\_ , and that he/she is the individual whose name is subscribed to the within instrument and acknowledged to me that by his/her signature on the instrument, said individual executed the instrument.

\_\_\_\_\_  
Notary Public or Commissioner of Deeds

Each executed bond should be accompanied by: (a) appropriate acknowledgments of the respective parties; (b) appropriate duly certified copy of Power of Attorney or other certificate of authority where bond is executed by agent, officer or other representative of Principal or Surety; (c) a duly certified extract from By-Laws or resolutions of Surety under which Power of Attorney or other certificate of authority of its agent, officer or representative was issued, and (d) certified copy of latest published financial statement of assets and liabilities of Surety.

\*\*\*\*\*

Affix Acknowledgments and Justification of Sureties.

**Performance Bond #2 (Pages 104 to 107): Use if the total contract price is more than \$5 Million.**

PERFORMANCE BOND #2 (Page 1)

**PERFORMANCE BOND #2**

**KNOW ALL PERSONS BY THESE PRESENTS:**

That we, \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

hereinafter referred to as the "Principal,"

and, \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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

\_\_\_\_\_

\_\_\_\_\_

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

**WHEREAS**, the Principal is about to enter, or has entered, into a Contract in writing with the City for

\_\_\_\_\_

\_\_\_\_\_

a copy of which Contract is annexed to and hereby made a part of this bond as though herein set forth in full;

**NOW, THEREFORE**, the conditions of this obligation are such that if the Principal, his or its representatives or assigns, shall well and faithfully perform the said Contract and all modifications, amendments, additions and alterations thereto that may hereafter be made, according to its terms and its true intent and meaning, including repair and or replacement of defective work and guarantees of maintenance for the periods stated in the Contract, and shall fully indemnify and save harmless the City from all cost and damage which it may suffer by reason of the Principal's default of the Contract, and shall fully reimburse and repay the City for all outlay and expense which the City may incur in making



Bond No. 106825241

**Performance Bond #2 (Pages 104 to 107): Use if the total contract price is more than \$5 Million.**

PERFORMANCE BOND #2 (Page 1)

**PERFORMANCE BOND #2**

**KNOW ALL PERSONS BY THESE PRESENTS:**  
That we, THE HALCYON CONSTRUCTION CORPORATION

65 MARBLE AVENUE, PLEASANTVILLE, NY 10570

hereinafter referred to as the "Principal,"  
and, Travelers Casualty and Surety Company of America

One Tower Square, Hartford, CT 06183

hereinafter referred to as the "Surety" ("Sureties") are held and firmly bound to THE CITY OF NEW YORK, hereinafter referred to as the "City" or to its successors and assigns in the penal sum of Forty One Million Seven Hundred Forty Five Thousand Dollars and 00/100

(\$ 41,745,000.00) Dollars, lawful money of the United States for the payment of which said sum of money well and truly to be made, we, and each of us, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

**WHEREAS**, the Principal is about to enter, or has entered, into a Contract in writing with the City for

FMS ID: QED-1023B - DDC PIN: 8502018WM0009C - REPLACEMENT OF TRUNK AND DISTRIBUTION

WATER MAINS IN CYPRESS AVENUE BETWEEN WILLOUBY AVENUE AND HIMROD STREET/QUEENS

a copy of which Contract is annexed to and hereby made a part of this bond as though herein set forth in full;

**NOW, THEREFORE**, the conditions of this obligation are such that if the Principal, his or its representatives or assigns, shall well and faithfully perform the said Contract and all modifications, amendments, additions and alterations thereto that may hereafter be made, according to its terms and its true intent and meaning, including repair and or replacement of defective work and guarantees of maintenance for the periods stated in the Contract, and shall fully indemnify and save harmless the City from all cost and damage which it may suffer by reason of the Principal's default of the Contract, and shall fully reimburse and repay the City for all outlay and expense which the City may incur in making

**Performance Bond #2 (Pages 104 to 107): Use if the total contract price is more than \$5 Million.**

PERFORMANCE BOND #2 (Page 2)

good any such default and shall protect the said City of New York against, and pay any and all amounts, damages, cost and judgments which may or shall be recovered against said City or its officers or agents or which the said City of New York may be called upon to pay any person or corporation by reason of any damages arising or growing out of the Principal's default of the Contract, then this obligation shall be null and void, otherwise to remain in full force and effect.

The Surety (Sureties), for value received, hereby stipulates and agrees, upon written notice from the City that the City has determined that the Principal is in default of the Contract, to either (1) pay the full amount of the above penal sum in complete discharge and exoneration of this bond and of all the liabilities of the Surety relating to this bond, or (2) fully perform and complete the Work to be performed under the Contract, pursuant to the terms, conditions, and covenants thereof. The Surety (Sureties) further agrees, at its option, either to tender the penal sum or to commence and diligently perform the Work specified in the Contract, including physical site work, within twenty-five (25) business days after written notice thereof from the City and to complete all Work within the time set forth in the Contract or such other time as agreed to between the City and Surety in accordance with the Contract. The Surety and the City reserve all rights and defenses each may have against the other; provided, however, that the Surety expressly agrees that its reservation of rights shall not provide a basis for non-performance of its obligation to commence and to complete all Work as provided herein.

The Surety (Sureties), for value received, for itself and its successors and assigns, hereby stipulates and agrees that the obligation of said Surety (Sureties) and its bond shall be in no way impaired or affected by any extension of time, modification, omission, addition, or change in or to the said Contract or the Work to be performed thereunder, or by any payment thereunder before the time required therein, or by any waiver of any provisions thereof, or by any assignment, subletting or other transfer thereof or of any Work to be performed or any moneys due or to become due thereunder; and said Surety (Sureties) does hereby waive notice of any and all of such extensions, modifications, omissions, additions, changes, payments, waivers, assignments, subcontracts and transfers, and hereby expressly stipulates and agrees that any and all things done and omitted to be done by and in relation to assignees, subcontractors, and other transferees shall have the same effect as to said Surety (Sureties) as though done or omitted to be done by or in relation to said Principal.

**Performance Bond #2 (Pages 104 to 107): Use if the total contract price is more than \$5 Million.**

PERFORMANCE BOND #2 (Page 3)

IN WITNESS WHEREOF, The Principal and the Surety (Sureties) have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereunto affixed and these presents to be signed by their proper officers, this 13th day of June, 2018.

(Seal)

THE HALCYON CONSTRUCTION CORPORATION (L.S.)  
Principal

By:  \_\_\_\_\_

(Seal)



Travelers Casualty and Surety Company of America  
Surety

By:  \_\_\_\_\_  
William D. Haas, Attorney-in-Fact

(Seal)

\_\_\_\_\_  
Surety

By: \_\_\_\_\_

(Seal)

\_\_\_\_\_  
Surety

By: \_\_\_\_\_

(Seal)

\_\_\_\_\_  
Surety

By: \_\_\_\_\_

(Seal)

\_\_\_\_\_  
Surety

By: \_\_\_\_\_

Bond Premium Rate \$11.70 SLIDE

Bond Premium Cost 336,091.00

If the Contractor (Principal) is a partnership, the bond should be signed by each of the individuals who are partners.

If the Contractor (Principal) is a corporation, the bond should be signed in its correct corporate name by a duly authorized officer, agent, or attorney-in-fact.

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

**Performance Bond #2 (Pages 104 to 107): Use if the total contract price is more than \$5 Million.**

PERFORMANCE BOND #2 (Page 4)

**ACKNOWLEDGMENT OF PRINCIPAL IF A CORPORATION**

State of New York County of Westchester ss:

On this 13th day of June, 2018 before me personally came Charles Casanella,

to me known, who, being by me duly sworn did depose and say that he/she resides at Pound Ridge NY

; that he/she is the President of the corporation described in and which executed the foregoing instrument; and that he/she signed his/her name to the foregoing instrument by order of the directors of said corporation as the duly authorized and binding act thereof.

[Signature]  
Notary Public or Commissioner of Deeds

MARIA DIOGUARDI  
Notary Public, State of New York  
No. 01-D16234276  
Qualified in Westchester County  
Commission Expires Jan 18, 2019

**ACKNOWLEDGMENT OF PRINCIPAL IF A PARTNERSHIP**

State of \_\_\_\_\_ County of \_\_\_\_\_ ss:

On this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_ before me personally came \_\_\_\_\_,

to me known, who, being by me duly sworn did depose and say that he/she resides at \_\_\_\_\_

; that he/she is \_\_\_\_\_ partner of \_\_\_\_\_, a limited/general partnership existing under the laws of the State of \_\_\_\_\_, the partnership described in and which executed the foregoing instrument; and that he/she signed his/her name to the foregoing instrument as the duly authorized and binding act of said partnership.

\_\_\_\_\_  
Notary Public or Commissioner of Deeds

**ACKNOWLEDGMENT OF PRINCIPAL IF AN INDIVIDUAL**

State of \_\_\_\_\_ County of \_\_\_\_\_ ss:

On this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_ before me personally came \_\_\_\_\_,

to me known, who, being by me duly sworn did depose and say that he/she resides at \_\_\_\_\_

, and that he/she is the individual whose name is subscribed to the within instrument and acknowledged to me that by his/her signature on the instrument, said individual executed the instrument.

\_\_\_\_\_  
Notary Public or Commissioner of Deeds

Each executed bond should be accompanied by: (a) appropriate acknowledgments of the respective parties; (b) appropriate duly certified copy of Power of Attorney or other certificate of authority where bond is executed by agent, officer or other representative of Principal or Surety; (c) a duly certified extract from By-Laws or resolutions of Surety under which Power of Attorney or other certificate of authority of its agent, officer or representative was issued, and (d) certified copy of latest published financial statement of assets and liabilities of Surety.

\*\*\*\*\*

Affix Acknowledgments and Justification of Sureties.

BOND

BOND

**ACKNOWLEDGMENT BY SURETY COMPANY**  
**(Signed by One Authorized Person)**

STATE OF NEW YORK )  
 ) ss.:  
COUNTY OF )

On this 13TH day of JUNE, 2018, before me personally came

WILLIAM D. HAAS to me known, and known to me to be the  
(Name)

ATTORNEY-IN-FACT of TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA  
(Title) (Name of Corporation)

the Corporation described in and which executed the within instrument, who being by me duly  
sworn did depose and say that he/she resides at RYE, NEW YORK

\_\_\_\_\_ and that he/she is the ATTORNEY-IN-FACT of said Corporation  
(Title)

and knows the Corporate Seal of the said Corporation; that the seal affixed to the within  
instrument is such Corporate Seal and so affixed by order of the Board of Directors of said  
Corporation and that he/she signed his/her name thereto by like order; and that the said  
Corporation has received from the Superintendent of Insurance of the State of New York a  
Certificate of Solvency, and of its sufficiency as Surety or Guarantor, pursuant to Section 327 of  
the Insurance Law of the State of New York as amended, and that such Certificate has not been  
revoked.

  
\_\_\_\_\_  
Notary Public

ALICE MCCARTHY  
NOTARY PUBLIC, State of New York  
No. 01MC5079342  
Qualified in Dutchess County  
Commission Expires June 02, 2019

TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA

HARTFORD, CONNECTICUT 06183

FINANCIAL STATEMENT AS OF DECEMBER 31, 2017

CAPITAL STOCK \$ 6,480,000

ASSETS		LIABILITIES & SURPLUS	
CASH AND INVESTED CASH	\$ 137,626,346	UNEARNED PREMIUMS	\$ 920,416,346
BONDS	3,372,829,396	LOSSES	820,933,807
STOCKS	326,030,613	LOSS ADJUSTMENT EXPENSES	181,114,296
INVESTMENT INCOME DUE AND ACCRUED	39,230,403	COMMISSIONS	42,188,100
OTHER INVESTED ASSETS	2,641,903	TAXES, LICENSES AND FEES	13,242,950
PREMIUM BALANCES	235,706,836	OTHER EXPENSES	42,889,176
NET DEFERRED TAX ASSET	46,322,453	CURRENT FEDERAL AND FOREIGN INCOME TAXES	1,313,124
REINSURANCE RECOVERABLE	23,906,019	REMITTANCES AND ITEMS NOT ALLOCATED	82,545,307
SECURITIES LENDING REINVESTED COLLATERAL ASSETS	20,555,872	AMOUNTS WITHHELD / RETAINED BY COMPANY FOR OTHERS	35,924,036
RECEIVABLES FROM PARENT, SUBSIDIARIES AND AFFILIATES	21,488,218	RETROACTIVE REINSURANCE RESERVE ASSUMED	793,036
ASSUMED REINSURANCE RECEIVABLE AND PAYABLE	626,835	POLICYHOLDER DIVIDENDS	9,857,420
OTHER ASSETS	5,795,705	PROVISION FOR REINSURANCE	5,066,347
		ADVANCE PREMIUM	1,256,756
		ESCHEAT LIABILITY	637,140
		PAYABLE FOR SECURITIES LENDING	20,555,872
		CEDED REINSURANCE NET PREMIUMS PAYABLE	36,704,062
		OTHER ACCRUED EXPENSES AND LIABILITIES	686,486
		TOTAL LIABILITIES	\$ 2,216,124,272
		CAPITAL STOCK	\$ 6,480,000
		PAID IN SURPLUS	433,803,761
		OTHER SURPLUS	1,576,352,561
		TOTAL SURPLUS TO POLICYHOLDERS	\$ 2,016,636,322
TOTAL ASSETS	\$ 4,232,760,599	TOTAL LIABILITIES & SURPLUS	\$ 4,232,760,599

STATE OF CONNECTICUT )  
 COUNTY OF HARTFORD ) SS.  
 CITY OF HARTFORD )

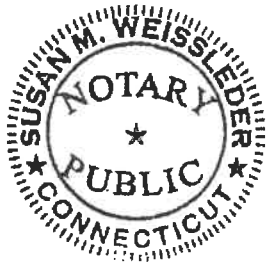
MICHAEL J. DOODY, BEING DULY SWORN, SAYS THAT HE IS SECOND VICE PRESIDENT, OF TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA, AND THAT TO THE BEST OF HIS KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT STATEMENT OF THE FINANCIAL CONDITION OF SAID COMPANY AS OF THE 31ST DAY OF DECEMBER, 2017.

*Michael J. Doody*  
 SECOND VICE PRESIDENT

*Susan M. Weissleder*  
 NOTARY PUBLIC

SUSAN M. WEISSLEDER  
 Notary Public  
 My Commission Expires November 30, 2022

SUBSCRIBED AND SWORN TO BEFORE ME THIS  
 16TH DAY OF MARCH, 2018





POWER OF ATTORNEY

Farmington Casualty Company
Fidelity and Guaranty Insurance Company
Fidelity and Guaranty Insurance Underwriters, Inc.
St. Paul Fire and Marine Insurance Company
St. Paul Guardian Insurance Company

St. Paul Mercury Insurance Company
Travelers Casualty and Surety Company
Travelers Casualty and Surety Company of America
United States Fidelity and Guaranty Company

Surety Bond No. 106825241

Principal: THE HALCYON CONSTRUCTION CORPORATION

OR

Project Description: FMS ID: QED-10239 - DDC PIN: 8502018WM0099C - REPLACEMENT OF TRUNK AND DISTRIBUTION WATER MAINS IN CYPRESS AVENUE BETWEEN WILLOUBY AVENUE AND HIMROD STREET/QUEENS

Obligee: City of New York

KNOW ALL MEN BY THESE PRESENTS: That Farmington Casualty Company, St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, are corporations duly organized under the laws of the State of Connecticut, that Fidelity and Guaranty Insurance Company is a corporation duly organized under the laws of the State of Iowa, and that Fidelity and Guaranty Insurance Underwriters, Inc. is a corporation duly organized under the laws of the State of Wisconsin (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint William D. Haas of the City of White Plains, State of NY, their true and lawful Attorney-in-Fact, to sign, execute, seal and acknowledge the surety bond(s) referenced above.

IN WITNESS WHEREOF, the Companies have caused this instrument to be signed and their corporate seals to be hereto affixed, this 24th day of June, 2016.

Farmington Casualty Company
Fidelity and Guaranty Insurance Company
Fidelity and Guaranty Insurance Underwriters, Inc.
St. Paul Fire and Marine Insurance Company
St. Paul Guardian Insurance Company

St. Paul Mercury Insurance Company
Travelers Casualty and Surety Company
Travelers Casualty and Surety Company of America
United States Fidelity and Guaranty Company



State of Connecticut

City of Hartford ss.

By: [Signature]
Robert L. Raney, Senior Vice President

On this the 24th day of June, 2016, before me personally appeared Robert L. Raney, who acknowledged himself to be the Senior Vice President of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

In Witness Whereof, I hereunto set my hand and official seal.

My Commission expires the 30th day of June, 2021.



[Signature]
Marie C. Tetreault, Notary Public

This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, which resolutions are now in full force and effect, reading as follows:

**RESOLVED**, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President, any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary may appoint Attorneys-in-Fact and Agents to act for and on behalf of the Company and may give such appointee such authority as his or her certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors at any time may remove any such appointee and revoke the power given him or her; and it is

**FURTHER RESOLVED**, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President may delegate all or any part of the foregoing authority to one or more officers or employees of this Company, provided that each such delegation is in writing and a copy thereof is filed in the office of the Secretary; and it is

**FURTHER RESOLVED**, that any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact and Agents pursuant to the power prescribed in his or her certificate or their certificates of authority or by one or more Company officers pursuant to a written delegation of authority; and it is

**FURTHER RESOLVED**, that the signature of each of the following officers: President, any Executive Vice President, any Senior Vice President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any Power of Attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding on the Company in the future with respect to any bond or understanding to which it is attached.

I, Kevin E. Hughes, the undersigned, Assistant Secretary, of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which is in full force and effect and has not been revoked.

**IN TESTIMONY WHEREOF**, I have hereunto set my hand and affixed the seals of said Companies this 13th day of June, 2018.



Kevin E. Hughes, Assistant Secretary



To verify the authenticity of this Power of Attorney, call 1-800-421-3880 or contact us at [www.travelersbond.com](http://www.travelersbond.com). Please refer to the Attorney-In-Fact number, the above-named individuals and the details of the bond to which the power is attached.



Bond No. 106825241

**Payment Bond (Pages 108 to 111): Use for any contract for which a Payment Bond is required.**

PAYMENT BOND (Page 1)

PAYMENT BOND

KNOW ALL PERSONS BY THESE PRESENTS, That we, \_\_\_\_\_

THE HALCYON CONSTRUCTION CORPORATION

65 MARBLE AVENUE, PLEASANTVILLE, NY 10570

hereinafter referred to as the "Principal", and Travelers Casualty and Surety Company of America

One Tower Square , Hartford, CT 06183

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

Forty One Million Seven Hundred Forty Five Thousand Dollars and 00/100

(\$ 41,745,000.00 ) Dollars, lawful money of the United States, for the payment of which said sum of money well and truly to be made, we, and each of us, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal is about to enter, or has entered, into a Contract in writing with the City for

FMS ID: QED-1023B - DDC PIN: 8502018WM0009C - REPLACEMENT OF TRUNK AND

DISTRIBUTION WATER MAINS IN CYPRESS AVENUE BETWEEN WILLOUBY AVENUE AND

HIMROD STREET/QUEENS

a copy of which Contract is annexed to and hereby made a part of this bond as though herein set forth in full;

NOW, THEREFORE, the conditions of this obligation are such that if the Principal, his or its representatives or assigns and other Subcontractors to whom Work under this Contract is sublet and his or their successors and assigns shall promptly pay or cause to be paid all lawful claims for

(a) Wages and compensation for labor performed and services rendered by all persons engaged in the prosecution of the Work under said Contract, and any amendment or extension thereof or addition thereto, whether such persons be agents servants or employees of the Principal or any such Subcontractor, including all persons so engaged who perform the work of laborers or mechanics at or in the vicinity of the site

**Payment Bond (Pages 108 to 111): Use for any contract for which a Payment Bond is required.**

PAYMENT BOND (Page 2)

of the Project regardless of any contractual relationship between the Principal or such Subcontractors, or his or their successors or assigns, on the one hand and such laborers or mechanics on the other, but not including office employees not regularly stationed at the site of the project; and

(b) Materials and supplies (whether incorporated in the permanent structure or not), as well as teams, fuels, oils, implements or machinery furnished, used or consumed by said Principal or any subcontractor at or in the vicinity of the site of the Project in the prosecution of the Work under said Contract and any amendment or extension thereof or addition thereto; then this obligation shall be void, otherwise to remain in full force and effect.

This bond is subject to the following additional conditions, limitations and agreements:

(a) The Principal and Surety (Sureties) agree that this bond shall be for the benefit of any materialmen or laborer having a just claim, as well as the City itself.

(b) All persons who have performed labor, rendered services or furnished materials and supplies, as aforesaid, shall have a direct right of action against the Principal and his, its or their successors and assigns, and the Surety (Sureties) herein, or against either or both or any of them and their successors and assigns. Such persons may sue in their own name, and may prosecute the suit to judgment and execution without the necessity of joining with any other persons as party plaintiff.

(c) The Principal and Surety (Sureties) agree that neither of them will hold the City liable for any judgment for costs of otherwise, obtained by either or both of them against a laborer or materialman in a suit brought by either a laborer or materialman under this bond for moneys allegedly due for performing work or furnishing material.

(d) The Surety (Sureties) or its successors and assigns shall not be liable for any compensation recoverable by an employee or laborer under the Workmen's Compensation Law.

(e) In no event shall the Surety (Sureties), or its successors or assigns, be liable for a greater sum than the penalty of this bond or be subject to any suit, action or proceeding hereon that is instituted by any person, firm, or corporation hereunder later than two years after the complete performance of said Contract and final settlement thereof.

The Principal, for himself and his successors and assigns, and the Surety (Sureties), for itself and its successors and assigns, do hereby expressly waive any objection that might be interposed as to the right of the City to require a bond containing the foregoing provisions, and they do hereby further expressly waive any defense which they or either of them might interpose to an action brought hereon by any person, firm or corporation, including subcontractors, materialmen and third persons, for work, labor, services, supplies or material performed rendered, or furnished as aforesaid upon the ground that there is no law authorizing the City to require the foregoing provisions to be placed in this bond.

And the Surety (Sureties), for value received, for itself and its successors and assigns, hereby stipulates and agrees that the obligation of said Surety (Sureties), and its bonds shall be in no way impaired or affected by any extension of time, modification, omission, addition, or change in or of the said Contract or the work to be performed thereunder, or by any payment thereunder before the time required therein, or by any waiver of any provisions thereof, or by any assignment, subletting or other transfer thereof or of any part thereof, or of any Work to be performed, or any moneys due to become due thereunder and said Surety (Sureties) does hereby waive notice of any and all of such extensions, modifications, omissions, additions, changes, payments, waivers, assignments, subcontracts and transfers, and hereby expressly stipulates and agrees that any and all things done and omitted to be done by and in relation to assignees, Subcontractors, and other transferees shall have the same effect as to said Surety (Sureties) as though done or omitted to be done or in relation to said Principal.

**Payment Bond (Pages 108 to 111): Use for any contract for which a Payment Bond is required.**

PAYMENT BOND (Page 3)

IN WITNESS WHEREOF, the Principal and the Surety (Sureties) have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereunto affixed and these presents to be signed by their proper officers, this 13th day of June, 2018.

(Seal)

THE HALCYON CONSTRUCTION CORPORATION (L.S.)  
Principal

By: 

(Seal)



Travelers Casualty and Surety Company of America  
Surety

By:   
William D. Haas, Attorney-in-Fact

(Seal)

\_\_\_\_\_  
Surety

By: \_\_\_\_\_

(Seal)

\_\_\_\_\_  
Surety

By: \_\_\_\_\_

(Seal)

\_\_\_\_\_  
Surety

By: \_\_\_\_\_

If the Contractor (Principal) is a partnership, the bond should be signed by each of the individuals who are partners.

If the Contractor (Principal) is a corporation, the bond should be signed in its correct corporate name by a duly authorized officer, agent, or attorney-in-fact.

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

**Payment Bond (Pages 108 to 111): Use for any contract for which a Payment Bond is required.**

PAYMENT BOND (Page 4)

**ACKNOWLEDGMENT OF PRINCIPAL, IF A CORPORATION**

State of New York County of Westchester ss:

On this 13<sup>th</sup> day of June, 2018, before me personally came Charles Casanova to me known, who, being by me duly sworn did depose and say that he resides at Young Ridge Rd that he is the President of the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that one of the seals affixed to said instrument is such seal; that it was so affixed by order of the directors of said corporation, and that he signed his name thereto by like order.

  
\_\_\_\_\_  
Notary Public or Commissioner of Deeds

MARIA DIOGUARDI  
Notary Public, State of New York  
No. 01-D16234276  
Qualified in Westchester County  
Commission Expires Jan 18, 2019

**ACKNOWLEDGMENT OF PRINCIPAL, IF A PARTNERSHIP**

State of \_\_\_\_\_ County of \_\_\_\_\_ ss:

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

\_\_\_\_\_  
Notary Public or Commissioner of Deeds

**ACKNOWLEDGMENT OF PRINCIPAL, IF AN INDIVIDUAL**

State of \_\_\_\_\_ County of \_\_\_\_\_ ss:

On this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_, before me personally appeared \_\_\_\_\_ to me known, and known to me to be the person described in and who executed the foregoing instrument; and acknowledged that he executed the same.

\_\_\_\_\_  
Notary Public or Commissioner of Deeds

Each executed bond should be accompanied by: (a) appropriate acknowledgments of the respective parties; (b) appropriate duly certified copy of Power of Attorney or other certificate of authority where bond is executed by agent, officer or other representative of Principal or Surety; (c) a duly certified extract from By-Laws or resolutions of Surety under which Power of Attorney or other certificate of authority of its agent, officer or representative was issued, and (d) certified copy of latest published financial statement of assets and liabilities of Surety.

\*\*\*\*\*

Affix Acknowledgments and Justification of Sureties.

BOND

BOND

**ACKNOWLEDGMENT BY SURETY COMPANY**  
**(Signed by One Authorized Person)**

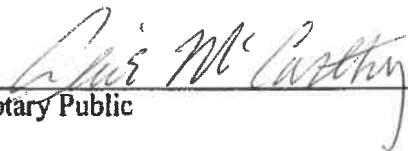
STATE OF NEW YORK        )  
  ) ss.:  
COUNTY OF                    )

On this 13TH day of JUNE, 2018, before me personally came  
WILLIAM D. HAAS to me known, and known to me to be the  
*(Name)*  
ATTORNEY-IN-FACT of TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA  
*(Title)* *(Name of Corporation)*

the Corporation described in and which executed the within instrument, who being by me duly  
sworn did depose and say that he/she resides at RYE, NEW YORK

   and that he/she is the ATTORNEY-IN-FACT of said Corporation  
*(Title)*

and knows the Corporate Seal of the said Corporation; that the seal affixed to the within  
instrument is such Corporate Seal and so affixed by order of the Board of Directors of said  
Corporation and that he/she signed his/her name thereto by like order; and that the said  
Corporation has received from the Superintendent of Insurance of the State of New York a  
Certificate of Solvency, and of its sufficiency as Surety or Guarantor, pursuant to Section 327 of  
the Insurance Law of the State of New York as amended, and that such Certificate has not been  
revoked.

  
\_\_\_\_\_  
Notary Public

ALICE McCARTHY  
NOTARY PUBLIC, State of New York  
No. 01MC5079342  
Qualified in Dutchess County  
Commission Expires June 02, 2019

TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA

HARTFORD, CONNECTICUT 08183

FINANCIAL STATEMENT AS OF DECEMBER 31, 2017

CAPITAL STOCK \$ 6,480,000

ASSETS		LIABILITIES & SURPLUS	
CASH AND INVESTED CASH	\$ 137,626,346	UNEARNED PREMIUMS	\$ 920,416,346
BONDS	3,372,829,396	LOSSES	820,933,807
STOCKS	326,030,613	LOSS ADJUSTMENT EXPENSES	181,114,296
INVESTMENT INCOME DUE AND ACCRUED	39,230,403	COMMISSIONS	42,188,106
OTHER INVESTED ASSETS	2,641,903	TAXES, LICENSES AND FEES	13,242,956
PREMIUM BALANCES	235,706,836	OTHER EXPENSES	42,889,176
NET DEFERRED TAX ASSET	46,322,453	CURRENT FEDERAL AND FOREIGN INCOME TAXES	1,313,126
REINSURANCE RECOVERABLE	23,906,019	REMITTANCES AND ITEMS NOT ALLOCATED	82,545,306
SECURITIES LENDING REINVESTED COLLATERAL ASSETS	20,555,872	AMOUNTS WITHHELD / RETAINED BY COMPANY FOR OTHERS	35,924,036
RECEIVABLES FROM PARENT, SUBSIDIARIES AND AFFILIATES	21,488,218	RETROACTIVE REINSURANCE RESERVE ASSUMED	793,036
ASSUMED REINSURANCE RECEIVABLE AND PAYABLE	626,835	POLICYHOLDER DIVIDENDS	9,857,426
OTHER ASSETS	5,795,705	PROVISION FOR REINSURANCE	5,066,346
		ADVANCE PREMIUM	1,256,756
		ESCHEAT LIABILITY	637,146
		PAYABLE FOR SECURITIES LENDING	20,555,876
		CEDED REINSURANCE NET PREMIUMS PAYABLE	36,704,066
		OTHER ACCRUED EXPENSES AND LIABILITIES	686,486
		<b>TOTAL LIABILITIES</b>	<b>\$ 2,216,124,276</b>
		CAPITAL STOCK	\$ 6,480,006
		PAID IN SURPLUS	433,803,766
		OTHER SURPLUS	1,576,352,566
		<b>TOTAL SURPLUS TO POLICYHOLDERS</b>	<b>\$ 2,016,636,326</b>
<b>TOTAL ASSETS</b>	<b>\$ 4,232,760,599</b>	<b>TOTAL LIABILITIES &amp; SURPLUS</b>	<b>\$ 4,232,760,599</b>

STATE OF CONNECTICUT )  
 COUNTY OF HARTFORD ) SS.  
 CITY OF HARTFORD )

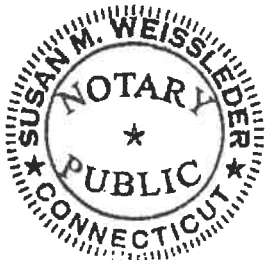
MICHAEL J. DOODY, BEING DULY SWORN, SAYS THAT HE IS SECOND VICE PRESIDENT, OF TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA, AND THAT TO THE BEST OF HIS KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT STATEMENT OF THE FINANCIAL CONDITION OF SAID COMPANY AS OF THE 31ST DAY OF DECEMBER, 2017.

*Michael J. Doody*  
 SECOND VICE PRESIDENT

*Susan M. Weissleder*  
 NOTARY PUBLIC

SUSAN M. WEISSLEDER  
 Notary Public  
 My Commission Expires November 30, 2022

SUBSCRIBED AND SWORN TO BEFORE ME THIS  
 16TH DAY OF MARCH, 2018





POWER OF ATTORNEY

Farmington Casualty Company
Fidelity and Guaranty Insurance Company
Fidelity and Guaranty Insurance Underwriters, Inc.
St. Paul Fire and Marine Insurance Company
St. Paul Guardian Insurance Company

St. Paul Mercury Insurance Company
Travelers Casualty and Surety Company
Travelers Casualty and Surety Company of America
United States Fidelity and Guaranty Company

Surety Bond No. 106825241

Principal: THE HALCYON CONSTRUCTION CORPORATION

OR

Project Description: FMS ID: QED-10238 - DDC PIN: 8502018WM0009C - REPLACEMENT OF TRUNK AND DISTRIBUTION WATER MAINS IN CYPRESS AVENUE BETWEEN WILLOUBY AVENUE AND HIMROD STREET/QUEENS

Obligee: City of New York

KNOW ALL MEN BY THESE PRESENTS: That Farmington Casualty Company, St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, are corporations duly organized under the laws of the State of Connecticut, that Fidelity and Guaranty Insurance Company is a corporation duly organized under the laws of the State of Iowa, and that Fidelity and Guaranty Insurance Underwriters, Inc. is a corporation duly organized under the laws of the State of Wisconsin (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint William D. Haas of the City of White Plains, State of NY, their true and lawful Attorney-in-Fact, to sign, execute, seal and acknowledge the surety bond(s) referenced above.

IN WITNESS WHEREOF, the Companies have caused this instrument to be signed and their corporate seals to be hereto affixed, this 24th day of June, 2016.

Farmington Casualty Company
Fidelity and Guaranty Insurance Company
Fidelity and Guaranty Insurance Underwriters, Inc.
St. Paul Fire and Marine Insurance Company
St. Paul Guardian Insurance Company

St. Paul Mercury Insurance Company
Travelers Casualty and Surety Company
Travelers Casualty and Surety Company of America
United States Fidelity and Guaranty Company



State of Connecticut

City of Hartford ss.

By:

Signature of Robert L. Raney, Senior Vice President

On this the 24th day of June, 2016, before me personally appeared Robert L. Raney, who acknowledged himself to be the Senior Vice President of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

In Witness Whereof, I hereunto set my hand and official seal.

My Commission expires the 30th day of June, 2021.



Signature of Marie C. Tetreault, Notary Public

This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, which resolutions are now in full force and effect, reading as follows:

**RESOLVED**, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President, any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary may appoint Attorneys-in-Fact and Agents to act for and on behalf of the Company and may give such appointee such authority as his or her certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors at any time may remove any such appointee and revoke the power given him or her; and it is

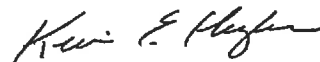
**FURTHER RESOLVED**, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President may delegate all or any part of the foregoing authority to one or more officers or employees of this Company, provided that each such delegation is in writing and a copy thereof is filed in the office of the Secretary; and it is

**FURTHER RESOLVED**, that any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact and Agents pursuant to the power prescribed in his or her certificate or their certificates of authority or by one or more Company officers pursuant to a written delegation of authority; and it is

**FURTHER RESOLVED**, that the signature of each of the following officers: President, any Executive Vice President, any Senior Vice President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any Power of Attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding on the Company in the future with respect to any bond or understanding to which it is attached.

I, Kevin E. Hughes, the undersigned, Assistant Secretary, of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which is in full force and effect and has not been revoked.

**IN TESTIMONY WHEREOF**, I have hereunto set my hand and affixed the seals of said Companies this 13th day of June, 2018.



Kevin E. Hughes, Assistant Secretary



**To verify the authenticity of this Power of Attorney, call 1-800-421-3880 or contact us at [www.travelersbond.com](http://www.travelersbond.com). Please refer to the Attorney-In-Fact number, the above-named individuals and the details of the bond to which the power is attached.**





# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)  
6/12/2018

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**  
Fairfield County Bank Insurance Services, LLC  
401 Main Street  
Ridgefield CT 06877

**CONTACT NAME:** AnnMarie Spencer  
**PHONE (A/C, No, Ext):** 203-438-0404 **FAX (A/C, No):** 203-431-8789  
**E-MAIL ADDRESS:** annmarie.spencer@fcbins.com

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : Star Indemnity & Liability Co.	38318
INSURER B : St. Paul Fire and Marine	24767
INSURER C :	
INSURER D :	
INSURER E :	
INSURER F :	

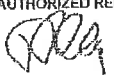
**INSURED** HALCOON-01  
The Halcyon Construction Corp  
65 Marble Avenue  
Pleasantville NY 10570

**COVERAGES** **CERTIFICATE NUMBER:** 656418287 **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.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<b>COMMERCIAL GENERAL LIABILITY</b> <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> contractual liab <input checked="" type="checkbox"/> Completed Ops GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input type="checkbox"/> L.O.C <input checked="" type="checkbox"/> OTHER: XCU included	Y	Y	1000025409171	7/1/2017	7/1/2018	EACH OCCURRENCE \$ 2,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 100,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 2,000,000 GENERAL AGGREGATE \$ 4,000,000 PRODUCTS - COM/CP AGG \$ 4,000,000 \$
A	<b>AUTOMOBILE LIABILITY</b> <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> NON-OWNED AUTOS	Y	Y	SISIPCA08248917	7/1/2017	7/1/2018	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
A	<b>UMBRELLA LIAB</b> <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED <input checked="" type="checkbox"/> RETENTION \$ 10,000	Y	Y	1000022827	7/1/2017	7/1/2018	EACH OCCURRENCE \$ 5,000,000 AGGREGATE \$ 5,000,000 \$
	<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b> ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N	N/A				PER STATUTE OTH-ER E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$
B	Excess Liability	Y		ZUP71M5883816NF	7/1/2017	7/1/2018	Limit occ/Agg 15,000,000

**DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)**  
RE: QED-1023B, E-PIN # 85018B0096001  
Replacement of Trunk and Distribution water mains in Cypress Avenue Between Willouby Avenue and Himrod Street Borough of Queens City of New York, including its officials and employees with coverage at least as broad as ISO Form CG2010 and CG2037 and National Grid, are included as Additional Insureds  
Commercial Umbrella and Excess Liability follows form over underlying Workers Compensation, Automobile and General Liability

<b>CERTIFICATE HOLDER</b>	<b>CANCELLATION</b>
NYC Dept of Design and Construction 30-30 Thomson Avenue Long Island City NY 11101	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.  AUTHORIZED REPRESENTATIVE 



# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)  
6/12/2018

**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).**

<b>PRODUCER</b> Fairfield County Bank Insurance Services, LLC 401 Main Street Ridgefield CT 06877	<b>CONTACT NAME:</b> AnnMarie Spencer <b>PHONE (A/C, No, Ext):</b> 203-438-0404 <b>FAX (A/C, No):</b> 203-431-8789 <b>E-MAIL ADDRESS:</b> annmarie.spencer@fcbins.com												
<b>INSURER(S) AFFORDING COVERAGE</b>													
<b>INSURED</b> HALCCON-01 The Halcyon Construction Corp 65 Marble Avenue Pleasantville NY 10570	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td><b>INSURER A:</b> Star Indemnity &amp; Liability Co.</td> <td style="text-align: right;"><b>NAIC #</b> 38318</td> </tr> <tr> <td><b>INSURER B:</b> St. Paul Fire and Marine</td> <td style="text-align: right;">24767</td> </tr> <tr> <td><b>INSURER C:</b></td> <td></td> </tr> <tr> <td><b>INSURER D:</b></td> <td></td> </tr> <tr> <td><b>INSURER E:</b></td> <td></td> </tr> <tr> <td><b>INSURER F:</b></td> <td></td> </tr> </table>	<b>INSURER A:</b> Star Indemnity & Liability Co.	<b>NAIC #</b> 38318	<b>INSURER B:</b> St. Paul Fire and Marine	24767	<b>INSURER C:</b>		<b>INSURER D:</b>		<b>INSURER E:</b>		<b>INSURER F:</b>	
<b>INSURER A:</b> Star Indemnity & Liability Co.	<b>NAIC #</b> 38318												
<b>INSURER B:</b> St. Paul Fire and Marine	24767												
<b>INSURER C:</b>													
<b>INSURER D:</b>													
<b>INSURER E:</b>													
<b>INSURER F:</b>													

**COVERAGES      CERTIFICATE NUMBER: 800002577      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.**

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> Contractual liab <input checked="" type="checkbox"/> completed ops GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC <input checked="" type="checkbox"/> OTHER: XCU Included	Y	Y	1000025409171	7/1/2017	7/1/2018	EACH OCCURRENCE \$ 2,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 100,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 2,000,000 GENERAL AGGREGATE \$ 4,000,000 PRODUCTS - COM/OP AGG \$ 4,000,000 \$
A	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS	Y		SISIPCA08249917	7/1/2017	7/1/2018	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
A	<input type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> DED <input checked="" type="checkbox"/> RETENTION \$ 10,000	Y		1000022827	7/1/2017	7/1/2018	EACH OCCURRENCE \$ 5,000,000 AGGREGATE \$ 5,000,000 \$
A	<input checked="" type="checkbox"/> WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y	N/A	1000001110	7/1/2017	7/1/2018	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 2,000,000 E.L. DISEASE - EA EMPLOYEE \$ 2,000,000 E.L. DISEASE - POLICY LIMIT \$ 2,000,000
B	Excess Liability	Y		ZUP71M5883816NF	7/1/2017	7/1/2018	Limit Occ/Agg 15,000,000

**DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)**  
 RE: QED-1023B, E-PIN # 85018B0096001  
 Replacement of Trunk and Distribution water mains in Cypress Avenue Between Willouby Avenue and Hlmrod Street Borough of Queens  
 Commercial Umbrella and Excess Liability follows form over underlying Workers Compensation, Automobile and General Liability

<b>CERTIFICATE HOLDER</b>  MTA Risk and Insurance Management Standards, Enforcement and Claims Unit Director Risk Management 2 Broadway 21st Fl New York NY 10004	<b>CANCELLATION</b>  SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.  AUTHORIZED REPRESENTATIVE 
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# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)  
6/12/2018

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 have **ADDITIONAL INSURED** provisions or 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).

<b>PRODUCER</b> Fairfield County Bank Insurance Services, LLC 401 Main Street Ridgefield CT 06877	<b>CONTACT NAME:</b> PHONE (A/C, No, Ext): 203-438-0404      FAX (A/C, No): 203-431-8789 E-MAIL ADDRESS: annmarie.spencer@fcbins.com	
	<b>INSURER(S) AFFORDING COVERAGE</b> INSURER A : Travelers Property Casualty Insurance Company of A	<b>NAIC #</b> 25674
<b>INSURED</b> HALCCON-01 The Halcyon Construction Corp 65 Marble Avenue Pleasantville NY 10570	<b>INSURER B :</b>	
	<b>INSURER C :</b>	
	<b>INSURER D :</b>	
	<b>INSURER E :</b>	
	<b>INSURER F :</b>	

**COVERAGES**      **CERTIFICATE NUMBER:** 1907923712      **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.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	<b>COMMERCIAL GENERAL LIABILITY</b> <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> OCCUR  GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:						EACH OCCURRENCE \$ DAMAGE TO RENTED PREMISES (Ea occurrence) \$ MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$ GENERAL AGGREGATE \$ PRODUCTS - COMP/OP AGG \$ \$
	<b>AUTOMOBILE LIABILITY</b> <input type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY <input type="checkbox"/> AUTOS ONLY						COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
	<input type="checkbox"/> <b>UMBRELLA LIAB</b> <input type="checkbox"/> OCCUR <input type="checkbox"/> <b>EXCESS LIAB</b> <input type="checkbox"/> CLAIMS-MADE DED    RETENTION \$						EACH OCCURRENCE \$ AGGREGATE \$ \$
	<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b> ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	<input type="checkbox"/> Y <input type="checkbox"/> N N/A					<input type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$
A	Property			6601G400244	7/1/2017	7/1/2018	Limit Special Form 40,000 Included

**DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)**  
RE: QED-1023B E-PIN # 85018B0096001  
Replacement of Trunk and Distribution Water mains in Cypress Avenue Between Willouby Avenue and Himrod Street Borough of Queens City of New York is loss payee with respects property

<b>CERTIFICATE HOLDER</b>  NYC Dept. of Design and Construction 30-30 Thomson Avenue Long Island City NY 11101	<b>CANCELLATION</b>  SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

## ADDITIONAL INSURED – DESIGNATED PERSON OR ORGANIZATION

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

### SCHEDULE

<p><b>Name Of Additional Insured Person(s) Or Organization(s):</b></p> <p>City of New York, its officials and employees, National Grid</p>
<p>Information required to complete this Schedule, if not shown above, will be shown in the Declarations.</p>

**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", "property damage" or "personal and advertising injury" caused, in whole or in part, by your acts or omissions or the acts or omissions of those acting on your behalf:

1. In the performance of your ongoing operations; or
2. In connection with your premises owned by or rented to you.

However:

1. The insurance afforded to such additional insured only applies to the extent permitted by law; and
2. 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.

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
City of New York, its officials and employees	QED-1023B Cypress Avenue Between Willouby Ave. and Himrod Street Borough of Queens
National Grid	
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:

1. The insurance afforded to such additional insured only applies to the extent permitted by law; and
2. 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.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

**ADDITIONAL INSURED – OWNERS, LESSEES OR CONTRACTORS – SCHEDULED PERSON OR ORGANIZATION**

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

Name Of Additional Insured Person(s) Or Organization(s)	Location(s) Of Covered Operations
City of New York, Its Officials and Employees National Grid	QED-1023B Cypress Avenue Between Willouby Ave. and Himrod Street Borough of Queens
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", "property damage" or "personal and advertising injury" caused, in whole or in part, by:

1. Your acts or omissions; or
2. The acts or omissions of those acting on your behalf;

in the performance of your ongoing operations for the additional insured(s) at the location(s) designated above.

However:

1. The insurance afforded to such additional insured only applies to the extent permitted by law; and
2. 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 additional exclusions apply:

This insurance does not apply to "bodily injury" or "property damage" occurring after:

1. 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; or
2. 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.



CERTIFICATE OF NYS WORKERS' COMPENSATION INSURANCE COVERAGE

1a. Legal Name & Address of Insured (use street address only)
The Halcyon Construction Corp
65 Marble Avenue
Pleasantville NY 10570
1b. Business Telephone Number of Insured
914-741-1112
1c. NYS Unemployment Insurance Employer Registration Number of Insured
1d. Federal Employer Identification Number of Insured or Social Security Number
132995431
2. Name and Address of Entity Requesting Proof of Coverage
NYC Dept of Design and Construction
30-30 Thomson Avenue
Long Island City NY 11101
3a. Name of Insurance Carrier
Star Indemnity & Liability Co.
3b. Policy Number of Entity Listed in Box "1a"
1000001110
3c. Policy effective period
7/1/2017 to 7/1/2018
3d. The Proprietor, Partners or Executive Officers are
[X] included. (Only check box if all partners/officers included)
[ ] all excluded or certain partners/officers excluded.

This certifies that the insurance carrier indicated above in box "3" insures the business referenced above in box "1a" for workers' compensation under the New York State Workers' Compensation Law. (To use this form, New York (NY) must be listed under Item 3A on the INFORMATION PAGE of the workers' compensation insurance policy). The Insurance Carrier or its licensed agent will send this Certificate of Insurance to the entity listed above 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 [X] NO

This certificate is issued as a matter of information only and confers no rights upon the certificate holder. This certificate does not amend, extend or alter the coverage afforded by the policy listed, nor does it confer any rights or responsibilities beyond those contained in the referenced policy.

This certificate may be used as evidence of a Workers' Compensation contract of insurance only while the underlying policy is in effect.

Please Note: Upon cancellation of the workers' compensation 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 Workers' Compensation Coverage or other authorized proof that the business is complying with the mandatory coverage requirements of the New York State Workers' Compensation Law.

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 the coverage as depicted on this form.

Approved by: Mark Connelly
(Print name of authorized representative or licensed agent of insurance carrier)

Approved by: [Signature] 6/12/2018
(Signature) (Date)

Title: President

Telephone Number of authorized representative or licensed agent of insurance carrier: 203-438-0404

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 AND PAID FAMILY LEAVE BENEFITS LAW

**PART 1. To be completed by Disability and Paid Family Leave Benefits Carrier or Licensed Insurance Agent of that Carrier**

<p>1a. Legal Name &amp; Address of Insured (use street address only)</p> <p>THE HALCYON CONSTRUCTION CORP. 65 MARBLE AVENUE</p> <p>PLEASANTVILLE NY 10570</p> <p><i>Work Location of Insured (Only required if coverage is specifically limited to certain locations in New York State, i.e., Wrap-Up Policy)</i></p>	<p>1b. Business Telephone Number of Insured</p> <p>914-741-1112</p> <p>1c. Federal Employer Identification Number of Insured or Social Security Number</p> <p>132995431</p>
<p>2. Name and Address of Entity Requesting Proof of Coverage (Entity Being Listed as the Certificate Holder)</p> <p>NYC DEPARTMENT OF DESIGN AND CONSTRUCTION 30-30 THOMSON AVE LONG ISLAND CITY, NY 11101</p>	<p>3a Name of Insurance Carrier</p> <p>HARTFORD LIFE AND ACCIDENT INSURANCE COMPANY</p> <p>3b Policy Number of Entity Listed in Box "1a"</p> <p>DBL-165369</p> <p>3c Policy effective period</p> <p>10/01/2017 to 09/30/2018</p>

4. Policy provides the following benefits:

- A. Both disability and paid family leave benefits.
- B. Disability benefits only.
- C. Paid family leave benefits only.

5. Policy covers:

- A. All of the employer's employees eligible under the NYS Disability and Paid Family Leave Benefits Law.
- B. Only the following class or classes of employer's employees:

Under penalty of perjury, I certify that I am an authorized representative or licensed agent of the insurance carrier referenced above and that the named insured has NYS Disability and/or Paid Family Leave Benefits insurance coverage as described above.

Date Signed 06/12/2018 *Elizabeth Tello*  
(Signature of insurance carrier's authorized representative or NYS Licensed Insurance Agent of that insurance carrier)

Telephone Number (212) 553-8074 Name and Title: Elizabeth Tello – Assistant Director, Statutory Services

**IMPORTANT:** If Boxes 4A and 5A are 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, 4C or 5B is checked, this certificate is NOT COMPLETE for purposes of Section 220, Subd. 8 of the NYS Disability and Paid Family Leave Benefits Law. It must be mailed for completion to the Workers' Compensation Board, Plans Acceptance Unit, PO Box 5200, Binghamton, NY 13902-5200.

**PART 2. To be completed by the NYS Workers' Compensation Board (Only if Box 4C or 5B 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 and Paid Family Leave Benefits Law with respect to all of his/her employees.

Date Signed \_\_\_\_\_ By \_\_\_\_\_  
(Signature of Authorized NYS Workers' Compensation Board Employee)

Telephone Number \_\_\_\_\_ Name and Title \_\_\_\_\_

*Please Note: Only insurance carriers licensed to write NYS disability and paid family leave 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 "1 a" for disability and/or paid family leave benefits under the New York State Disability and Paid Family Leave 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.

The insurance carrier must notify the above certificate holder and the Workers' Compensation Board within 10 days IF a policy is cancelled due to nonpayment of premiums or within 30 days IF there are reasons other than nonpayment of premiums that cancel the policy or eliminate the insured from coverage indicated on this Certificate. (These notices may be sent by regular mail.) Otherwise, this Certificate is valid for one year after this form is approved by the insurance carrier or its licensed agent, or until the policy expiration date listed in Box 3c, whichever is earlier

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 and/or Paid Family Leave Benefits contract of insurance only while the underlying policy is in effect.

**Please Note: Upon the cancellation of the disability and/or paid family leave 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 and/or Paid Family Leave Benefits Coverage or other authorized proof that the business is complying with the mandatory coverage requirements of the New York State Disability and Paid Family Leave Benefits Law.**

## DISABILITY AND PAID FAMILY LEAVE 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 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 the payment of disability benefits and after January first, two thousand and twenty-one, the payment of family leave 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 and after January first, two thousand eighteen, the payment of family leave benefits for all employees has been secured as provided by this article.

**CITY OF NEW YORK  
CERTIFICATION BY INSURANCE BROKER OR AGENT**

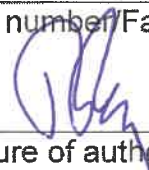
The undersigned insurance broker represents to the City of New York that the attached Certificate of Insurance is accurate in all material respects.

Fairfield County Bank Insurance Services LLC  
[Name of broker or agent (typewritten)]

401 Main Street Ridgefield CT 06877  
[Address of broker or agent (typewritten)]

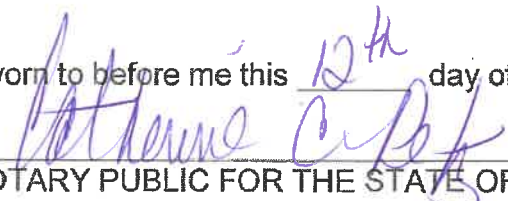
mark.connelly@fcbins.com  
[Email address of broker or agent (typewritten)]

203-894-3188/ 203-431-8789  
[Phone number/Fax number of broker or agent (typewritten)]

  
[Signature of authorized official, broker, or agent]

Mark Connelly President  
[Name and title of authorized official, broker, or agent (typewritten)]

State of ...CT.....)  
  ) ss.:  
County of ...Fairfield.....)

Sworn to before me this 12<sup>th</sup> day of June, 2018  
  
NOTARY PUBLIC FOR THE STATE OF CT





# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)  
6/12/2018

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 have **ADDITIONAL INSURED** provisions or 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).

<b>PRODUCER</b> Fairfield County Bank Insurance Services, LLC 401 Main Street Ridgefield CT 06877	<b>CONTACT NAME:</b> AnnMarie Spencer <b>PHONE (A/C, No, Ext):</b> 203-438-0404 <b>E-MAIL ADDRESS:</b> anmarie.spencer@fcbins.com	<b>FAX (A/C, No):</b> 203-431-8789
	<b>INSURER(S) AFFORDING COVERAGE</b>	
<b>INSURED</b> The Halcyon Construction Corp 65 Marble Avenue Pleasantville NY 10570	<b>INSURER A:</b> Star Indemnity & Liability Co. NAIC # 38318	
	<b>INSURER B:</b> St. Paul Fire and Marine 24767	
	<b>INSURER C:</b>	
	<b>INSURER D:</b>	
	<b>INSURER E:</b>	

**COVERAGES** CERTIFICATE NUMBER: 389562327 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.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> contractual liab <input checked="" type="checkbox"/> Completed Ops GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC <input checked="" type="checkbox"/> OTHER: XCU Included	Y	Y	1000025409171	7/1/2018	7/1/2019	EACH OCCURRENCE \$2,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$100,000 MED EXP (Any one person) \$5,000 PERSONAL & ADV INJURY \$2,000,000 GENERAL AGGREGATE \$4,000,000 PRODUCTS - COMPIOP AGG \$4,000,000 \$
A	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input checked="" type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS ONLY	Y	Y	SISIPCA03249917	7/1/2018	7/1/2019	COMBINED SINGLE LIMIT (Ea accident) \$1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
A	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED <input checked="" type="checkbox"/> RETENTION \$ 10,000	Y	Y	1000022627	7/1/2018	7/1/2019	EACH OCCURRENCE \$5,000,000 AGGREGATE \$5,000,000 \$ PER STATUTE OTH-ER
WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below		Y/N	N/A				E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$
B	Excess Liability	Y		ZUP71M5883817NF	7/1/2018	7/1/2019	Limit occ/Agg 15000000/15000000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 104, Additional Remarks Schedule, may be attached if more space is required)  
RE: QED-1023B, E-PIN # 85018B0096001  
Replacement of Trunk and Distribution water mains in Cypress Avenue Between Willouby Avenue and Himrod Street Borough of Queens City of New York, including its officials and employees with coverage at least as broad as ISO Form CG2010 and CG2037 and National Grid, are included as Additional Insureds  
Commercial Umbrella and Excess Liability follows form over underlying Workers Compensation, Automobile and General Liability

<b>CERTIFICATE HOLDER</b>  NYC Dept of Design and Construction 30-30 Thomson Avenue Long Island City NY 11101	<b>CANCELLATION</b>  SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.  AUTHORIZED REPRESENTATIVE 
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# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

6/12/2018

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 have ADDITIONAL INSURED provisions or 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).

<b>PRODUCER</b> Fairfield County Bank Insurance Services, LLC 401 Main Street Ridgefield CT 06877	<b>CONTACT NAME:</b> AnnMarie Spencer <b>PHONE (A/C, No, Ext):</b> 203-438-0404 <b>E-MAIL ADDRESS:</b> annmarie.spencer@fcbins.com	<b>FAX (A/C, No):</b> 203-431-8789
	<b>INSURER(S) AFFORDING COVERAGE</b>	
<b>INSURED</b> HALCCON-01 The Halcyon Construction Corp 65 Marble Avenue Pleasantville NY 10570	<b>INSURER A:</b> Star Indemnity & Liability Co. <b>NAIC #</b> 38318	
	<b>INSURER B:</b> St. Paul Fire and Marine <b>24767</b>	
	<b>INSURER C:</b>	
	<b>INSURER D:</b>	
	<b>INSURER E:</b>	
<b>INSURER F:</b>		

**COVERAGES**

CERTIFICATE NUMBER: 890211134

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.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> Contractual Liab <input checked="" type="checkbox"/> Completed Ops GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input type="checkbox"/> LOC <input checked="" type="checkbox"/> OTHER: XCU Included	Y	Y	1000025409171	7/1/2018	7/1/2019	EACH OCCURRENCE \$ 2,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 100,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 2,000,000 GENERAL AGGREGATE \$ 4,000,000 PRODUCTS - COMP/OP AGG \$ 4,000,000 \$
A	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS NON-OWNED AUTOS ONLY <input checked="" type="checkbox"/> HIRED AUTOS ONLY	Y		SISIPCA08249917	7/1/2018	7/1/2019	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
A	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> DED <input checked="" type="checkbox"/> RETENTION \$ 10,000	Y		1000022827	7/1/2018	7/1/2019	EACH OCCURRENCE \$ 5,000,000 AGGREGATE \$ 5,000,000 \$
A	<input checked="" type="checkbox"/> WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y	N/A	1000001110	7/1/2018	7/1/2019	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 2,000,000 E.L. DISEASE - EA EMPLOYEE \$ 2,000,000 E.L. DISEASE - POLICY LIMIT \$ 2,000,000
B	Excess Liability	Y		ZUP71M5883816NF	7/1/2018	7/1/2019	Limit Occ/Agg 15,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

RE: QED-1023B, E-PIN # 85018B0096001

Replacement of Trunk and Distribution water mains in Cypress Avenue Between Willouby Avenue and Himrod Street Borough of Queens  
 Commercial Umbrella and Excess Liability follows form over underlying Workers Compensation, Automobile and General Liability

**CERTIFICATE HOLDER****CANCELLATION**

MTA Risk and Insurance Management  
 Standards, Enforcement and Claims Unit  
 Director Risk Management  
 2 Broadway 21st Fl  
 New York NY 10004

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

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# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)  
6/12/2018

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 have ADDITIONAL INSURED provisions or 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).


<b>PRODUCER</b> Fairfield County Bank Insurance Services, LLC 401 Main Street Ridgefield CT 06877	<b>CONTACT NAME:</b> PHONE (A/C, No., Ext): 203-438-0404      FAX (A/C, No.): 203-431-8789 E-MAIL ADDRESS: annmarie.spencer@fcbins.com	
	<b>INSURER(S) AFFORDING COVERAGE</b> INSURER A : Travelers Property Casualty Insurance Company of A	<b>NAIC #</b> 25674
<b>INSURED</b> HALCCON-01 The Halcyon Construction Corp 65 Marble Avenue Pleasantville NY 10570	<b>INSURER B :</b>	
	<b>INSURER C :</b>	
	<b>INSURER D :</b>	
	<b>INSURER E :</b>	
	<b>INSURER F :</b>	

**COVERAGES**      **CERTIFICATE NUMBER: 1218987922**      **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.

INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSD WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
	<b>COMMERCIAL GENERAL LIABILITY</b> <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> OCCUR  GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:					EACH OCCURRENCE \$ DAMAGE TO RENTED PREMISES (Ea occurrence) \$ MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$ GENERAL AGGREGATE \$ PRODUCTS - COMP/OP AGG \$ \$	
	<b>AUTOMOBILE LIABILITY</b> <input type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY					COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$	
	<b>UMBRELLA LIAB</b> <input type="checkbox"/> OCCUR <b>EXCESS LIAB</b> <input type="checkbox"/> CLAIMS-MADE DED    RETENTION \$					EACH OCCURRENCE \$ AGGREGATE \$ \$	
	<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b> ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) <input type="checkbox"/> Y / <input type="checkbox"/> N If yes, describe under DESCRIPTION OF OPERATIONS below					PER STATUTE    OTH-ER E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$	
A	Property		6601G400244	7/1/2018	7/1/2019	Limit Special Form	40,000 Included

**DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)**  
RE: QED-1023B E-PIN # 85018B0096001  
Replacement of Trunk and Distribution Water mains in Cypress Avenue Between Willouby Avenue and Himrod Street Borough of Queens City of New York is loss payee with respects property

<b>CERTIFICATE HOLDER</b>  NYC Dept. of Design and Construction 30-30 Thomson Avenue Long Island City NY 11101	<b>CANCELLATION</b>  SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.  AUTHORIZED REPRESENTATIVE 
--	--

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

## ADDITIONAL INSURED – DESIGNATED PERSON OR ORGANIZATION

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

### SCHEDULE

Name Of Additional Insured Person(s) Or Organization(s):

City of New York, its officials and employees, National Grid

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", "property damage" or "personal and advertising injury" caused, in whole or in part, by your acts or omissions or the acts or omissions of those acting on your behalf:

1. In the performance of your ongoing operations; or
2. In connection with your premises owned by or rented to you.

However:

1. The insurance afforded to such additional insured only applies to the extent permitted by law; and
2. 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.

POLICY NUMBER: 1000025409171

COMMERCIAL GENERAL LIABILITY  
CG 20 37 04 13

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
City of New York, its officials and employees	QED-1023B Cypress Avenue Between Willouby Ave. and Himrod Street Borough of Queens
National Grid	

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:

1. The insurance afforded to such additional insured only applies to the extent permitted by law; and
2. 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.



POLICY NUMBER: 1000025409171

COMMERCIAL GENERAL LIABILITY  
CG 20 10 04 13

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

## ADDITIONAL INSURED – OWNERS, LESSEES OR CONTRACTORS – SCHEDULED PERSON OR ORGANIZATION

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

### SCHEDULE

Name Of Additional Insured Person(s) Or Organization(s)	Location(s) Of Covered Operations
City of New York, Its Officials and Employees National Grid	QED-1023B Cypress Avenue Between Willouby Ave. and Himrod Street Borough of Queens
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", "property damage" or "personal and advertising injury" caused, in whole or in part, by:

1. Your acts or omissions; or
2. The acts or omissions of those acting on your behalf;

in the performance of your ongoing operations for the additional insured(s) at the location(s) designated above.

However:

1. The insurance afforded to such additional insured only applies to the extent permitted by law; and
2. 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 additional exclusions apply:

This insurance does not apply to "bodily injury" or "property damage" occurring after:

1. 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; or
2. 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.



**CERTIFICATE OF INSURANCE COVERAGE**  
under the NYS DISABILITY AND PAID FAMILY LEAVE BENEFITS LAW

**PART 1. To be completed by Disability and Paid Family Leave Benefits Carrier or Licensed Insurance Agent of that Carrier**

<p>1a. Legal Name &amp; Address of Insured (use street address only)</p> <p>THE HALCYON CONSTRUCTION CORP. 65 MARBLE AVENUE</p> <p>PLEASANTVILLE NY 10570</p> <p><i>Work Location of Insured (Only required if coverage is specifically limited to certain locations in New York State, i.e., Wrap-Up Policy)</i></p>	<p>1b. Business Telephone Number of Insured</p> <p>914-741-1112</p> <p>1c. Federal Employer Identification Number of Insured or Social Security Number</p> <p>132995431</p>
<p>2. Name and Address of Entity Requesting Proof of Coverage (Entity Being Listed as the Certificate Holder)</p> <p>NYC DEPARTMENT OF DESIGN AND CONSTRUCTION 30-30 THOMSON AVE LONG ISLAND CITY, NY 11101</p>	<p>3a Name of Insurance Carrier</p> <p>HARTFORD LIFE AND ACCIDENT INSURANCE COMPANY</p> <p>3b Policy Number of Entity Listed in Box "1a"</p> <p>DBL-165369</p> <p>3c Policy effective period</p> <p>10/01/2017 to 09/30/2018</p>

4. Policy provides the following benefits:

- A. Both disability and paid family leave benefits.
- B. Disability benefits only.
- C. Paid family leave benefits only.

5. Policy covers:

- A. All of the employer's employees eligible under the NYS Disability and Paid Family Leave Benefits Law.
- B. Only the following class or classes of employer's employees:

Under penalty of perjury, I certify that I am an authorized representative or licensed agent of the insurance carrier referenced above and that the named insured has NYS Disability and/or Paid Family Leave Benefits insurance coverage as described above.

Date Signed 06/12/2018 *Elizabeth Tello*  
(Signature of insurance carrier's authorized representative or NYS Licensed Insurance Agent of that insurance carrier)

Telephone Number (212) 553-8074 Name and Title: Elizabeth Tello – Assistant Director, Statutory Services

**IMPORTANT: If Boxes 4A and 5A are 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, 4C or 5B is checked, this certificate is NOT COMPLETE for purposes of Section 220, Subd. 8 of the NYS Disability and Paid Family Leave Benefits Law. It must be mailed for completion to the Workers' Compensation Board, Plans Acceptance Unit, PO Box 5200, Binghamton, NY 13902-5200.

**PART 2. To be completed by the NYS Workers' Compensation Board (Only if Box 4C or 5B 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 and Paid Family Leave Benefits Law with respect to all of his/her employees.

Date Signed \_\_\_\_\_ By \_\_\_\_\_  
(Signature of Authorized NYS Workers' Compensation Board Employee)

Telephone Number \_\_\_\_\_ Name and Title \_\_\_\_\_

*Please Note: Only insurance carriers licensed to write NYS disability and paid family leave 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 "1 a" for disability and/or paid family leave benefits under the New York State Disability and Paid Family Leave 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.

The insurance carrier must notify the above certificate holder and the Workers' Compensation Board within 10 days IF a policy is cancelled due to nonpayment of premiums or within 30 days IF there are reasons other than nonpayment of premiums that cancel the policy or eliminate the insured from coverage indicated on this Certificate. (These notices may be sent by regular mail.) Otherwise, this Certificate is valid for one year after this form is approved by the insurance carrier or its licensed agent, or until the policy expiration date listed in Box 3c, whichever is earlier

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 and/or Paid Family Leave Benefits contract of insurance only while the underlying policy is in effect.

**Please Note: Upon the cancellation of the disability and/or paid family leave 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 and/or Paid Family Leave Benefits Coverage or other authorized proof that the business is complying with the mandatory coverage requirements of the New York State Disability and Paid Family Leave Benefits Law.**

## DISABILITY AND PAID FAMILY LEAVE 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 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 the payment of disability benefits and after January first, two thousand and twenty-one, the payment of family leave 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 and after January first, two thousand eighteen, the payment of family leave benefits for all employees has been secured as provided by this article.



CERTIFICATE OF NYS WORKERS' COMPENSATION INSURANCE COVERAGE

Form with fields for: 1a. Legal Name & Address of Insured, 1b. Business Telephone Number of Insured, 1c. NYS Unemployment Insurance Employer Registration Number of Insured, 1d. Federal Employer Identification Number of Insured or Social Security Number, 2. Name and Address of Entity Requesting Proof of Coverage, 3a. Name of Insurance Carrier, 3b. Policy Number of Entity Listed in Box "1a", 3c. Policy effective period, 3d. The Proprietor, Partners or Executive Officers are

This certifies that the insurance carrier indicated above in box "3" insures the business referenced above in box "1a" for workers' compensation under the New York State Workers' Compensation Law. (To use this form, New York (NY) must be listed under Item 3A on the INFORMATION PAGE of the workers' compensation insurance policy). The Insurance Carrier or its licensed agent will send this Certificate of Insurance to the entity listed above as the certificate holder in box "2".

Will the carrier notify the certificate holder within 10 days of a policy being cancelled for non-payment of premium or within 30 days if cancelled for any other reason or if the insured is otherwise eliminated from the coverage indicated on this certificate prior to the end of the policy effective period? YES NO

This certificate is issued as a matter of information only and confers no rights upon the certificate holder. This certificate does not amend, extend or alter the coverage afforded by the policy listed, nor does it confer any rights or responsibilities beyond those contained in the referenced policy.

This certificate may be used as evidence of a Workers' Compensation contract of insurance only while the underlying policy is in effect.

Please Note: Upon cancellation of the workers' compensation 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 Workers' Compensation Coverage or other authorized proof that the business is complying with the mandatory coverage requirements of the New York State Workers' Compensation Law.

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 the coverage as depicted on this form.

Approved by: Mark Connelly (Print name of authorized representative or licensed agent of insurance carrier)

Approved by: (Signature) 6/12/2018 (Date)

Title: (Signature)

Telephone Number of authorized representative or licensed agent of insurance carrier: 203-438-0404

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.

**CITY OF NEW YORK**  
**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.

Fairfield County Bank Insurance Services LLC  
[Name of broker or agent (typewritten)]

401 Main Street Ridgefield CT 06877  
[Address of broker or agent (typewritten)]

mark.connelly@fcbins.com  
[Email address of broker or agent (typewritten)]

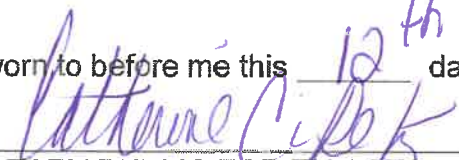
203-894-3188/ 203-431-8789  
[Phone number/Fax number of broker or agent (typewritten)]

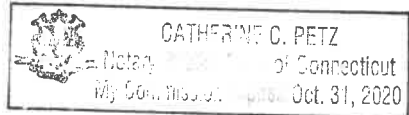
  
[Signature of authorized official, broker, or agent]

Mark Connelly President  
[Name and title of authorized official, broker, or agent (typewritten)]

State of CT.....)  
County of Fairfield.....) ss.:

Sworn to before me this 12<sup>th</sup> day of June, 2018

  
NOTARY PUBLIC FOR THE STATE OF CT



**Performance Bond #2 (Pages 104 to 107): Use if the total contract price is more than \$5 Million.**

PERFORMANCE BOND #2 (Page 2)

good any such default and shall protect the said City of New York against, and pay any and all amounts, damages, cost and judgments which may or shall be recovered against said City or its officers or agents or which the said City of New York may be called upon to pay any person or corporation by reason of any damages arising or growing out of the Principal's default of the Contract, then this obligation shall be null and void, otherwise to remain in full force and effect.

The Surety (Sureties), for value received, hereby stipulates and agrees, upon written notice from the City that the City has determined that the Principal is in default of the Contract, to either (1) pay the full amount of the above penal sum in complete discharge and exoneration of this bond and of all the liabilities of the Surety relating to this bond, or (2) fully perform and complete the Work to be performed under the Contract, pursuant to the terms, conditions, and covenants thereof. The Surety (Sureties) further agrees, at its option, either to tender the penal sum or to commence and diligently perform the Work specified in the Contract, including physical site work, within twenty-five (25) business days after written notice thereof from the City and to complete all Work within the time set forth in the Contract or such other time as agreed to between the City and Surety in accordance with the Contract. The Surety and the City reserve all rights and defenses each may have against the other; provided, however, that the Surety expressly agrees that its reservation of rights shall not provide a basis for non-performance of its obligation to commence and to complete all Work as provided herein.

The Surety (Sureties), for value received, for itself and its successors and assigns, hereby stipulates and agrees that the obligation of said Surety (Sureties) and its bond shall be in no way impaired or affected by any extension of time, modification, omission, addition, or change in or to the said Contract or the Work to be performed thereunder, or by any payment thereunder before the time required therein, or by any waiver of any provisions thereof, or by any assignment, subletting or other transfer thereof or of any Work to be performed or any moneys due or to become due thereunder; and said Surety (Sureties) does hereby waive notice of any and all of such extensions, modifications, omissions, additions, changes, payments, waivers, assignments, subcontracts and transfers, and hereby expressly stipulates and agrees that any and all things done and omitted to be done by and in relation to assignees, subcontractors, and other transferees shall have the same effect as to said Surety (Sureties) as though done or omitted to be done by or in relation to said Principal.

**Performance Bond #2 (Pages 104 to 107): Use if the total contract price is more than \$5 Million.**

PERFORMANCE BOND #2 (Page 3)

IN WITNESS WHEREOF, The Principal and the Surety (Sureties) have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereunto affixed and these presents to be signed by their proper officers, this

\_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_\_ .

(Seal) \_\_\_\_\_ (L.S.)  
Principal

(Seal) By: \_\_\_\_\_  
Surety

(Seal) By: \_\_\_\_\_  
Surety

(Seal) By: \_\_\_\_\_  
Surety

(Seal) By: \_\_\_\_\_  
Surety

(Seal) By: \_\_\_\_\_  
Surety

By: \_\_\_\_\_

Bond Premium Rate \_\_\_\_\_

Bond Premium Cost \_\_\_\_\_

If the Contractor (Principal) is a partnership, the bond should be signed by each of the individuals who are partners.

If the Contractor (Principal) is a corporation, the bond should be signed in its correct corporate name by a duly authorized officer, agent, or attorney-in-fact.

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



**Performance Bond #2 (Pages 104 to 107): Use if the total contract price is more than \$5 Million.**

PERFORMANCE BOND #2 (Page 4)

**ACKNOWLEDGMENT OF PRINCIPAL IF A CORPORATION**

State of \_\_\_\_\_ County of \_\_\_\_\_ ss:

On this \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_\_ before me personally came \_\_\_\_\_, to me known, who, being by me duly sworn did depose and say that he resides at \_\_\_\_\_

\_\_\_\_\_ ; that he/she is the \_\_\_\_\_ of the corporation described in and which executed the foregoing instrument; that he/she signed his/her name to the foregoing instrument by order of the directors of said corporation as the duly authorized and binding act thereof.

\_\_\_\_\_  
Notary Public or Commissioner of Deeds.

**ACKNOWLEDGMENT OF PRINCIPAL IF A PARTNERSHIP**

State of \_\_\_\_\_ County of \_\_\_\_\_ ss:

On this \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_\_ before me personally came \_\_\_\_\_, to me known, who, being by me duly sworn did depose and say that he/she resides at \_\_\_\_\_

\_\_\_\_\_ ; that he/she is \_\_\_\_\_ partner of \_\_\_\_\_, a limited/general partnership existing under the laws of the State of \_\_\_\_\_, the partnership described in and which executed the foregoing instrument; and that he/she signed his/her name to the foregoing instrument as the duly authorized and binding act of said partnership.

\_\_\_\_\_  
Notary Public or Commissioner of Deeds

**ACKNOWLEDGMENT OF PRINCIPAL IF AN INDIVIDUAL**

State of \_\_\_\_\_ County of \_\_\_\_\_ ss:

On this \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_\_ before me personally came \_\_\_\_\_, to me known, who, being by me duly sworn did depose and say that he/she resides at \_\_\_\_\_

\_\_\_\_\_ , and that he/she is the individual whose name is subscribed to the within instrument and acknowledged to me that by his/her signature on the instrument, said individual executed the instrument.

\_\_\_\_\_  
Notary Public or Commissioner of Deeds

Each executed bond should be accompanied by: (a) appropriate acknowledgments of the respective parties; (b) appropriate duly certified copy of Power of Attorney or other certificate of authority where bond is executed by agent, officer or other representative of Principal or Surety; (c) a duly certified extract from By-Laws or resolutions of Surety under which Power of Attorney or other certificate of authority of its agent, officer or representative was issued, and (d) certified copy of latest published financial statement of assets and liabilities of Surety.

\*\*\*\*\*

Affix Acknowledgments and Justification of Sureties.

**Payment Bond (Pages 108 to 111): Use for any contract for which a Payment Bond is required.**

PAYMENT BOND (Page 1)

PAYMENT BOND

KNOW ALL PERSONS BY THESE PRESENTS, That we, \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

hereinafter referred to as the "Principal", and \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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

WHEREAS, the Principal is about to enter, or has entered, into a Contract in writing with the City for

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

a copy of which Contract is annexed to and hereby made a part of this bond as though herein set forth in full;

NOW, THEREFORE, the conditions of this obligation are such that if the Principal, his or its representatives or assigns and other Subcontractors to whom Work under this Contract is sublet and his or their successors and assigns shall promptly pay or cause to be paid all lawful claims for

(a) Wages and compensation for labor performed and services rendered by all persons engaged in the prosecution of the Work under said Contract, and any amendment or extension thereof or addition thereto, whether such persons be agents servants or employees of the Principal or any such Subcontractor, including all persons so engaged who perform the work of laborers or mechanics at or in the vicinity of the site

**Payment Bond (Pages 108 to 111): Use for any contract for which a Payment Bond is required.**

PAYMENT BOND (Page 2)

of the Project regardless of any contractual relationship between the Principal or such Subcontractors, or his or their successors or assigns, on the one hand and such laborers or mechanics on the other, but not including office employees not regularly stationed at the site of the project; and

(b) Materials and supplies (whether incorporated in the permanent structure or not), as well as teams, fuels, oils, implements or machinery furnished, used or consumed by said Principal or any subcontractor at or in the vicinity of the site of the Project in the prosecution of the Work under said Contract and any amendment or extension thereof or addition thereto; then this obligation shall be void, otherwise to remain in full force and effect.

This bond is subject to the following additional conditions, limitations and agreements:

(a) The Principal and Surety (Sureties) agree that this bond shall be for the benefit of any materialmen or laborer having a just claim, as well as the City itself.

(b) All persons who have performed labor, rendered services or furnished materials and supplies, as aforesaid, shall have a direct right of action against the Principal and his, its or their successors and assigns, and the Surety (Sureties) herein, or against either or both or any of them and their successors and assigns. Such persons may sue in their own name, and may prosecute the suit to judgment and execution without the necessity of joining with any other persons as party plaintiff.

(c) The Principal and Surety (Sureties) agree that neither of them will hold the City liable for any judgment for costs of otherwise, obtained by either or both of them against a laborer or materialman in a suit brought by either a laborer or materialman under this bond for moneys allegedly due for performing work or furnishing material.

(d) The Surety (Sureties) or its successors and assigns shall not be liable for any compensation recoverable by an employee or laborer under the Workmen's Compensation Law.

(e) In no event shall the Surety (Sureties), or its successors or assigns, be liable for a greater sum than the penalty of this bond or be subject to any suit, action or proceeding hereon that is instituted by any person, firm, or corporation hereunder later than two years after the complete performance of said Contract and final settlement thereof.

The Principal, for himself and his successors and assigns, and the Surety (Sureties), for itself and its successors and assigns, do hereby expressly waive any objection that might be interposed as to the right of the City to require a bond containing the foregoing provisions, and they do hereby further expressly waive any defense which they or either of them might interpose to an action brought hereon by any person, firm or corporation, including subcontractors, materialmen and third persons, for work, labor, services, supplies or material performed rendered, or furnished as aforesaid upon the ground that there is no law authorizing the City to require the foregoing provisions to be place in this bond.

And the Surety (Sureties), for value received, for itself and its successors and assigns, hereby stipulates and agrees that the obligation of said Surety (Sureties), and its bonds shall be in no way impaired or affected by any extension of time, modification, omission, addition, or change in or of the said Contract or the work to be performed thereunder, or by any payment thereunder before the time required therein, or by any waiver of any provisions thereof, or by any assignment, subletting or other transfer thereof or of any part thereof, or of any Work to be performed, or any moneys due to become due thereunder and said Surety (Sureties) does hereby waive notice of any and all of such extensions, modifications, omissions, additions, changes, payments, waivers, assignments, subcontracts and transfers, and hereby expressly stipulates and agrees that any and all things done and omitted to be done by and in relation to assignees, Subcontractors, and other transferees shall have the same effect as to said Surety (Sureties) as though done or omitted to be done or in relation to said Principal.

**Payment Bond (Pages 108 to 111): Use for any contract for which a Payment Bond is required.**

PAYMENT BOND (Page 3)

IN WITNESS WHEREOF, the Principal and the Surety (Sureties) have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereunto affixed and these presents to be signed by their proper officers, this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

(Seal) \_\_\_\_\_ (L.S.)  
Principal

By: \_\_\_\_\_

(Seal) \_\_\_\_\_  
Surety

By: \_\_\_\_\_

(Seal) \_\_\_\_\_  
Surety

By: \_\_\_\_\_

(Seal) \_\_\_\_\_  
Surety

By: \_\_\_\_\_

(Seal) \_\_\_\_\_  
Surety

By: \_\_\_\_\_

If the Contractor (Principal) is a partnership, the bond should be signed by each of the individuals who are partners.

If the Contractor (Principal) is a corporation, the bond should be signed in its correct corporate name by a duly authorized officer, agent, or attorney-in-fact.

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

**Payment Bond (Pages 108 to 111): Use for any contract for which a Payment Bond is required.**

PAYMENT BOND (Page 4)

**ACKNOWLEDGMENT OF PRINCIPAL, IF A CORPORATION**

State of \_\_\_\_\_ County of \_\_\_\_\_ ss:

On this \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_, before me personally came \_\_\_\_\_ to me known, who, being by me duly sworn did depose and say that he resides at \_\_\_\_\_ that he is the \_\_\_\_\_ of the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that one of the seals affixed to said instrument is such seal; that it was so affixed by order of the directors of said corporation, and that he signed his name thereto by like order.

\_\_\_\_\_  
Notary Public or Commissioner of Deeds

**ACKNOWLEDGMENT OF PRINCIPAL, IF A PARTNERSHIP**

State of \_\_\_\_\_ County of \_\_\_\_\_ ss:

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

\_\_\_\_\_  
Notary Public or Commissioner of Deeds

**ACKNOWLEDGMENT OF PRINCIPAL, IF AN INDIVIDUAL**

State of \_\_\_\_\_ County of \_\_\_\_\_ ss:

On this \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_, before me personally appeared \_\_\_\_\_ to me known, and known to me to be the person described in and who executed the foregoing instrument; and acknowledged that he executed the same.

\_\_\_\_\_  
Notary Public or Commissioner of Deeds

Each executed bond should be accompanied by: (a) appropriate acknowledgments of the respective parties; (b) appropriate duly certified copy of Power of Attorney or other certificate of authority where bond is executed by agent, officer or other representative of Principal or Surety; (c) a duly certified extract from By-Laws or resolutions of Surety under which Power of Attorney or other certificate of authority of its agent, officer or representative was issued, and (d) certified copy of latest published financial statement of assets and liabilities of Surety.

\* \* \* \* \*

Affix Acknowledgments and Justification of Sureties.

(NO TEXT ON THIS PAGE)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE

LABOR LAW §220 PREVAILING WAGE SCHEDULE

Workers, Laborers and Mechanics employed on a public work project must receive not less than the prevailing rate of wage and benefits for the classification of work performed by each upon such public work. Pursuant to Labor Law §220 the Comptroller of the City of New York has promulgated this schedule solely for Workers, Laborers and Mechanics engaged by private contractors on New York City public work contracts.

This schedule is a compilation of separate determinations of the prevailing rate of wage and supplements made by the Comptroller for each trade classification listed herein pursuant to New York State Labor Law section 220 (5). The source of the wage and supplement rates, whether a collective bargaining agreement, survey data or other, is listed at the end of each classification.

Agency Chief Contracting Officers should contact the Bureau of Labor Law's Classification Unit with any questions concerning trade classifications, prevailing rates or prevailing practices with respect to procurement on New York City public works contracts. Contractors are advised to review the Comptroller's Prevailing Wage Schedule before bidding on public works contracts. Contractors with questions concerning trade classifications, prevailing rates or prevailing practices with respect to public works contracts in the procurement stage must contact the contracting agency responsible for the procurement.

Any error as to compensation under the prevailing wage law or other information as to trade classification, made by the contracting agency in the contract documents or in any other communication, will not preclude a finding against the contractor of prevailing wage violation.

Any questions concerning trade classifications, prevailing rates or prevailing practices on New York City public works contracts that have already been awarded may be directed to the Bureau of Labor Law's Classification Unit by calling (212) 669-4443. 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 651, 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](http://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](http://www.comptroller.nyc.gov).

The Comptroller's Office has attempted to include all overtime, shift and night differential, Holiday, Saturday, Sunday or other premium time work. However, this schedule does not set forth every prevailing practice with respect to such rates with which employers must comply. All such practices are nevertheless part of the employer's prevailing wage obligation and contained in the collective bargaining agreements of the prevailing wage unions. These collective bargaining agreements are available for inspection by appointment. Requests for appointments may be made by calling (212) 669-4443, Monday through Friday between the hours of 9 a.m. and 5 p.m.

**OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE**

Prevailing rates and ratios for apprentices are attached to this schedule in the Appendix. Pursuant to Labor Law §220 (3-e), only apprentices who are individually registered in a bona fide program to which the employer contractor is a participant, registered with the New York State Department of Labor, may be employed on a public work project. Workers who are not journey persons or not registered apprentices pursuant to Labor Law §220 (3-e) may not be substituted for apprentices and must be paid as journey persons.

Public Work construction, reconstruction, demolition, excavation, rehabilitation, repair, renovation, alteration, or improvement contracts awarded pursuant to a Project Labor Agreement ("PLA") in accordance with Labor Law section 222 may have different labor standards for shift, premium and overtime work. Please refer to the PLA's pre-negotiated labor agreements for wage and benefit rates applicable to work performed outside of the regular workday. More information is available at the Mayor's Office of Contract Services (MOCS) web page at <http://www.nyc.gov/html/mocs/html/vendors/pla.shtml>.

All the provisions of Labor Law section 220 remain applicable to PLA work including, but not limited to, the enforcement of prevailing wage requirements by the Comptroller; however, we will enforce shift, premium, overtime and other non-standard rates as they appear in a project's pre-negotiated labor agreement.

In order to meet their obligation to provide prevailing supplemental benefits to each covered employee, employers must either:

- 1) Provide bona fide fringe 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 fringe benefits and wage supplements which cost the employer no less than the prevailing supplemental benefits rate in total.

Although prevailing wage laws do not require employers to provide bona fide fringe benefits (as opposed to wage supplements) to their employees, other laws may. For example, the Employee Retirement Income Security Act, 29 U.S.C. § 1001 et seq., the Patient Protection and Affordable Care Act, 42 U.S.C. § 18001 et seq., and the New York City Paid Sick Leave Law, N.Y.C. Admin. Code § 20-911 et seq., require certain employers to provide certain benefits to their employees. Labor agreements to which employers are a party may also require certain benefits. The Comptroller's Office does not enforce these laws or agreements.

**Employers must provide prevailing supplemental benefits at the straight time rate for each hour worked unless otherwise noted in the classification.**

**Wasył Kinach, P.E.  
Director of Classifications  
Bureau of Labor Law**



OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE

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**OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE**

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OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE

## **ASBESTOS HANDLER**

(Hazardous Material; Disturbs, removes, encapsulates, repairs, or encloses friable asbestos material)

### **Asbestos Handler**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$36.00**

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.

Time and one half the regular hourly rate after 40 hours in any work week.

### **Overtime Holidays**

Time and one half the regular rate for work on the following holiday(s).

New Year's Day

Good Friday

Memorial Day

Independence Day

Labor Day

Thanksgiving Day

Christmas Day

Easter

### **Paid Holidays**

None

(Local #78 and Local #12A)

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## **BLASTER**

### **Blaster**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$46.27**

Supplemental Benefit Rate per Hour: **\$47.99**

### **Blaster (Hydraulic)**

Effective Period: 7/1/2017 - 6/30/2018

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE

Wage Rate per Hour: \$47.15

Supplemental Benefit Rate per Hour: \$47.99

**Blaster - Trac Drill Hydraulic**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$41.29

Supplemental Benefit Rate per Hour: \$47.99

**Blaster - Wagon: Air Trac: Quarry Bar: Drillrunners**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$40.46

Supplemental Benefit Rate per Hour: \$47.99

**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: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$39.34

Supplemental Benefit Rate per Hour: \$47.99

**Blaster - Powder Carriers**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$35.17

Supplemental Benefit Rate per Hour: \$47.99

**Blaster - Hydraulic Trac Drill Chuck Tender**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$33.81

Supplemental Benefit Rate per Hour: \$47.99

**Blaster - Chuck Tender & Nipper**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$33.00

Supplemental Benefit Rate per Hour: \$47.99

**Blaster - Magazine Keepers: (Watch Person)**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$18.22

Supplemental Benefit Rate per Hour: \$47.99

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE

## Overtime Description

### Magazine Keepers:

Time and one half for work performed in excess of forty (40) hours per week and for work performed on Saturdays, Sundays and Holidays.

### All Other Employees:

Time and one-half for the first two hours of overtime Monday through Friday, the first ten hours, the first ten hours of work on Saturday and for Make-up Time. Double time for all hours over ten Monday through Saturday (except make-up hours) and for all hours worked on Sunday and Holidays.

## 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  
Thanksgiving Day  
Christmas Day

## Paid Holidays

None

## Shift Rates

A single shift shall be 8 hours plus an unpaid lunch, starting at 8:00 A.M (or between 6:00 A.M. and 10:00 A.M. on weekdays). When two (2) shifts are employed, each shift shall be 8 hours plus ½ hour unpaid lunch. When three (3) shifts are employed, each shift will work seven and one-half (7 ½) hours, but will be paid for eight (8) hours, since only one-half (½) hour is allowed for mealtime. When two (2) or more shifts are employed, single time will be paid for each shift. The first 8 hours of any and all work performed Monday through Friday inclusive of any off-shift shall be at the single time rate.

(Local #29)

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## BOILERMAKER

### Boilermaker

Effective Period: 7/1/2017 - 12/31/2017

Wage Rate per Hour: **\$55.23**

Supplemental Benefit Rate per Hour: **\$42.96**

Supplemental Note: For time and one half overtime - \$63.82 For double overtime - \$84.68

Effective Period: 1/1/2018 - 6/30/2018

Wage Rate per Hour: **\$57.17**

Supplemental Benefit Rate per Hour: **\$43.62**

Supplemental Note: For time and one half overtime - \$64.81 For double overtime - \$86.00

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE

### Overtime Description

For Repair and Maintenance work:

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

For New Construction work:

Double time the regular rate after an 8 hour day.

Double time the regular time rate for Saturday.

Double time the regular rate for Sunday.

### Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Memorial Day

Independence Day

Columbus Day

Election Day

Veteran's Day

Thanksgiving Day

Christmas Day

Quadruple time the regular rate for work on the following holiday(s).

Labor Day

### Paid Holidays

Good Friday

Day after Thanksgiving

Day before Christmas

Day before New Year's Day

### Shift Rates

When shifts are required, the first shift shall work eight (8) hours at the regular straight-time hourly rate. The second shift shall work seven and one-half (7 ½) hours and receive eight hours at the regular straight time hourly rate plus twenty-five cents (\$0.25) per hour. The third shift shall work seven (7) hours and receive eight hours at the regular straight time hourly rate plus fifty cents (\$0.50) per hour. A thirty (30) minute lunch period shall not be considered as time worked. Work in excess of the above shall be paid overtime at the appropriate new construction work or repair work overtime wage and supplemental benefit hourly rate.

(Local #5)

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## BRICKLAYER

### Bricklayer

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$55.10

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE

Supplemental Benefit Rate per Hour: \$31.20

**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

President'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)

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**CARPENTER - BUILDING COMMERCIAL**

**Building Commercial**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$52.50

Supplemental Benefit Rate per Hour: \$46.28

**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

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE

Memorial Day  
Independence Day  
Labor Day  
Columbus Day  
Presidential Election Day  
Thanksgiving Day  
Day after Thanksgiving  
Christmas Day

**Paid Holidays**  
None

**Shift Rates**

The second shift will receive one hour at the double time rate of pay for the last hour of the shift; eight hours pay for seven hours of work, nine hours pay for eight hours of work. There must be a first shift in order to work a second shift.

(Carpenters District Council)

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**CARPENTER - HEAVY CONSTRUCTION WORK**  
**(Construction of Engineering Structures and Building Foundations)**

**Heavy Construction Work**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: \$52.63  
Supplemental Benefit Rate per Hour: \$49.66

**Overtime**

Time and one half the regular rate after an 8 hour day.  
Time and one half the regular rate for Saturday.  
Double time the regular rate for Sunday.  
Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

**Overtime Holidays**

Double time the regular rate for work on the following holiday(s).  
New Year's Day  
President's Day  
Memorial Day  
Independence Day  
Labor Day  
Columbus Day  
Presidential Election Day  
Thanksgiving Day  
Christmas Day



OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE

**Paid Holidays**

None

**Shift Rates**

Off shift work commencing between 5:00 P.M. and 11:00 P.M. shall work eight and one half hours allowing for one half hour for lunch. The wage rate shall be 113% of the straight time hourly wage rate.

(Carpenters District Council)

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**CARPENTER - HIGH RISE CONCRETE FORMS**  
(Excludes Engineering Structures and Building Foundations)

**Carpenter High Rise A**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$50.78

Supplemental Benefit Rate per Hour: \$41.49

**Carpenter High Rise B**

Carpenter High Rise B worker is excluded from high risk operations such as erection decking, perimeter debris netting, leading edge work, self-climbing form systems, and the installation of cocoon systems unless directly supervised by a Carpenter High Rise A worker.

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$39.07

Supplemental Benefit Rate per Hour: \$16.65

**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**

Time and one half 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

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE

Presidential Election Day  
Thanksgiving Day  
Christmas Day

**Paid Holidays**

None

**Shift Rates**

The second shift wage rate shall be 113% of the straight time hourly wage rate. There must be a first shift in order to work a second shift.

(Carpenters District Council)

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**CARPENTER - SIDEWALK SHED, SCAFFOLD AND HOIST**

**Carpenter - Hod Hoist**

(Assisted by Mason Tender)

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$50.50

Supplemental Benefit Rate per Hour: \$39.46

**Overtime**

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

**Overtime Holidays**

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Presidential Election Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

**Paid Holidays**

None

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE

## 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)

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## CEMENT & CONCRETE WORKER

### Cement & Concrete Worker

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$42.48**

Supplemental Benefit Rate per Hour: **\$26.00**

Supplemental Note: \$29.50 on Saturdays; \$33.00 on Sundays & Holidays

### Cement & Concrete Worker - (Hired after 2/6/2016)

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$32.00**

Supplemental Benefit Rate per Hour: **\$18.00**

Supplemental Note: \$19.50 on Saturdays; \$21.00 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

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE

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)

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## CEMENT MASON

### Cement Mason

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$42.62**

Supplemental Benefit Rate per Hour: **\$38.96**

Supplemental Note: For time and one half overtime - \$48.21; For double overtime - \$57.46

### Overtime Description

Time and one-half the regular rate after an 8 hour day, double time the regular rate after 10 hours. Time and one-half the regular rate on Saturday, double time the regular rate after 10 hours. Double time the regular rate on Sunday.

### Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day  
President's Day  
Good Friday  
Memorial Day  
Independence Day  
Labor Day  
Columbus Day  
Presidential Election Day  
Thanksgiving Day  
Christmas Day

### Paid Holidays

Any worker who reports to work on Christmas Eve or New Year's Eve pursuant to his employer's instruction shall be entitled to three (3) hours afternoon pay without working.

### Shift Rates

For an off shift day, (work at times other than the regular 7:00 A.M. to 3:30 P.M. work day) a cement mason shall be paid at the regular hourly rate plus a 25% per hour differential. Four Days a week at Ten (10)hour day.

(Local #780) (BCA)

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## **CORE DRILLER**

### **Core Driller**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$38.82**

Supplemental Benefit Rate per Hour: **\$24.66**

### **Core Driller Helper**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$30.96**

Supplemental Benefit Rate per Hour: **\$24.66**

### **Core Driller Helper(Third year in the industry)**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$27.86**

Supplemental Benefit Rate per Hour: **\$24.66**

### **Core Driller Helper (Second year in the industry)**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$24.77**

Supplemental Benefit Rate per Hour: **\$24.66**

### **Core Driller Helper (First year in the industry)**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$21.67**

Supplemental Benefit Rate per Hour: **\$24.66**

### **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

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE

Labor Day  
Thanksgiving Day  
Christmas Day

### Shift Rates

The shift day shall be the continuous eight and one-half (8½) hours from 6:00 A.M. to 2:30 P.M. and from 2:30 P.M. to 11:00 P.M., including one-half (½) hour of employees regular rate of pay for lunch. When two (2) or more shifts are employed, single time shall be paid for each shift, but those employees employed on a shift other than from 8:00 A.M. to 5:00 P.M. shall, in addition, receive seventy-five cents (\$0.75) per hour differential for each hour worked. When three (3) shifts are needed, each shift shall work seven and one-half (7 ½) hours paid for eight (8) hours of labor and be permitted one-half (½) hour for mealtime.

(Carpenters District Council)

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## DERRICKPERSON AND RIGGER

### Derrick Person & Rigger

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$46.86**

Supplemental Benefit Rate per Hour: **\$51.40**

Supplemental Note: The above supplemental rate applies for work performed in Manhattan, Bronx, Brooklyn and Queens. \$52.82 - For work performed in Staten Island.

### Derrick Person & Rigger - Site Work

Assists the Stone Mason-Setter in the setting of stone

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$40.29**

Supplemental Benefit Rate per Hour: **\$39.23**

### 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

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE

Independence Day  
Labor Day  
Thanksgiving Day  
Christmas Day

**Paid Holidays**

1/2 day on Christmas Eve if work is performed in the A.M.

(Local #197)

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**DIVER**

**Diver (Marine)**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$66.66**

Supplemental Benefit Rate per Hour: **\$49.66**

**Diver Tender (Marine)**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$47.34**

Supplemental Benefit Rate per Hour: **\$49.66**

**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

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE

**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)

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**DOCKBUILDER - PILE DRIVER**

**Dockbuilder - Pile Driver**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$52.63**

Supplemental Benefit Rate per Hour: **\$49.66**

**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**

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)

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OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE

## **DRIVER: TRUCK (TEAMSTER)**

### **Driver - Dump Truck**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$41.18**

Supplemental Benefit Rate per Hour: **\$44.79**

Supplemental Note: Over 40 hours worked: at time and one half rate - \$19.94; at double time rate - \$26.58

### **Driver - Tractor Trailer**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$42.22**

Supplemental Benefit Rate per Hour: **\$45.40**

Supplemental Note: Over 40 hours worked: at time and one half rate - \$17.55; at double time rate - \$23.40

### **Driver - Euclid & Turnapull Operator**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$42.78**

Supplemental Benefit Rate per Hour: **\$45.40**

Supplemental Note: Over 40 hours worked: at time and one half rate - \$17.55 at double time rate - \$23.40

## **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

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE

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.

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### Driver Redi-Mix (Sand & Gravel)

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$38.40**

Supplemental Benefit Rate per Hour: **\$42.12**

Supplemental Note: Over 40 hours worked: time and one half rate \$15.99, double time rate \$21.33

### 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

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE

Election Day  
Thanksgiving Day  
Christmas Day

(Local #282)

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## **ELECTRICIAN**

(Including all low voltage cabling carrying data; video; and voice in combination with data and or video.)

### **Electrician "A" (Regular Day / Day Shift)**

Effective Period: 7/1/2017 - 5/9/2018

Wage Rate per Hour: **\$56.00**

Supplemental Benefit Rate per Hour: **\$54.35**

Effective Period: 5/10/2018 - 6/30/2018

Wage Rate per Hour: **\$56.00**

Supplemental Benefit Rate per Hour: **\$55.72**

### **Electrician "A" (Regular Day Overtime after 7 hrs / Day Shift Overtime after 8 hrs)**

Effective Period: 7/1/2017 - 5/9/2018

Wage Rate per Hour: **\$84.00**

Supplemental Benefit Rate per Hour: **\$57.86**

Effective Period: 5/10/2018 - 6/30/2018

Wage Rate per Hour: **\$84.00**

Supplemental Benefit Rate per Hour: **\$59.23**

### **Electrician "A" (Swing Shift)**

Effective Period: 7/1/2017 - 5/9/2018

Wage Rate per Hour: **\$65.71**

Supplemental Benefit Rate per Hour: **\$61.94**

Effective Period: 5/10/2018 - 6/30/2018

Wage Rate per Hour: **\$65.71**

Supplemental Benefit Rate per Hour: **\$63.52**

### **Electrician "A" (Swing Shift Overtime After 7.5 hours)**

Effective Period: 7/1/2017 - 5/9/2018

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE

Wage Rate per Hour: **\$98.57**  
Supplemental Benefit Rate per Hour: **\$66.05**

Effective Period: 5/10/2018 - 6/30/2018  
Wage Rate per Hour: **\$98.57**  
Supplemental Benefit Rate per Hour: **\$67.64**

**Electrician "A" (Graveyard Shift)**

Effective Period: 7/1/2017 - 5/9/2018  
Wage Rate per Hour: **\$73.60**  
Supplemental Benefit Rate per Hour: **\$68.33**

Effective Period: 5/10/2018 - 6/30/2018  
Wage Rate per Hour: **\$73.60**  
Supplemental Benefit Rate per Hour: **\$70.09**

**Electrician "A" (Graveyard Shift Overtime After 7 hours)**

Effective Period: 7/1/2017 - 5/9/2018  
Wage Rate per Hour: **\$110.40**  
Supplemental Benefit Rate per Hour: **\$72.95**

Effective Period: 5/10/2018 - 6/30/2018  
Wage Rate per Hour: **\$110.40**  
Supplemental Benefit Rate per Hour: **\$74.70**

**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 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**

**OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE**

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 \$25.67 and effective 5/10/18 \$25.92.

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**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: 7/1/2017 - 5/9/2018

Wage Rate per Hour: **\$28.50**

Supplemental Benefit Rate per Hour: **\$22.10**

First and Second Year "M" Wage Rate Per Hour: **\$24.00**

First and Second Year "M" Supplemental Rate: **\$19.80**

Effective Period: 5/10/2018 - 6/30/2018

Wage Rate per Hour: **\$29.00**

Supplemental Benefit Rate per Hour: **\$22.65**

First and Second Year "M" Wage Rate Per Hour: **\$24.50**

First and Second Year "M" Supplemental Rate: **\$20.30**

**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: 7/1/2017 - 5/9/2018

Wage Rate per Hour: **\$42.75**

Supplemental Benefit Rate per Hour: **\$23.89**

First and Second Year "M" Wage Rate Per Hour: **\$36.00**

First and Second Year "M" Supplemental Rate: **\$21.30**

Effective Period: 5/10/2018 - 6/30/2018

Wage Rate per Hour: **\$43.50**

Supplemental Benefit Rate per Hour: **\$24.47**

First and Second Year "M" Wage Rate Per Hour: **\$36.75**

First and Second Year "M" Supplemental Rate: **\$21.84**

**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.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE

**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)

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**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: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$32.40**

Supplemental Benefit Rate per Hour: **\$16.10**

Supplemental Note: \$14.60 only after 8 hours worked in a day

**Overtime Description**

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

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE

Martin Luther King Jr. Day  
President's Day  
Memorial Day  
Independence Day  
Labor Day  
Columbus Day  
Veteran's Day  
Thanksgiving Day  
Day after Thanksgiving  
Christmas Day

**Shift Rates**

Night Differential is based upon a ten percent (10%) differential between the hours of 4:00 P.M. and 12:30 A.M. and a fifteen percent (15%) differential for the hours 12:00 A.M. to 8:00 A.M.

**Vacation**

At least 1 year of employment.....ten (10) days  
5 years or more of employment.....fifteen (15) days  
10 years of employment.....twenty (20) days  
Plus one Personal Day per year

**Sick Days:**

One day per Year. Up to 4 vacation days may be used as sick days.

(Local #3)

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**ELECTRICIAN-STREET LIGHTING WORKER**

**Electrician - Electro Pole Electrician**

Effective Period: 7/1/2017 - 5/15/2018  
Wage Rate per Hour: **\$56.00**  
Supplemental Benefit Rate per Hour: **\$56.26**

Effective Period: 5/16/2018 - 6/30/2018  
Wage Rate per Hour: **\$56.00**  
Supplemental Benefit Rate per Hour: **\$57.63**

**Electrician - Electro Pole Foundation Installer**

Effective Period: 7/1/2017 - 5/15/2018  
Wage Rate per Hour: **\$41.54**  
Supplemental Benefit Rate per Hour: **\$41.02**

Effective Period: 5/16/2018 - 6/30/2018  
Wage Rate per Hour: **\$42.16**  
Supplemental Benefit Rate per Hour: **\$42.19**

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE

**Electrician - Electro Pole Maintainer**

Effective Period: 7/1/2017 - 5/16/2018

Wage Rate per Hour: **\$35.58**

Supplemental Benefit Rate per Hour: **\$36.89**

Effective Period: 5/17/2018 - 6/30/2018

Wage Rate per Hour: **\$36.11**

Supplemental Benefit Rate per Hour: **\$37.93**

**Overtime Description**

Electrician - Electro Pole Electrician: Time and one half the regular rate after a 7 hour day and after 5 consecutive days worked per week.

Electrician - Electro Pole Foundation Installer: Time and one half the regular rate after 8 hours within a 24 hour period and Saturday and Sunday.

Electrician - Electro Pole Maintainer: Time and one half the regular rate after a 7 hour day and after 5 consecutive days worked per week. Saturdays and Sundays may be used as a make-up day at straight time when a day is lost during the week to inclement weather.

**Overtime Holidays**

Time and one half the regular rate for work on the following holiday(s).

New Year's Day

Martin Luther King Jr. Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

**Paid Holidays**

None

(Local #3)

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**ELEVATOR CONSTRUCTOR**

**Elevator Constructor**

Effective Period: 7/1/2017 - 3/16/2018

Wage Rate per Hour: **\$62.64**

Supplemental Benefit Rate per Hour: **\$34.25**



OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE

Effective Period: 3/17/2018 - 6/30/2018

Wage Rate per Hour: \$64.48

Supplemental Benefit Rate per Hour: \$35.85

### 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)

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## ELEVATOR REPAIR & MAINTENANCE

### Elevator Service/Modernization Mechanic

Effective Period: 7/1/2017 - 3/16/2018

Wage Rate per Hour: \$49.14

Supplemental Benefit Rate per Hour: \$34.11

Effective Period: 3/17/2018 - 6/30/2018

Wage Rate per Hour: \$50.49

Supplemental Benefit Rate per Hour: \$35.71

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE

### Overtime Description

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)

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## ENGINEER

### Engineer - Heavy Construction Operating Engineer I

Cherry pickers 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: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$67.32**

Supplemental Benefit Rate per Hour: **\$36.87**

Supplemental Note: \$66.34 on overtime

Shift Wage Rate: **\$107.71**

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE

**Engineer - Heavy Construction Operating Engineer II**

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: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$65.31

Supplemental Benefit Rate per Hour: \$36.87

Supplemental Note: \$66.34 on overtime

Shift Wage Rate: \$104.50

**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: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$61.93

Supplemental Benefit Rate per Hour: \$36.87

Supplemental Note: \$66.34 on overtime

Shift Wage Rate: \$99.09

**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: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$65.00

Supplemental Benefit Rate per Hour: \$36.87

Supplemental Note: \$66.34 on overtime

Shift Wage Rate: \$104.00

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
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**Engineer - Heavy Construction Maintenance Engineer II**

On Base Mounted Tower Cranes

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$85.53**

Supplemental Benefit Rate per Hour: **\$36.87**

Supplemental Note: **\$66.34** on overtime

Shift Wage Rate: **\$136.85**

**Engineer - Heavy Construction Maintenance Engineer III**

On Generators, Light Towers

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$42.73**

Supplemental Benefit Rate per Hour: **\$36.87**

Supplemental Note: **\$66.34** on overtime

Shift Wage Rate: **\$68.37**

**Engineer - Heavy Construction Maintenance Engineer IV**

On Pumps and Mixers including mud sucking

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$43.86**

Supplemental Benefit Rate per Hour: **\$36.87**

Supplemental Note: **\$66.34** on overtime

Shift Wage Rate: **\$70.18**

**Engineer - Heavy Construction Oilers I**

Gradalls, Cold Planer Grader, Concrete Pumps, Driving Truck Cranes, Driving and Operating Fuel and Grease Trucks.

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$58.57**

Supplemental Benefit Rate per Hour: **\$36.87**

Supplemental Note: **\$66.34** on overtime

Shift Wage Rate: **\$93.71**

**Engineer - Heavy Construction Oilers II**

All gasoline, electric, diesel or air operated Shovels, Draglines, Backhoes, Keystones, Pavers, Guniting Machines, Battery of Compressors, Crawler Cranes, two-person Trenching Machines.

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$40.36**

Supplemental Benefit Rate per Hour: **\$36.87**

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
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Supplemental Note: \$66.34 on overtime  
Shift Wage Rate: \$64.58

**Engineer - Steel Erection Maintenance Engineers**

Derrick, Travelers, Tower, Crawler Tower and Climbing Cranes

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: \$61.13  
Supplemental Benefit Rate per Hour: \$35.41  
Supplemental Note: \$63.67 on overtime  
Shift Wage Rate: \$97.81

**Engineer - Steel Erection Oiler I**

On a Truck Crane

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: \$57.21  
Supplemental Benefit Rate per Hour: \$35.41  
Supplemental Note: \$63.67 on overtime  
Shift Wage Rate: \$91.54

**Engineer - Steel Erection Oiler II**

On a Crawler Crane

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: \$43.54  
Supplemental Benefit Rate per Hour: \$35.41  
Supplemental Note: \$63.67 on overtime  
Shift Wage Rate: \$69.66

**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

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE

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

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### **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: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$58.30**

Supplemental Benefit Rate per Hour: **\$35.41**

Supplemental Note: \$63.67 on overtime

### **Engineer - Building Work Maintenance Engineers II**

On Pumps, Generators, Mixers and Heaters

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$45.28**

Supplemental Benefit Rate per Hour: **\$35.41**

Supplemental Note: \$63.67 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: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$55.42**

Supplemental Benefit Rate per Hour: **\$35.41**

Supplemental Note: \$63.67 on overtime

### **Engineer - Building Work Oilers II**

Oilers on Crawler Cranes, Backhoes, Trenching Machines, Gunite Machines, Compressors (three or more in Battery).

Effective Period: 7/1/2017 - 6/30/2018

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE

Wage Rate per Hour: **\$41.16**

Supplemental Benefit Rate per Hour: **\$35.41**

Supplemental Note: **\$63.67** on overtime

### **Overtime Description**

On jobs of more than one shift, if an Employee fails to report for work through any cause over which the Employer has no control, the Employee on duty will continue to work at the rate of single time.

### **Overtime**

Double time the regular rate after an 8 hour day.

Double time the regular time rate for Saturday.

Double time the regular rate for Sunday.

Double time the regular rate for work on the following holiday(s).

### **Paid Holidays**

New Year's Day

Lincoln's Birthday

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Christmas Day

Employees must work at least one day in the payroll week in which the holiday occurs to receive the paid holiday

### **Shift Rates**

Off Shift: double time the regular hourly rate.

(Local #15)

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## **ENGINEER - CITY SURVEYOR AND CONSULTANT**

### **Party Chief**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$38.18**

Supplemental Benefit Rate per Hour: **\$20.15**

Supplemental Note: Overtime Benefit Rate - \$27.65 per hour (time & one half) \$35.15 per hour (double time).

### **Instrument Person**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$31.47**

Supplemental Benefit Rate per Hour: **\$20.15**

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE

Supplemental Note: Overtime Benefit Rate - \$27.65 per hour (time & one half) \$35.15 per hour (double time).

**Rodperson**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$27.24

Supplemental Benefit Rate per Hour: \$20.15

Supplemental Note: Overtime Benefit Rate - \$27.65 per hour (time & one half) \$35.15 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

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)

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**ENGINEER - FIELD (BUILDING CONSTRUCTION)**  
**(Construction of Building Projects, Concrete Superstructures, etc.)**

**Field Engineer - BC Party Chief**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$60.10

Supplemental Benefit Rate per Hour: \$32.15

Supplemental Note: Overtime Benefit Rate - \$44.90 per hour (time & one half) \$57.65 per hour (double time).

**Field Engineer - BC Instrument Person**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$46.69

Supplemental Benefit Rate per Hour: \$32.15



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§220 PREVAILING WAGE SCHEDULE

Supplemental Note: Overtime Benefit Rate - \$44.90 per hour (time & one half) \$57.65 per hour (double time).

**Field Engineer - BC Rodperson**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$30.20

Supplemental Benefit Rate per Hour: \$32.15

Supplemental Note: Overtime Benefit Rate - \$44.90 per hour (time & one half) \$57.65 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)

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**ENGINEER - FIELD (HEAVY CONSTRUCTION)**  
(Construction of Roads, Tunnels, Bridges, Sewers, Building Foundations,  
Engineering Structures etc.)

**Field Engineer - HC Party Chief**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$70.25

Supplemental Benefit Rate per Hour: \$34.18

Supplemental Note: Overtime benefit rate - \$47.82 per hour (time & one half), \$61.46 per hour (double time).

**Field Engineer - HC Instrument Person**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$51.64

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Supplemental Benefit Rate per Hour: **\$34.18**

Supplemental Note: Overtime benefit rate - \$47.82 per hour (time & one half), \$61.46 per hour (double time).

**Field Engineer - HC Rodperson**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$43.37**

Supplemental Benefit Rate per Hour: **\$34.18**

Supplemental Note: Overtime benefit rate - \$47.82 per hour (time & one half), \$61.46 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)

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**ENGINEER - FIELD (STEEL ERECTION)**

**Field Engineer - Steel Erection Party Chief**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$63.64**

Supplemental Benefit Rate per Hour: **\$33.04**

Supplemental Note: Overtime benefit rate - \$46.11 per hour (time & one half), \$59.18 per hour (double time).

**Field Engineer - Steel Erection Instrument Person**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$49.59**

Supplemental Benefit Rate per Hour: **\$33.04**

Supplemental Note: Overtime benefit rate - \$46.11 per hour (time & one half), \$59.18 per hour (double time).

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**Field Engineer - Steel Erection Rodperson**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$33.20

Supplemental Benefit Rate per Hour: \$33.04

Supplemental Note: Overtime benefit rate - \$46.11 per hour (time & one half), \$59.18 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)

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**ENGINEER - OPERATING**

**Operating Engineer - Road & Heavy Construction I**

Back Filling Machines, Cranes, Mucking Machines and Dual Drum Paver.

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$76.60

Supplemental Benefit Rate per Hour: \$31.10

Supplemental Note: \$56.50 overtime hours

Shift Wage Rate: \$122.56

**Operating Engineer - Road & Heavy Construction II**

Backhoes, Power Shovels, Hydraulic Clam Shells, Steel Erection, Moles and machines of a similar nature.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: \$79.28  
Supplemental Benefit Rate per Hour: \$31.10  
Supplemental Note: \$56.50 overtime hours  
Shift Wage Rate: \$126.85

**Operating Engineer - Road & Heavy Construction III**

Mine Hoists, Cranes, etc. (Used as Mine Hoists)

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: \$81.80  
Supplemental Benefit Rate per Hour: \$31.10  
Supplemental Note: \$56.50 overtime hours  
Shift Wage Rate: \$130.88

**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: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: \$79.85  
Supplemental Benefit Rate per Hour: \$31.10  
Supplemental Note: \$56.50 overtime hours  
Shift Wage Rate: \$127.76

**Operating Engineer - Road & Heavy Construction V**

Pile Drivers & Rigs (employing Dock Builder foreperson): Derrick Boats, Tunnel Shovels.

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: \$78.29  
Supplemental Benefit Rate per Hour: \$31.10  
Supplemental Note: \$56.50 overtime hours  
Shift Wage Rate: \$125.26

**Operating Engineer - Road & Heavy Construction VI**

Mixers (Concrete with loading attachment), Concrete Pavers, Cableways, Land Derricks, Power Houses (Low Air Pressure Units).

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: \$74.42  
Supplemental Benefit Rate per Hour: \$31.10  
Supplemental Note: \$56.50 overtime hours  
Shift Wage Rate: \$119.07

**Operating Engineer - Road & Heavy Construction VII**

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Barrier Movers , Barrier Transport and Machines of a Similar Nature.

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$60.22**

Supplemental Benefit Rate per Hour: **\$31.10**

Supplemental Note: \$56.50 overtime hours

Shift Wage Rate: **\$96.35**

**Operating Engineer - Road & Heavy Construction VIII**

Utility Compressors

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$46.88**

Supplemental Benefit Rate per Hour: **\$31.10**

Supplemental Note: \$56.50 overtime hours

Shift Wage Rate: **\$58.92**

**Operating Engineer - Road & Heavy Construction IX**

Horizontal Boring Rig

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$70.79**

Supplemental Benefit Rate per Hour: **\$31.10**

Supplemental Note: \$56.50 overtime hours

Shift Wage Rate: **\$113.26**

**Operating Engineer - Road & Heavy Construction X**

Elevators (manually operated as personnel hoist).

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$65.12**

Supplemental Benefit Rate per Hour: **\$31.10**

Supplemental Note: \$56.50 overtime hours

Shift Wage Rate: **\$104.19**

**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: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$50.73**

Supplemental Benefit Rate per Hour: **\$31.10**

Supplemental Note: \$56.50 overtime hours

Shift Wage Rate: **\$81.17**

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**Operating Engineer - Road & Heavy Construction XII**

All Drills and Machines of a similar nature.

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$75.19

Supplemental Benefit Rate per Hour: \$31.10

Supplemental Note: \$56.50 overtime hours

Shift Wage Rate: \$120.30

**Operating Engineer - Road & Heavy Construction XIII**

Concrete Pumps, Concrete Plant, Stone Crushers, Double Drum Hoist, Power Houses (other than above).

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$72.84

Supplemental Benefit Rate per Hour: \$31.10

Supplemental Note: \$56.50 overtime hours

Shift Wage Rate: \$116.54

**Operating Engineer - Road & Heavy Construction XIV**

Concrete Mixer

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$69.67

Supplemental Benefit Rate per Hour: \$31.10

Supplemental Note: \$56.50 overtime hours

Shift Wage Rate: \$111.47

**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: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$47.18

Supplemental Benefit Rate per Hour: \$31.10

Supplemental Note: \$56.50 overtime hours

Shift Wage Rate: \$75.49

**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: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$66.56

Supplemental Benefit Rate per Hour: \$31.10

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Supplemental Note: \$56.50 overtime hours  
Shift Wage Rate: \$106.50

**Operating Engineer - Road & Heavy Construction XVII**

On-Site concrete plant engineer, On-site Asphalt Plant Engineer, and Vibratory console.

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: \$67.07  
Supplemental Benefit Rate per Hour: \$31.10  
Supplemental Note: \$56.50 overtime hours  
Shift Wage Rate: \$107.31

**Operating Engineer - Road & Heavy Construction XVIII**

Tower Crane

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: \$95.98  
Supplemental Benefit Rate per Hour: \$31.10  
Supplemental Note: \$56.50 overtime hours  
Shift Wage Rate: \$153.57

**Operating Engineer - Paving I**

Asphalt Spreaders, Autogrades (C.M.I.), Roto/Mil

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: \$74.42  
Supplemental Benefit Rate per Hour: \$31.10  
Supplemental Note: \$56.50 overtime hours  
Shift Wage Rate: \$119.07

**Operating Engineer - Paving II**

Asphalt Roller

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: \$72.50  
Supplemental Benefit Rate per Hour: \$31.10  
Supplemental Note: \$56.50 overtime hours  
Shift Wage Rate: \$116.00

**Operating Engineer - Paving III**

Asphalt Plants

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: \$61.43

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Supplemental Benefit Rate per Hour: **\$31.10**  
Supplemental Note: **\$56.50** overtime hours  
Shift Wage Rate: **\$98.29**

**Operating Engineer - Concrete I**

Cranes

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: **\$79.50**  
Supplemental Benefit Rate per Hour: **\$31.10**  
Supplemental Note: **\$56.50** overtime hours

**Operating Engineer - Concrete II**

Compressors

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: **\$47.54**  
Supplemental Benefit Rate per Hour: **\$31.10**  
Supplemental Note: **\$56.50** overtime hours

**Operating Engineer - Concrete III**

Micro-traps (Negative Air Machines), Vac-All Remediation System.

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: **\$63.66**  
Supplemental Benefit Rate per Hour: **\$31.10**  
Supplemental Note: **\$56.50** overtime hours

**Operating Engineer - Steel Erection I**

Three Drum Derricks

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: **\$82.23**  
Supplemental Benefit Rate per Hour: **\$31.10**  
Supplemental Note: **\$56.50** overtime hours  
Shift Wage Rate: **\$131.57**

**Operating Engineer - Steel Erection II**

Cranes, 2 Drum Derricks, Hydraulic Cranes, Fork Lifts and Boom Trucks.

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: **\$79.04**  
Supplemental Benefit Rate per Hour: **\$31.10**  
Supplemental Note: **\$56.50** overtime hours  
Shift Wage Rate: **\$126.46**



OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
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**Operating Engineer - Steel Erection III**

Compressors, Welding Machines.

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$47.14

Supplemental Benefit Rate per Hour: \$31.10

Supplemental Note: \$56.50 overtime hours

Shift Wage Rate: \$75.42

**Operating Engineer - Steel Erection IV**

Compressors - Not Combined with Welding Machine.

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$44.91

Supplemental Benefit Rate per Hour: \$31.10

Supplemental Note: \$56.50 overtime hours

Shift Wage Rate: \$71.86

**Operating Engineer - Building Work I**

Forklifts, Plaster (Platform machine), Plaster Bucket, Concrete Pump and all other equipment used for hoisting material.

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$62.87

Supplemental Benefit Rate per Hour: \$31.10

Supplemental Note: \$56.50 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: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$47.01

Supplemental Benefit Rate per Hour: \$31.10

Supplemental Note: \$56.50 overtime hours

**Operating Engineer - Building Work III**

Double Drum

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$71.60

Supplemental Benefit Rate per Hour: \$31.10

Supplemental Note: \$56.50 overtime hours

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
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**Operating Engineer - Building Work IV**

Stone Derrick, Cranes, Hydraulic Cranes Boom Trucks.

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$75.87**

Supplemental Benefit Rate per Hour: **\$31.10**

Supplemental Note: \$56.50 overtime hours

**Operating Engineer - Building Work V**

Dismantling and Erection of Cranes, Relief Engineer.

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$69.88**

Supplemental Benefit Rate per Hour: **\$31.10**

Supplemental Note: \$56.50 overtime hours

**Operating Engineer - Building Work VI**

4 Pole Hoist, Single Drum Hoists.

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$69.14**

Supplemental Benefit Rate per Hour: **\$31.10**

Supplemental Note: \$56.50 overtime hours

**Operating Engineer - Building Work VII**

Rack & Pinion and House Cars

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$54.92**

Supplemental Benefit Rate per Hour: **\$31.10**

Supplemental Note: \$56.50 overtime hours

For New House Car projects Wage Rate per Hour \$43.77

**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).

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
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**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

**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)

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**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: 7/1/2017 - 6/30/2018

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

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE

Presidential Election Day  
Thanksgiving Day  
Day after Thanksgiving  
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**

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)

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## **GLAZIER** **(New Construction, Remodeling, and Alteration)**

### **Glazier**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: **\$44.70**  
Supplemental Benefit Rate per Hour: **\$40.99**  
Supplemental Note: Supplemental Benefit Overtime Rate: **\$50.09**

### **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  
Christmas Day

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE

**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)

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**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 \$127,628. 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: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$24.13**

Supplemental Benefit Rate per Hour: **\$21.12**

**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)

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## HEAT AND FROST INSULATOR

### Heat & Frost Insulator

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$58.38**

Supplemental Benefit Rate per Hour: **\$39.46**

### 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) (BCA)

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OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE

**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: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$36.33**

Supplemental Benefit Rate per Hour: **\$29.22**

**House Wrecker - Tier B**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$25.56**

Supplemental Benefit Rate per Hour: **\$21.63**

**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)

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**IRON WORKER - ORNAMENTAL**

**Iron Worker - Ornamental**

Effective Period: 7/1/2017 - 6/30/2018

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE

Wage Rate per Hour: **\$44.20**

Supplemental Benefit Rate per Hour: **\$51.57**

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)

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## IRON WORKER - STRUCTURAL

### Iron Worker - Structural

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$50.05**

Supplemental Benefit Rate per Hour: **\$72.53**

Supplemental Note: Supplemental benefits are to be paid at the applicable overtime rate when overtime is in effect.

### Overtime Description



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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  
President's Day  
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)

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## LABORER

(Foundation, Concrete, Excavating, Street Pipe Layer and Common)

### Laborer

Excavation and foundation work for buildings, heavy construction, engineering work, and hazardous waste removal in connection with the above work. Landscaping tasks in connection with heavy construction work, engineering work and building projects. Projects include, but are not limited to pollution plants, sewers, parks, subways, bridges, highways, etc.

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$41.50

Supplemental Benefit Rate per Hour: \$40.63

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE

### **Overtime**

Time and one half the regular rate after an 8 hour day.  
Time and one half the regular rate for Saturday.  
Double time the regular rate for Sunday.

### **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  
Thanksgiving Day  
Christmas Day

### **Paid Holidays**

Labor Day  
Thanksgiving Day

### **Shift Rates**

When two shifts are employed, single time rate shall be paid for each shift. When three shifts are found necessary, each shift shall work seven and one half hours (7 ½), but shall be paid for eight (8) hours of labor, and be permitted one half hour for lunch.

(Local #731)

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## **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: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: **\$28.75**  
Supplemental Benefit Rate per Hour: **\$15.55**

### **Landscaper (3 - 6 years experience)**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: **\$27.75**  
Supplemental Benefit Rate per Hour: **\$15.55**

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE

**Landscaper (up to 3 years experience)**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$25.25

Supplemental Benefit Rate per Hour: \$15.55

**Groundperson**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$25.25

Supplemental Benefit Rate per Hour: \$15.55

**Tree Remover / Pruner**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$33.75

Supplemental Benefit Rate per Hour: \$15.55

**Landscaper Sprayer (Pesticide Applicator)**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$23.75

Supplemental Benefit Rate per Hour: \$15.55

**Watering - Plant Maintainer**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$18.72

Supplemental Benefit Rate per Hour: \$15.55

**Overtime Description**

For all overtime work performed, supplemental benefits shall include an additional seventy-five (\$0.75) cents per hour.

**Overtime**

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Time and one half the regular rate for work on a holiday plus the day's pay.

**Paid Holidays**

New Year's Day

Memorial Day

Independence Day

Labor Day

Thanksgiving Day

Christmas Day

**Shift Rates**

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE

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)

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## **MARBLE MECHANIC**

### **Marble Setter**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$52.74**

Supplemental Benefit Rate per Hour: **\$38.67**

### **Marble Finisher**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$41.46**

Supplemental Benefit Rate per Hour: **\$36.64**

### **Marble Polisher**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$37.93**

Supplemental Benefit Rate per Hour: **\$28.33**

### **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.

### **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

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE

Christmas Day

**Paid Holidays**

None

(Local #7)

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**MASON TENDER**

**Mason Tender**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$37.90

Supplemental Benefit Rate per Hour: \$30.59

**Overtime**

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

**Overtime Holidays**

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Memorial Day

Independence Day

Labor Day

Thanksgiving Day

Christmas Day

**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)

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OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
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## MASON TENDER (INTERIOR DEMOLITION WORKER)

### Mason Tender Tier A

Tier A Interior Demolition Worker performs all burning, chopping, and other technically skilled tasks related to interior demolition work.

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$36.19**

Supplemental Benefit Rate per Hour: **\$24.25**

### Mason Tender Tier B

Tier B Interior Demolition Worker performs manual work and work incidental to demolition work, such as loading and carting of debris from the work site to an area where it can be loaded in to bins/trucks for removal. Also performs clean-up of the site when demolition is completed.

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$25.38**

Supplemental Benefit Rate per Hour: **\$18.57**

### **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)

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## METALLIC LATHER

### Metallic Lather

Effective Period: 7/1/2017 - 6/30/2018

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
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Wage Rate per Hour: **\$46.28**

Supplemental Benefit Rate per Hour: **\$42.92**

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

Memorial Day

Independence Day

Labor Day

Columbus 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 will be no shift differential paid on the first shift if more than one shift is employed. The shift differential will remain \$12/hour on the second and third shift for the first eight (8) hours if worked. There will be no pyramiding on overtime worked on second and third shifts. The time and one half (1.5x) rate will be against the base wage rate, not the shift differential

(Local #46)

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## MILLWRIGHT

### Millwright

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$51.50**

Supplemental Benefit Rate per Hour: **\$52.41**

### Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
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Double time the regular rate for Sunday.

Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

### Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day  
President's Day  
Good Friday  
Memorial Day  
Independence Day  
Labor Day  
Columbus Day  
Presidential Election Day  
Thanksgiving Day  
Christmas Day

### Paid Holidays

1/2 day on Christmas Eve if work is performed in the A.M.  
1/2 day on New Year's Eve if work is performed in the A.M.

### Shift Rates

The first shift shall receive the straight time rate of pay. The second shift receives the straight time rate of pay plus fifteen (15%) per cent. Members of the second shift shall be allowed one half hour to eat, with this time being included in the hours of the workday established. There must be a first shift to work a second shift. All additional hours worked shall be paid at the time and one-half rate of pay plus fifteen (15%) per cent for weekday hours.

(Local #740)

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## MOSAIC MECHANIC

### Mosaic Mechanic - Mosaic & Terrazzo Mechanic

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$46.86

Supplemental Benefit Rate per Hour: \$40.65

Supplemental Note: Supplemental benefits for overtime to be paid at the rate of \$51.67 per hour.

### Mosaic Mechanic - Mosaic & Terrazzo Finisher

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$45.26

Supplemental Benefit Rate per Hour: \$40.63

Supplemental Note: Supplemental benefits for overtime to be paid at the rate of \$51.65 per hour.



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**Mosaic Mechanic - Machine Operator Grinder**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$45.26**

Supplemental Benefit Rate per Hour: **\$40.63**

Supplemental Note: Supplemental benefits for overtime to be paid at the rate of \$51.65 per hour.

**Overtime**

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

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

**Overtime Holidays**

Double time the regular rate for work on the following holiday(s).

New Year's Day

Washington's Birthday

Good Friday

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

**Paid Holidays**

None

(Local #7)

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**PAINTER**

**Painter - Brush & Roller**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$42.50**

Supplemental Benefit Rate per Hour: **\$28.62**

Supplemental Note: \$ 33.25 on overtime

**Spray & Scaffold / Decorative / Sandblast**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$45.50**

Supplemental Benefit Rate per Hour: **\$28.62**

Supplemental Note: \$ 33.25 on overtime

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**Overtime**

Time and one half the regular rate after a 7 hour day.  
Time and one half the regular rate for Saturday.  
Time and one half the regular rate for Sunday.

**Overtime Holidays**

Time and one half the regular rate for work on the following holiday(s).

New Year's Day  
President's Day  
Memorial Day  
Independence Day  
Labor Day  
Columbus Day  
Thanksgiving Day  
Christmas Day

**Paid Holidays**

None

(District Council of Painters #9)

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**PAINTER - METAL POLISHER**

**METAL POLISHER**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: \$29.73  
Supplemental Benefit Rate per Hour: \$7.06

**METAL POLISHER - NEW CONSTRUCTION**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: \$30.68  
Supplemental Benefit Rate per Hour: \$7.06

**METAL POLISHER - SCAFFOLD OVER 34 FEET**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: \$33.23  
Supplemental Benefit Rate per Hour: \$7.06

**Overtime Description**

All work performed on Saturdays shall be paid at time-in-a half. The exception being; for suspended scaffold work and work deemed as a construction project; an eight (8) hour shift lost during the week due to

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
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circumstances beyond the control of the employer, up to a maximum of eight (8) hours per week, may be worked on Saturday at the straight time rate.

### **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.

Triple time the regular rate for work on the following holiday(s).

### **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**

Four Days a week at Ten (10) hours straight a day.

Local 8A-28A

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## **PAINTER - STRIPER**

### **Striper (paint)**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$35.00**

Supplemental Benefit Rate per Hour: **\$12.37**

Supplemental Note: Overtime Supplemental Benefit rate - \$8.02; New Hire Rate (0-3 months) - \$0.00

### **Lineperson (thermoplastic)**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$39.00**

Supplemental Benefit Rate per Hour: **\$12.37**

Supplemental Note: Overtime Supplemental Benefit rate - \$8.02; New Hire Rate (0-3 months) - \$0.00

### **Overtime**

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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)

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**PAINTER - STRUCTURAL STEEL**

**Painters on Structural Steel**

Effective Period: 7/1/2017 - 9/30/2017  
Wage Rate per Hour: \$49.50  
Supplemental Benefit Rate per Hour: \$37.08

Effective Period: 10/1/2017 - 6/30/2018  
Wage Rate per Hour: \$50.00  
Supplemental Benefit Rate per Hour: \$38.33

**Painter - Power Tool**

Effective Period: 7/1/2017 - 9/30/2017  
Wage Rate per Hour: \$55.50

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
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Supplemental Benefit Rate per Hour: **\$37.08**

Overtime Wage Rate: \$6.00 above the "Painters on Structural Steel" overtime rate.

Effective Period: 10/1/2017 - 6/30/2018

Wage Rate per Hour: **\$56.00**

Supplemental Benefit Rate per Hour: **\$38.33**

Overtime Wage Rate: \$6.00 above the "Painters on Structural Steel" overtime rate.

### 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)

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## PAPERHANGER

### Paperhanger

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$44.89**

Supplemental Benefit Rate per Hour: **\$31.13**

Supplemental Note: Supplemental benefits are to be paid at the appropriate straight time and overtime rate.

### Overtime

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

Time and one half the regular rate for Saturday.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
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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)

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## **PAVER AND ROADBUILDER**

### **Paver & Roadbuilder - Formsetter**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$45.85

Supplemental Benefit Rate per Hour: \$40.98

### **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: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$41.98

Supplemental Benefit Rate per Hour: \$40.98

### **Production Paver & Roadbuilder - Screed Person**

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
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(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: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$46.45

Supplemental Benefit Rate per Hour: \$40.98

### Production Paver & Roadbuilder - Raker

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$45.85

Supplemental Benefit Rate per Hour: \$40.98

### 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: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$42.37

Supplemental Benefit Rate per Hour: \$40.98

### **Overtime Description**

If an employee works New Year's Day or Christmas Day, they receive the single time rate plus 25%.

### **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).

Memorial Day

Independence Day

Labor Day

Columbus Day

Thanksgiving Day

### **Shift Rates**

When two shifts are employed, the work period for each shift shall be a continuous eight (8) hours. When three shifts are employed, each shift will work seven and one half (7 ½) hours but will be paid for eight (8) hours since only one half (1/2) hour is allowed for meal time.

When two or more shifts are employed, single time will be paid for each shift.

Night Work - On night work, the first eight (8) hours of work will be paid for at the single time rate, except that production paving work shall be paid at 10% over the single time rate for the screed person, rakers and shovelers directly involved only. This differential is to be paid when there is only one shift and the shift works at night. 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.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE

(Local #1010)

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## **PLASTERER**

### **Plasterer**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$44.93**

Supplemental Benefit Rate per Hour: **\$25.15**

### **Overtime**

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

### **Overtime Holidays**

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Memorial Day

Independence Day

Labor Day

Thanksgiving Day

Christmas Day

### **Paid Holidays**

None

### **Shift Rates**

When it is not possible to conduct alteration work during regular work hours, in a building occupied by tenants, said work shall proceed on a shift basis: however work over seven (7) hours in any twenty four (24) hour period, the time after seven (7) hours shall be considered overtime.

The second shift shall start at a time between 3:30 p.m. and 7:00 p.m. and shall consist of seven (7) working hours and shall receive eight (8) hours of wages and benefits at the straight time rate. The workers on the second shift shall be allowed one-half (½) hour to eat with this time being included in the seven (7) hours of work.

(Local #262)

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OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
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## **PLASTERER - TENDER**

### **Plasterer - Tender**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$37.90**

Supplemental Benefit Rate per Hour: **\$30.59**

### **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)

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## **PLUMBER**

### **Plumber**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$67.25**

Supplemental Benefit Rate per Hour: **\$31.80**

Supplemental Note: Supplemental benefit contributions are to be made at the applicable overtime rates.

### **Plumber - Temporary Services**

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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: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$53.88

Supplemental Benefit Rate per Hour: \$25.36

### 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)

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## PLUMBER (MECHANICAL EQUIPMENT AND SERVICE)

(Mechanical Equipment and Service work shall include any repair and/or replacement of the present plumbing system.)

### Plumber

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
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Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$41.20**

Supplemental Benefit Rate per Hour: **\$15.41**

**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)

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**PLUMBER (RESIDENTIAL RATES FOR 1, 2 AND 3 FAMILY HOME CONSTRUCTION)**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$46.66**

Supplemental Benefit Rate per Hour: **\$22.95**

**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

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
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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)

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**PLUMBER: PUMP & TANK**  
**Oil Trades (Installation and Maintenance)**

**Plumber - Pump & Tank**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: \$64.22  
Supplemental Benefit Rate per Hour: \$23.21

**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**

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
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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)

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**POINTER, WATERPROOFER, CAULKER, SANDBLASTER,  
STEAMBLASTER**  
(Exterior Building Renovation)

**Journey person**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$52.57**

Supplemental Benefit Rate per Hour: **\$25.80**

**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)

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OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE

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## ROOFER

### Roofer

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$41.50**

Supplemental Benefit Rate per Hour: **\$32.27**

### 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

Memorial Day

Independence Day

Labor 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)

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## SHEET METAL WORKER

### Sheet Metal Worker

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$48.90**

Supplemental Benefit Rate per Hour: **\$48.00**

Supplemental Note: Supplemental benefit contributions are to be made at the applicable overtime rates.

### Sheet Metal Worker - Fan Maintenance

(The temporary operation of fans or blowers in new or existing buildings for heating and/or ventilation, and/or air conditioning prior to the completion of the project.)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
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Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$39.12**

Supplemental Benefit Rate per Hour: **\$48.00**

**Sheet Metal Worker - Duct Cleaner**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$12.90**

Supplemental Benefit Rate per Hour: **\$8.07**

**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

Day after Thanksgiving

Christmas Day

**Paid Holidays**

None

**Shift Rates**

Work that can only be performed outside regular working hours (eight 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)

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**SHEET METAL WORKER - SPECIALTY  
(Decking & Siding)**

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE

**Sheet Metal Specialty Worker**

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: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$44.57**

Supplemental Benefit Rate per Hour: **\$25.02**

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)

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**SHIPYARD WORKER**

**Shipyard Mechanic - First Class**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$28.12**

Supplemental Benefit Rate per Hour: **\$3.03**

**Shipyard Mechanic - Second Class**

Effective Period: 7/1/2017 - 6/30/2018



OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE

Wage Rate per Hour: **\$23.35**  
Supplemental Benefit Rate per Hour: **\$2.85**

**Shipyard Laborer - First Class**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: **\$20.96**  
Supplemental Benefit Rate per Hour: **\$2.76**

**Shipyard Laborer - Second Class**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: **\$15.24**  
Supplemental Benefit Rate per Hour: **\$2.54**

**Shipyard Dockhand - First Class**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: **\$22.89**  
Supplemental Benefit Rate per Hour: **\$2.83**

**Shipyard Dockhand - Second Class**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: **\$16.51**  
Supplemental Benefit Rate per Hour: **\$2.58**

**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

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE

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**SIGN ERECTOR**  
(Sheet Metal, Plastic, Electric, and Neon)

**Sign Erector**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$47.67**

Supplemental Benefit Rate per Hour: **\$50.67**

**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)

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**STEAMFITTER**

**Steamfitter I**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$55.50**

Supplemental Benefit Rate per Hour: **\$55.29**

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE

Supplemental Note: Overtime supplemental benefit rate: \$109.84

### Steamfitter -Temporary Services

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: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$42.18**

Supplemental Benefit Rate per Hour: **\$44.84**

### **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.

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### 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: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$55.50**

Supplemental Benefit Rate per Hour: **\$55.29**

Supplemental Note: Overtime supplemental benefit rate: \$109.84

### Steamfitter -Temporary Services

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE

The steamfitters shall not do any other work and shall not be permitted to work more than one shift in a twenty-four hour day. When steamfitters are present during the regular working day, no temporary services steamfitter will be required.

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$42.18

Supplemental Benefit Rate per Hour: \$44.84

### 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

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## STEAMFITTER - REFRIGERATION AND AIR CONDITIONER (Maintenance and Installation Service Person)

### Refrigeration and Air Conditioner Mechanic

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: **\$39.50**  
Supplemental Benefit Rate per Hour: **\$15.81**

**Refrigeration and Air Conditioner Service Person V**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: **\$32.46**  
Supplemental Benefit Rate per Hour: **\$14.16**

**Refrigeration and Air Conditioner Service Person IV**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: **\$26.89**  
Supplemental Benefit Rate per Hour: **\$12.80**

**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: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: **\$23.08**  
Supplemental Benefit Rate per Hour: **\$11.79**

**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: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: **\$19.14**  
Supplemental Benefit Rate per Hour: **\$10.85**

**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: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: **\$14.00**  
Supplemental Benefit Rate per Hour: **\$9.76**

**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.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE

**Overtime Holidays**

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)

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**STONE MASON - SETTER**

**Stone Mason - Setter**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$53.62

Supplemental Benefit Rate per Hour: \$41.65

**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

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE

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.

**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)

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**TAPER**

**Drywall Taper**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$47.82**

Supplemental Benefit Rate per Hour: **\$22.68**

**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.

(Local #1974)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE

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**TELECOMMUNICATION WORKER**  
**(Voice Installation Only)**

**Telecommunication Worker**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$40.35**

Supplemental Benefit Rate per Hour: **\$13.19**

Supplemental Note: The above rate applies for Manhattan, Bronx, Brooklyn, Queens. \$12.64 for Staten Island only.

**Overtime**

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

Time and one half the regular rate for Saturday.

Time and one half the regular rate for Sunday.

**Overtime Holidays**

Time and one half the regular rate for work on the following holiday(s).

New Year's Day

Lincoln's Birthday

Washington's Birthday

Memorial Day

Independence Day

Labor Day

Columbus Day

Election Day

Veteran's Day

Thanksgiving Day

Christmas Day

**Paid Holidays**

New Year's Day

Lincoln's Birthday

Washington's Birthday

Memorial Day

Independence Day

Labor Day

Columbus Day

Election Day

Veteran's Day

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**



OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE

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.)

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**TILE FINISHER**

**Tile Finisher**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$41.13**

Supplemental Benefit Rate per Hour: **\$31.18**

**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 (1¼) times the regular straight time rate of pay for the seven hours of actual off-shift work.

(Local #7)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE

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## **TILE LAYER - SETTER**

### **Tile Layer - Setter**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$53.19**

Supplemental Benefit Rate per Hour: **\$35.35**

### **Overtime**

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

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

### **Overtime Holidays**

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Good Friday

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

### **Shift Rates**

Off shift work day (work performed outside the regular 8:00 A.M. to 3:30 P.M. workday): shift differential of one and one quarter (1¼) times the regular straight time rate of pay for the seven hours of actual off-shift work.

(Local #7)

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## **TIMBERPERSON**

### **Timberperson**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$48.00**

Supplemental Benefit Rate per Hour: **\$49.16**

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE

### Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

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)

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## TUNNEL WORKER

### Blasters, Mucking Machine Operators (Compressed Air Rates)

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$62.37**

Supplemental Benefit Rate per Hour: **\$52.39**

### Tunnel Workers (Compressed Air Rates)

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$60.21**

Supplemental Benefit Rate per Hour: **\$50.65**

### Top Nipper (Compressed Air Rates)

Effective Period: 7/1/2017 - 6/30/2018

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE

Wage Rate per Hour: \$59.11  
Supplemental Benefit Rate per Hour: \$49.74

**Outside Lock Tender, Outside Gauge Tender, Muck Lock Tender (Compressed Air Rates)**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: \$58.04  
Supplemental Benefit Rate per Hour: \$48.81

**Bottom Bell & Top Bell Signal Person: Shaft Person (Compressed Air Rates)**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: \$58.04  
Supplemental Benefit Rate per Hour: \$48.81

**Changehouse Attendant: Powder Watchperson (Compressed Air Rates)**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: \$50.87  
Supplemental Benefit Rate per Hour: \$46.11

**Blasters (Free Air Rates)**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: \$59.52  
Supplemental Benefit Rate per Hour: \$50.03

**Tunnel Workers (Free Air Rates)**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: \$56.97  
Supplemental Benefit Rate per Hour: \$47.89

**All Others (Free Air Rates)**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: \$52.63  
Supplemental Benefit Rate per Hour: \$44.29

**Microtunneling (Free Air Rates)**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: \$45.58  
Supplemental Benefit Rate per Hour: \$38.31

**Overtime Description**

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 PREVAILING WAGE SCHEDULE

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)

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**WELDER**

**TO BE PAID AT THE RATE OF THE JOURNEYPERSON IN THE TRADE  
PERFORMING THE WORK.**

**OFFICE OF THE COMPTROLLER**

**CITY OF NEW YORK**

**220 APPRENTICESHIP PREVAILING WAGE SCHEDULE**

**APPENDIX**

Pursuant to Labor Law §220 (3-e), only apprentices who are individually registered in a bona fide program to which the employer contractor is a participant and registered with the New York State Department of Labor, may be employed on a public work project.

Any employee listed on a payroll at an apprentice wage rate, who is not registered as above, shall be paid the journey person wage rate for the classification of work he actually performed.

Apprentice ratios are established to ensure the proper safety, training and supervision of apprentices. A ratio establishes the number of journey workers required for each apprentice in a program and on a job site. Ratios are interpreted as follows: in the case of a 1:1, 1:4 ratio, there must be one journey worker for the first apprentice, and four additional journey workers for each subsequent apprentice.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

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OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

**ASBESTOS HANDLER**

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

**Asbestos Handler (First 1000 Hours)**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 78% of Journeyperson's rate  
Supplemental Benefit Rate Per Hour: \$14.25

**Asbestos Handler (Second 1000 Hours)**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 80% of Journeyperson's rate  
Supplemental Benefit Rate Per Hour: \$14.25

**Asbestos Handler (Third 1000 Hours)**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 83% of Journeyperson's rate  
Supplemental Benefit Rate Per Hour: \$14.25

**Asbestos Handler (Fourth 1000 Hours)**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 89% of Journeyperson's rate  
Supplemental Benefit Rate Per Hour: \$14.25

(Local #78)

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**BOILERMAKER**

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

**Boilermaker (First Year)**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 65% of Journeyperson's rate  
Supplemental Benefit Rate Per Hour: \$30.84  
Effective 1/1/2018 - Supplemental Benefit Rate Per Hour: \$31.26

**Boilermaker (Second Year: 1st Six Months)**

Effective Period: 7/1/2017 - 6/30/2018



OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Wage Rate Per Hour: 70% of Journeyperson's rate  
Supplemental Benefit Rate Per Hour: \$32.57  
Effective 1/1/2018 - Supplemental Benefit Rate Per Hour: \$33.02

**Boilermaker (Second Year: 2nd Six Months)**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 75% of Journeyperson's rate  
Supplemental Benefit Rate Per Hour: \$34.29  
Effective 1/1/2018 - Supplemental Benefit Rate Per Hour: \$34.78

**Boilermaker (Third Year: 1st Six Months)**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 80% of Journeyperson's rate  
Supplemental Benefit Rate Per Hour: \$36.03  
Effective 1/1/2018 - Supplemental Benefit Rate Per Hour: \$36.56

**Boilermaker (Third Year: 2nd Six Months)**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 85% of Journeyperson's rate  
Supplemental Benefit Rate Per Hour: \$37.76  
Effective 1/1/2018 - Supplemental Benefit Rate Per Hour: \$38.32

**Boilermaker (Fourth Year: 1st Six Months)**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 90% of Journeyperson's rate  
Supplemental Benefit Rate Per Hour: \$39.51  
Effective 1/1/2018 - Supplemental Benefit Rate Per Hour: \$40.09

**Boilermaker (Fourth Year: 2nd Six Months)**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 95% of Journeyperson's rate  
Supplemental Benefit Rate Per Hour: \$41.22  
Effective 1/1/2018 - Supplemental Benefit Rate Per Hour: \$41.84

(Local #5)

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**BRICKLAYER**

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

**Bricklayer (First 750 Hours)**

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
\$220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 50% of Journeyperson's rate  
Supplemental Benefit Rate Per Hour: \$18.80

**Bricklayer (Second 750 Hours)**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 60% of Journeyperson's rate  
Supplemental Benefit Rate Per Hour: \$18.80

**Bricklayer (Third 750 Hours)**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 70% of Journeyperson's rate  
Supplemental Benefit Rate Per Hour: \$18.80

**Bricklayer (Fourth 750 Hours)**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 80% of Journeyperson's rate  
Supplemental Benefit Rate Per Hour: \$18.80

**Bricklayer (Fifth 750 Hours)**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 90% of Journeyperson's rate  
Supplemental Benefit Rate Per Hour: \$18.80

**Bricklayer (Sixth 750 Hours)**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 95% of Journeyperson's rate  
Supplemental Benefit Rate Per Hour: \$18.80

(Bricklayer District Council)

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**CARPENTER**

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

**Carpenter (First Year)**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 40% of Journeyperson's rate  
Supplemental Benefit Rate Per Hour For Building Apprentice: \$31.34

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
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Supplemental Benefit Rate Per Hour For Heavy Apprentice: \$33.03

**Carpenter (Second Year)**

Effective Period: 7/1/2017 - 6/30/2018

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

Supplemental Benefit Rate Per Hour For Building Apprentice: \$31.34

Supplemental Benefit Rate Per Hour For Heavy Apprentice: \$33.03

**Carpenter (Third Year)**

Effective Period: 7/1/2017 - 6/30/2018

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

Supplemental Benefit Rate Per Hour For Building Apprentice: \$31.34

Supplemental Benefit Rate Per Hour For Heavy Apprentice: \$33.03

**Carpenter (Fourth Year)**

Effective Period: 7/1/2017 - 6/30/2018

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

Supplemental Benefit Rate Per Hour For Building Apprentice: \$31.34

Supplemental Benefit Rate Per Hour For Heavy Apprentice: \$33.03

(Carpenters District Council)

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**CARPENTER - HIGH RISE CONCRETE FORMS**

(Ratio of Apprentice to Journeyperson: 1 to 1, 2 to 5)

**Carpenter - High Rise (First Year)**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$16.86

Supplemental Benefit Rate per Hour: \$16.20

**Carpenter - High Rise (Second Year)**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$23.16

Supplemental Benefit Rate per Hour: \$16.33

**Carpenter - High Rise (Third Year)**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$29.61

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Supplemental Benefit Rate per Hour: \$16.46

**Carpenter - High Rise (Fourth Year)**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$37.07

Supplemental Benefit Rate per Hour: \$16.61

(Carpenters District Council)

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**CEMENT MASON**

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

**Cement Mason (First Year)**

Effective Period: 7/1/2017 - 6/30/2018

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

**Cement Mason (Second Year)**

Effective Period: 7/1/2017 - 6/30/2018

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

**Cement Mason (Third Year)**

Effective Period: 7/1/2017 - 6/30/2018

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

(Local #780)

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**CEMENT AND CONCRETE WORKER**

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

**Cement & Concrete Worker (First 1333 hours)**

Effective Period: 7/1/2017 - 6/30/2018

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

Supplemental Benefit Rate Per Hour: \$17.75

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**Cement & Concrete Worker (Second 1333 hours)**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 65% of Journeyperson's rate  
Supplemental Benefit Rate Per Hour: \$23.03

**Cement & Concrete Worker (Last 1334 hours)**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 80% of Journeyperson's rate  
Supplemental Benefit Rate Per Hour: \$24.30

**Cement & Concrete Worker (Hired after 2/6/2016 - First 1334 hours)**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: \$16.96  
Supplemental Benefit Rate Per Hour: \$11.80

**Cement & Concrete Worker (Hired after 2/6/2016 - Second 1334 hours)**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: \$22.08  
Supplemental Benefit Rate Per Hour: \$16.49

**Cement & Concrete Worker (Hired after 2/6/2016 - Last 1334 hours)**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: \$27.20  
Supplemental Benefit Rate Per Hour: \$17.33

(Cement Concrete Workers District Council)

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**DERRICKPERSON & RIGGER (STONE)**  
(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 4)

**Derrickperson & Rigger (stone) - First Year**

Effective Period: 7/1/2017 - 6/30/2018  
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: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 70% of Journeyperson's rate

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

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

Effective Period: 7/1/2017 - 6/30/2018

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: 7/1/2017 - 6/30/2018

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

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

(Local #197)

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**DOCKBUILDER/PILE DRIVER**

(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 6)

**Dockbuilder/Pile Driver (First Year)**

Effective Period: 7/1/2017 - 6/30/2018

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

Supplemental Benefit Rate Per Hour: \$33.03

**Dockbuilder/Pile Driver (Second Year)**

Effective Period: 7/1/2017 - 6/30/2018

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

Supplemental Benefit Rate Per Hour: \$33.03

**Dockbuilder/Pile Driver (Third Year)**

Effective Period: 7/1/2017 - 6/30/2018

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

Supplemental Benefit Rate Per Hour: \$33.03

**Dockbuilder/Pile Driver (Fourth Year)**

Effective Period: 7/1/2017 - 6/30/2018

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

Supplemental Benefit Rate Per Hour: \$33.03

(Carpenters District Council)

## **ELECTRICIAN**

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

### **Electrician (First Term: 0-6 Months)**

Effective Period: 7/1/2017 - 5/9/2018

Wage Rate per Hour: **\$14.00**

Supplemental Benefit Rate per Hour: **\$12.37**

Overtime Supplemental Rate Per Hour: **\$13.29**

Effective Period: 5/10/2018 - 6/30/2018

Wage Rate per Hour: **\$14.50**

Supplemental Benefit Rate per Hour: **\$12.63**

Overtime Supplemental Rate Per Hour: **\$13.58**

### **Electrician (First Term: 7-12 Months)**

Effective Period: 7/1/2017 - 5/9/2018

Wage Rate per Hour: **\$15.00**

Supplemental Benefit Rate per Hour: **\$12.88**

Overtime Supplemental Rate Per Hour: **\$13.87**

Effective Period: 5/10/2018 - 6/30/2018

Wage Rate per Hour: **\$15.50**

Supplemental Benefit Rate per Hour: **\$13.14**

Overtime Supplemental Rate Per Hour: **\$14.16**

### **Electrician (Second Term: 0-6 Months)**

Effective Period: 7/1/2017 - 5/9/2018

Wage Rate per Hour: **\$16.00**

Supplemental Benefit Rate per Hour: **\$13.39**

Overtime Supplemental Rate Per Hour: **\$14.44**

Effective Period: 5/10/2018 - 6/30/2018

Wage Rate per Hour: **\$16.50**

Supplemental Benefit Rate per Hour: **\$13.64**

Overtime Supplemental Rate Per Hour: **\$14.73**

### **Electrician (Second Term: 7-12 Months)**

Effective Period: 7/1/2017 - 5/9/2018

Wage Rate per Hour: **\$17.00**

Supplemental Benefit Rate per Hour: **\$13.90**

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Overtime Supplemental Rate Per Hour: \$15.02

Effective Period: 5/10/2018 - 6/30/2018

Wage Rate per Hour: \$17.50

Supplemental Benefit Rate per Hour: \$14.15

Overtime Supplemental Rate Per Hour: \$15.31

**Electrician (Third Term: 0-6 Months)**

Effective Period: 7/1/2017 - 5/9/2018

Wage Rate per Hour: \$18.00

Supplemental Benefit Rate per Hour: \$14.41

Overtime Supplemental Rate Per Hour: \$15.59

Effective Period: 5/10/2018 - 6/30/2018

Wage Rate per Hour: \$18.50

Supplemental Benefit Rate per Hour: \$14.66

Overtime Supplemental Rate Per Hour: \$15.88

**Electrician (Third Term: 7-12 Months)**

Effective Period: 7/1/2017 - 5/9/2018

Wage Rate per Hour: \$19.00

Supplemental Benefit Rate per Hour: \$14.92

Overtime Supplemental Rate Per Hour: \$16.17

Effective Period: 5/10/2018 - 6/30/2018

Wage Rate per Hour: \$19.50

Supplemental Benefit Rate per Hour: \$15.17

Overtime Supplemental Rate Per Hour: \$16.45

**Electrician (Fourth Term: 0-6 Months)**

Effective Period: 7/1/2017 - 5/9/2018

Wage Rate per Hour: \$20.00

Supplemental Benefit Rate per Hour: \$15.43

Overtime Supplemental Rate Per Hour: \$16.74

Effective Period: 5/10/2018 - 6/30/2018

Wage Rate per Hour: \$20.50

Supplemental Benefit Rate per Hour: \$15.68

Overtime Supplemental Rate Per Hour: \$17.03

**Electrician (Fourth Term: 7-12 Months)**

Effective Period: 7/1/2017 - 5/9/2018

Wage Rate per Hour: \$22.00

Supplemental Benefit Rate per Hour: \$16.44

Overtime Supplemental Rate Per Hour: \$17.89



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Effective Period: 5/10/2018 - 6/30/2018  
Wage Rate per Hour: **\$22.50**  
Supplemental Benefit Rate per Hour: **\$16.70**  
Overtime Supplemental Rate Per Hour: **\$18.18**

**Electrician (Fifth Term: 0-12 Months)**

Effective Period: 7/1/2017 - 5/9/2018  
Wage Rate per Hour: **\$24.00**  
Supplemental Benefit Rate per Hour: **\$19.80**  
Overtime Supplemental Rate Per Hour: **\$21.30**

Effective Period: 5/10/2018 - 6/30/2018  
Wage Rate per Hour: **\$24.50**  
Supplemental Benefit Rate per Hour: **\$20.30**  
Overtime Supplemental Rate Per Hour: **\$21.84**

**Electrician (Fifth Term: 13-18 Months)**

Effective Period: 7/1/2017 - 5/9/2018  
Wage Rate per Hour: **\$28.50**  
Supplemental Benefit Rate per Hour: **\$22.10**  
Overtime Supplemental Rate Per Hour: **\$23.89**

Effective Period: 5/10/2018 - 6/30/2018  
Wage Rate per Hour: **\$29.00**  
Supplemental Benefit Rate per Hour: **\$22.65**  
Overtime Supplemental Rate Per Hour: **\$24.47**

**Overtime Description**

Overtime Wage paid at time and one half the regular rate

(Local #3)

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**ELEVATOR CONSTRUCTOR**

**(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 2)**

**Elevator (Constructor) - First Year**

Effective Period: 7/1/2017 - 3/16/2018  
Wage Rate Per Hour: 50% of Journeyman's rate  
Supplemental Rate Per Hour: **\$29.88**

Effective Period: 3/17/2018 - 6/30/2018

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Wage Rate Per Hour: 50% of Journeyperson's rate  
Supplemental Rate Per Hour: \$31.35

**Elevator (Constructor) - Second Year**

Effective Period: 7/1/2017 - 3/16/2018  
Wage Rate Per Hour: 55% of Journeyperson's rate  
Supplemental Rate Per Hour: \$30.31

Effective Period: 3/17/2018 - 6/30/2018  
Wage Rate Per Hour: 55% of Journeyperson's rate  
Supplemental Rate Per Hour: \$31.80

**Elevator (Constructor) - Third Year**

Effective Period: 7/1/2017 - 3/16/2018  
Wage Rate Per Hour: 65% of Journeyperson's rate  
Supplemental Rate Per Hour: \$31.19

Effective Period: 3/17/2018 - 6/30/2018  
Wage Rate Per Hour: 65% of Journeyperson's rate  
Supplemental Rate Per Hour: \$32.70

**Elevator (Constructor) - Fourth Year**

Effective Period: 7/1/2017 - 3/16/2018  
Wage Rate Per Hour: 75% of Journeyperson's rate  
Supplemental Rate Per Hour: \$32.07

Effective Period: 3/17/2018 - 6/30/2018  
Wage Rate Per Hour: 75% of Journeyperson's rate  
Supplemental Rate Per Hour: \$33.60

(Local #1)

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**ELEVATOR REPAIR & MAINTENANCE**  
**(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 2)**

**Elevator Service/Modernization Mechanic (First Year)**

Effective Period: 7/1/2017 - 3/16/2018  
Wage Rate Per Hour: 50% of Journeyperson's rate  
Supplemental Benefit Per Hour: \$29.80

Effective Period: 3/17/2018 - 6/30/2018  
Wage Rate Per Hour: 50% of Journeyperson's rate

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Supplemental Benefit Per Hour: \$31.28

**Elevator Service/Modernization Mechanic (Second Year)**

Effective Period: 7/1/2017 - 3/16/2018

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

Supplemental Benefit Per Hour: \$30.23

Effective Period: 3/17/2018 - 6/30/2018

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

Supplemental Benefit Per Hour: \$31.72

**Elevator Service/Modernization Mechanic (Third Year)**

Effective Period: 7/1/2017 - 3/16/2018

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

Supplemental Benefit Per Hour: \$31.09

Effective Period: 3/17/2018 - 6/30/2018

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

Supplemental Benefit Per Hour: \$32.60

**Elevator Service/Modernization Mechanic (Fourth Year)**

Effective Period: 7/1/2017 - 3/16/2018

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

Supplemental Benefit Per Hour: \$31.95

Effective Period: 3/17/2018 - 6/30/2018

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

Supplemental Benefit Per Hour: \$33.49

(Local #1)

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**ENGINEER**

(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 5)

**Engineer - First Year**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$24.77

Supplemental Benefit Rate per Hour: \$24.62

**Engineer - Second Year**

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Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: \$30.97  
Supplemental Benefit Rate per Hour: \$24.62

**Engineer - Third Year**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: \$34.06  
Supplemental Benefit Rate per Hour: \$24.62

**Engineer - Fourth Year**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: \$37.16  
Supplemental Benefit Rate per Hour: \$24.62

(Local #15)

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**ENGINEER - OPERATING**  
(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 5)

**Operating Engineer - First Year**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour 40% of Journeyperson's Rate  
Supplemental Benefit Per Hour: \$20.85

**Operating Engineer - Second Year**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 50% of Journeyperson's Rate  
Supplemental Benefit Per Hour: \$20.85

**Operating Engineer - Third Year**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 60% of Journeyperson's Rate  
Supplemental Benefit Per Hour: \$20.85

(Local #14)

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OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

## **FLOOR COVERER**

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

### **Floor Coverer (First Year)**

Effective Period: 7/1/2017 - 6/30/2018

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

Supplemental Rate Per Hour: \$31.14

### **Floor Coverer (Second Year)**

Effective Period: 7/1/2017 - 6/30/2018

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

Supplemental Rate Per Hour: \$31.14

### **Floor Coverer (Third Year)**

Effective Period: 7/1/2017 - 6/30/2018

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

Supplemental Rate Per Hour: \$31.14

### **Floor Coverer (Fourth Year)**

Effective Period: 7/1/2017 - 6/30/2018

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

Supplemental Rate Per Hour: \$31.14

(Carpenters District Council)

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## **GLAZIER**

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

### **Glazier (First Year)**

Effective Period: 7/1/2017 - 6/30/2018

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

Supplemental Rate Per Hour: \$15.26

### **Glazier (Second Year)**

Effective Period: 7/1/2017 - 6/30/2018

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

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Supplemental Rate Per Hour: \$25.36

**Glazier (Third Year)**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 60% of Journeyperson's rate  
Supplemental Rate Per Hour: \$28.62

**Glazier (Fourth Year)**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 80% of Journeyperson's rate  
Supplemental Rate Per Hour: \$34.67

(Local #1281)

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**HEAT & FROST INSULATOR**  
**(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 3)**

**Heat & Frost Insulator (First Year)**

Effective Period: 7/1/2017 - 6/30/2018  
Wage and Supplemental Rate Per Hour: 40% of Journeyperson's rate

**Heat & Frost Insulator (Second Year)**

Effective Period: 7/1/2017 - 6/30/2018  
Wage and Supplemental Rate Per Hour: 60% of Journeyperson's rate

**Heat & Frost Insulator (Third Year)**

Effective Period: 7/1/2017 - 6/30/2018  
Wage and Supplemental Rate Per Hour: 70% of Journeyperson's rate

**Heat & Frost Insulator (Fourth Year)**

Effective Period: 7/1/2017 - 6/30/2018  
Wage and Supplemental Rate Per Hour: 80% of Journeyperson's rate

(Local #12)

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**HOUSE WRECKER  
(TOTAL DEMOLITION)  
(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 3)**

**House Wrecker - First Year**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: **\$21.17**  
Supplemental Benefit Rate per Hour: **\$18.54**

**House Wrecker - Second Year**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: **\$22.32**  
Supplemental Benefit Rate per Hour: **\$18.54**

**House Wrecker - Third Year**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: **\$23.97**  
Supplemental Benefit Rate per Hour: **\$18.54**

**House Wrecker - Fourth Year**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: **\$26.53**  
Supplemental Benefit Rate per Hour: **\$18.54**

(Mason Tenders District Council)

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**IRON WORKER - ORNAMENTAL  
(Ratio of Apprentice to Journeyperson: 1 to 1; 1 to 4)**

**Iron Worker (Ornamental) - 1st Ten Months**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 50% of Journeyperson's rate  
Supplemental Rate Per Hour: **\$39.40**

**Iron Worker (Ornamental) - 11 -16 Months**

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Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 55% of Journeyperson's rate  
Supplemental Rate Per Hour: \$40.62

**Iron Worker (Ornamental) - 17 - 22 Months**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 60% of Journeyperson's rate  
Supplemental Rate Per Hour: \$41.83

**Iron Worker (Ornamental) - 23 - 28 Months**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 70% of Journeyperson's rate  
Supplemental Rate Per Hour: \$44.27

**Iron Worker (Ornamental) - 29 - 36 Months**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 80% of Journeyperson's rate  
Supplemental Rate Per Hour: \$46.70

(Local #580)

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**IRON WORKER - STRUCTURAL**  
(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 6)

**Iron Worker (Structural) - 1st Six Months**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: \$26.12  
Supplemental Benefit Rate per Hour: \$50.22

**Iron Worker (Structural) - 7- 18 Months**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: \$26.72  
Supplemental Benefit Rate per Hour: \$50.22

**Iron Worker (Structural) - 19 - 36 months**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: \$27.32



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Supplemental Benefit Rate per Hour: \$50.22

(Local #40 and #361)

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**LABORER (FOUNDATION, CONCRETE, EXCAVATING, STREET PIPE  
LAYER & COMMON)**

(Ratio Apprentice to Journeyman: 1 to 1, 1 to 3)

**Laborer (Foundation, Concrete, Excavating, Street Pipe Layer & Common) - First  
1000 hours**

Effective Period: 7/1/2017 - 6/30/2018

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

Supplemental Rate Per Hour: \$40.63

**Laborer (Foundation, Concrete, Excavating, Street Pipe Layer & Common) -  
Second 1000 hours**

Effective Period: 7/1/2017 - 6/30/2018

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

Supplemental Rate Per Hour: \$40.63

**Laborer (Foundation, Concrete, Excavating, Street Pipe Layer & Common) -  
Third 1000 hours**

Effective Period: 7/1/2017 - 6/30/2018

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

Supplemental Rate Per Hour: \$40.63

**Laborer (Foundation, Concrete, Excavating, Street Pipe Layer & Common) -  
Fourth 1000 hours**

Effective Period: 7/1/2017 - 6/30/2018

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

Supplemental Rate Per Hour: \$40.63

(Local #731)

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## **MARBLE MECHANICS**

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

### **Cutters & Setters - First 750 Hours**

Effective Period: 7/1/2017 - 6/30/2018

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

NO BENEFITS PAID DURING THE FIRST TWO MONTHS (PROBATIONARY PERIOD)

### **Cutters & Setters - Second 750 Hours**

Effective Period: 7/1/2017 - 6/30/2018

Wage and Supplemental Rate Per Hour: 55% of Journeyman's rate

### **Cutters & Setters - Third 750 Hours**

Effective Period: 7/1/2017 - 6/30/2018

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

### **Cutters & Setters - Fourth 750 Hours**

Effective Period: 7/1/2017 - 6/30/2018

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

### **Cutters & Setters - Fifth 750 Hours**

Effective Period: 7/1/2017 - 6/30/2018

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

### **Cutters & Setters - Sixth 750 Hours**

Effective Period: 7/1/2017 - 6/30/2018

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

### **Polishers & Finishers - First 750 Hours**

Effective Period: 7/1/2017 - 6/30/2018

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

NO BENEFITS PAID DURING THE FIRST TWO MONTHS (PROBATIONARY PERIOD)

### **Polishers & Finishers - Second 750 Hours**

Effective Period: 7/1/2017 - 6/30/2018

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

### **Polishers & Finishers - Third 750 Hours**

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Effective Period: 7/1/2017 - 6/30/2018

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

**Polishers & Finishers - Fourth 750 Hours**

Effective Period: 7/1/2017 - 6/30/2018

Wage and Supplemental Rate Per Hour: 90% of Journeyman's rate

(Local #7)

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**MASON TENDER**

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

**Mason Tender - First Year**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$21.39

Supplemental Benefit Rate per Hour: \$19.65

**Mason Tender - Second Year**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$22.54

Supplemental Benefit Rate per Hour: \$19.65

**Mason Tender - Third Year**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$24.29

Supplemental Benefit Rate per Hour: \$19.70

**Mason Tender - Fourth Year**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$26.95

Supplemental Benefit Rate per Hour: \$19.70

(Local #79)

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OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

**METALLIC LATHER**

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

**Metallic Lather (First Year)**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$28.38**

Supplemental Benefit Rate per Hour: **\$10.96**

**Metallic Lather (Second Year)**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$32.38**

Supplemental Benefit Rate per Hour: **\$12.96**

**Metallic Lather (Third Year)**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$35.38**

Supplemental Benefit Rate per Hour: **\$17.12**

**Metallic Lather (Fourth Year)**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$37.38**

Supplemental Benefit Rate per Hour: **\$17.92**

(Local #46)

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**MILLWRIGHT**

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

**Millwright (First Year)**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$28.33**

Supplemental Benefit Rate per Hour: **\$34.28**

**Millwright (Second Year)**

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: \$33.48  
Supplemental Benefit Rate per Hour: \$37.88

**Millwright (Third Year)**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: \$38.63  
Supplemental Benefit Rate per Hour: \$42.13

**Millwright (Fourth Year)**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: \$48.93  
Supplemental Benefit Rate per Hour: \$48.69

(Local #740)

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**PAVER AND ROADBUILDER**

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

**Paver and Roadbuilder - First Year (Minimum 1000 hours)**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: \$27.86  
Supplemental Benefit Rate per Hour: \$19.25

**Paver and Roadbuilder - Second Year (Minimum 1000 hours)**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: \$29.50  
Supplemental Benefit Rate per Hour: \$19.25

(Local #1010)

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**PAINTER**

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

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

**Painter - Brush & Roller - First Year**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: \$17.00  
Supplemental Benefit Rate per Hour: \$13.42

**Painter - Brush & Roller - Second Year**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: \$21.25  
Supplemental Benefit Rate per Hour: \$17.43

**Painter - Brush & Roller - Third Year**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: \$25.50  
Supplemental Benefit Rate per Hour: \$20.50

**Painter - Brush & Roller - Fourth Year**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: \$34.00  
Supplemental Benefit Rate per Hour: \$26.20

(District Council of Painters)

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**PAINTER - METAL POLISHER**  
(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 3)

**Metal Polisher (First Year)**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: \$11.75  
Supplemental Benefit Rate per Hour: \$5.13

**Metal Polisher (Second Year)**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: \$13.00  
Supplemental Benefit Rate per Hour: \$5.13

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

**Metal Polisher (Third Year)**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: \$15.75  
Supplemental Benefit Rate per Hour: \$5.13

(Local 8A-28)

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**PAINTER - STRUCTURAL STEEL**  
(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 3)

**Painters - Structural Steel (First Year)**

Effective Period: 7/1/2017 - 6/30/2018  
Wage and Supplemental Rate Per Hour: 40% of Journeyman's rate

**Painters - Structural Steel (Second Year)**

Effective Period: 7/1/2017 - 6/30/2018  
Wage and Supplemental Rate Per Hour: 60% of Journeyman's rate

**Painters - Structural Steel (Third Year)**

Effective Period: 7/1/2017 - 6/30/2018  
Wage and Supplemental Rate Per Hour: 80% of Journeyman's rate

(Local #806)

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**PLASTERER**  
(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 3)

**Plasterer - First Year: 1st Six Months**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 40% of Journeyman's rate  
Supplemental Rate Per Hour: \$13.59

**Plasterer - First Year: 2nd Six Months**

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 45% of Journeyperson's rate  
Supplemental Rate Per Hour: \$14.07

**Plasterer - Second Year: 1st Six Months**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 55% of Journeyperson's rate  
Supplemental Rate Per Hour: \$16.04

**Plasterer - Second Year: 2nd Six Months**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 60% of Journeyperson's rate  
Supplemental Rate Per Hour: \$17.12

**Plasterer - Third Year: 1st Six Months**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 70% of Journeyperson's rate  
Supplemental Rate Per Hour: \$19.29

**Plasterer - Third Year: 2nd Six Months**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 75% of Journeyperson's rate  
Supplemental Rate Per Hour: \$20.37

(Local #530)

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**PLASTERER - TENDER**  
(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 3)

**Plasterer Tender - First Year**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: \$21.39  
Supplemental Benefit Rate per Hour: \$19.65

**Plasterer Tender - Second Year**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: \$22.54



OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Supplemental Benefit Rate per Hour: \$19.65

**Plasterer Tender - Third Year**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$24.29

Supplemental Benefit Rate per Hour: \$19.70

**Plasterer Tender - Fourth Year**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$26.95

Supplemental Benefit Rate per Hour: \$19.70

(Local #79)

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**PLUMBER**

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

**Plumber - First Year: 1st Six Months**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$16.28

Supplemental Benefit Rate per Hour: \$5.43

**Plumber - First Year: 2nd Six Months**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$19.28

Supplemental Benefit Rate per Hour: \$6.43

**Plumber - Second Year**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$26.35

Supplemental Benefit Rate per Hour: \$17.10

**Plumber - Third Year**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: \$28.45

Supplemental Benefit Rate per Hour: \$17.10

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

**Plumber - Fourth Year**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: **\$31.30**  
Supplemental Benefit Rate per Hour: **\$17.10**

**Plumber - Fifth Year: 1st Six Months**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: **\$32.70**  
Supplemental Benefit Rate per Hour: **\$17.10**

**Plumber - Fifth Year: 2nd Six Months**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: **\$44.77**  
Supplemental Benefit Rate per Hour: **\$17.10**

(Plumbers Local #1)

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**POINTER, WATERPROOFER, CAULKER, SANDBLASTER,  
STEAMBLASTER**

(Exterior Building Renovation)

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

**Pointer, Waterproofer, Caulker, Sandblaster, Steamblaster - First Year**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: **\$25.89**  
Supplemental Benefit Rate per Hour: **\$13.64**

**Pointer, Waterproofer, Caulker, Sandblaster, Steamblaster - Second Year**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: **\$28.97**  
Supplemental Benefit Rate per Hour: **\$18.15**

**Pointer, Waterproofer, Caulker, Sandblaster, Steamblaster - Third Year**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate per Hour: **\$34.12**  
Supplemental Benefit Rate per Hour: **\$20.90**

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

**Pointer, Waterproofer, Caulker, Sandblaster, Steamblaster - Fourth Year**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate per Hour: **\$41.33**

Supplemental Benefit Rate per Hour: **\$21.60**

(Bricklayer District Council)

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**ROOFER**

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 2)

**Roofer - First Year**

Effective Period: 7/1/2017 - 6/30/2018

Wage and Supplemental Rate Per Hour: 35% of Journeyman's Rate

**Roofer - Second Year**

Effective Period: 7/1/2017 - 6/30/2018

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

**Roofer - Third Year**

Effective Period: 7/1/2017 - 6/30/2018

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

**Roofer - Fourth Year**

Effective Period: 7/1/2017 - 6/30/2018

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

(Local #8)

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**SHEET METAL WORKER**

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

**Sheet Metal Worker (0-6 Months)**

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 25% of Journeyperson's rate  
Supplemental Rate Per Hour: \$6.35

**Sheet Metal Worker (7-18 Months)**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 35% of Journeyperson's rate  
Supplemental Rate Per Hour: \$17.12

**Sheet Metal Worker (19-30 Months)**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 45% of Journeyperson's rate  
Supplemental Rate Per Hour: \$23.54

**Sheet Metal Worker (31-36 Months)**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 55% of Journeyperson's rate  
Supplemental Rate Per Hour: \$27.70

**Sheet Metal Worker (37-42 Months)**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 60% of Journeyperson's rate  
Supplemental Rate Per Hour: \$29.11

**Sheet Metal Worker (43-48 Months)**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 70% of Journeyperson's rate  
Supplemental Rate Per Hour: \$33.96

**Sheet Metal Worker (49-54 Months)**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 75% of Journeyperson's rate  
Supplemental Rate Per Hour: \$36.07

**Sheet Metal Worker (55-60 Months)**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 80% of Journeyperson's rate  
Supplemental Rate Per Hour: \$38.15

(Local #28)

## **SIGN ERECTOR**

**(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 4)**

### **Sign Erector - First Year: 1st Six Months**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 35% of Journeyman's rate  
Supplemental Rate Per Hour: \$14.72

### **Sign Erector - First Year: 2nd Six Months**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 40% of Journeyman's rate  
Supplemental Rate Per Hour: \$16.71

### **Sign Erector - Second Year: 1st Six Months**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 45% of Journeyman's rate  
Supplemental Rate Per Hour: \$18.68

### **Sign Erector - Second Year: 2nd Six Months**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 50% of Journeyman's rate  
Supplemental Rate Per Hour: \$20.68

### **Sign Erector - Third Year: 1st Six Months**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 55% of Journeyman's rate  
Supplemental Rate Per Hour: \$27.72

### **Sign Erector - Third Year: 2nd Six Months**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 60% of Journeyman's rate  
Supplemental Rate Per Hour: \$30.57

### **Sign Erector - Fourth Year: 1st Six Months**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 65% of Journeyman's rate  
Supplemental Rate Per Hour: \$33.31

### **Sign Erector - Fourth Year: 2nd Six Months**

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 70% of Journeyperson's rate  
Supplemental Rate Per Hour: \$35.83

**Sign Erector - Fifth Year**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 75% of Journeyperson's rate  
Supplemental Rate Per Hour: \$38.32

**Sign Erector - Sixth Year**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 80% of Journeyperson's rate  
Supplemental Rate Per Hour: \$40.81

(Local #137)

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**STEAMFITTER**

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

**Steamfitter - First Year**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate and Supplemental Per Hour: 40% of Journeyperson's rate

**Steamfitter - Second Year**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate and Supplemental Rate Per Hour: 50% of Journeyperson's rate.

**Steamfitter - Third Year**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate and Supplemental Rate per Hour: 65% of Journeyperson's rate.

**Steamfitter - Fourth Year**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate and Supplemental Rate Per Hour: 80% of Journeyperson's rate.

**Steamfitter - Fifth Year**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate and Supplemental Rate Per Hour: 85% of Journeyperson's rate.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

(Local #638)

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**STONE MASON - SETTER**

(Ratio Apprentice of Journeyman: 1 to 1, 1 to 2)

**Stone Mason - Setters - First 750 Hours**

Effective Period: 7/1/2017 - 6/30/2018

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

**Stone Mason - Setters - Second 750 Hours**

Effective Period: 7/1/2017 - 6/30/2018

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

Supplemental Rate Per Hour: 50% of Journeyman's rate

**Stone Mason - Setters - Third 750 Hours**

Effective Period: 7/1/2017 - 6/30/2018

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

Supplemental Rate Per Hour: 50% of Journeyman's rate

**Stone Mason - Setters - Fourth 750 Hours**

Effective Period: 7/1/2017 - 6/30/2018

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

Supplemental Rate Per Hour: 50% of Journeyman's rate

**Stone Mason - Setters - Fifth 750 Hours**

Effective Period: 7/1/2017 - 6/30/2018

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

Supplemental Rate Per Hour: 50% of Journeyman's rate

**Stone Mason - Setters - Sixth 750 Hours**

Effective Period: 7/1/2017 - 6/30/2018

Wage Rate Per Hour: 100% of Journeyman's rate

Supplemental Rate Per Hour: 50% of Journeyman's rate

(Bricklayers District Council)

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## **TAPER**

**(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 4)**

### **Drywall Taper - First Year**

Effective Period: 7/1/2017 - 6/30/2018

Wage and Supplemental Rate Per Hour: 40% of Journeyman's rate

### **Drywall Taper - Second Year**

Effective Period: 7/1/2017 - 6/30/2018

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

### **Drywall Taper - Third Year**

Effective Period: 7/1/2017 - 6/30/2018

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

(Local #1974)

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## **TILE LAYER - SETTER**

**(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 4)**

### **Tile Layer - Setter - First 750 Hours**

Effective Period: 7/1/2017 - 6/30/2018

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

### **Tile Layer - Setter - Second 750 Hours**

Effective Period: 7/1/2017 - 6/30/2018

Wage and Supplemental Rate Per Hour: 55% of Journeyman's rate

### **Tile Layer - Setter - Third 750 Hours**

Effective Period: 7/1/2017 - 6/30/2018

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

### **Tile Layer - Setter - Fourth 750 Hours**



OFFICE OF THE COMPTROLLER, CITY OF NEW YORK  
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2017 - 6/30/2018  
Wage and Supplemental Rate Per Hour: 75% of Journeyperson's rate

**Tile Layer - Setter - Fifth 750 Hours**

Effective Period: 7/1/2017 - 6/30/2018  
Wage and Supplemental Rate Per Hour: 85% of Journeyperson's rate

**Tile Layer - Setter - Sixth 750 Hours**

Effective Period: 7/1/2017 - 6/30/2018  
Wage and Supplemental Rate Per Hour: 95% of Journeyperson's rate

(Local #7)

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**TIMBERPERSON**  
(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 6)

**Timberperson - First Year**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 40% of Journeyperson's rate  
Supplemental Rate Per Hour: \$32.79

**Timberperson - Second Year**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 50% of Journeyperson's rate  
Supplemental Rate Per Hour: \$32.79

**Timberperson - Third Year**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 65% of Journeyperson's rate  
Supplemental Rate Per Hour: \$32.79

**Timberperson - Fourth Year**

Effective Period: 7/1/2017 - 6/30/2018  
Wage Rate Per Hour: 80% of Journeyperson's rate  
Supplemental Rate Per Hour: \$32.79

(Local #1536)

(NO TEXT ON THIS PAGE)



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

Leonard A. Mancusi  
SENIOR ASSISTANT COMPTROLLER

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**

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**Department of  
Design and  
Construction**

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**INFRASTRUCTURE DIVISION  
BUREAU OF DESIGN**

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**VOLUME 2 OF 3**

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*Contractor*

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Dated \_\_\_\_\_, 20\_\_

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**APPROVED AS TO FORM  
CERTIFIED AS TO LEGAL AUTHORITY**

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*Acting Corporation Counsel*

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Dated \_\_\_\_\_, 20\_\_

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Department of Design and Construction

INFRASTRUCTURE DIVISION BUREAU OF DESIGN

VOLUME 2 OF 3

PROJECT ID: QED1023B

REPLACEMENT OF TRUNK AND DISTRIBUTION WATER MAIN IN CYPRESS AVENUE BETWEEN WILLOUGHBY AVENUE AND HIMROD STREET, ETC.

INCLUDING SEWER, STREET LIGHTING, TRAFFIC SIGNAL AND PRIVATE UTILITIES WORK

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

Halcyon Construction Corp.

Contractor

Dated June 15, 2018

APPROVED AS TO FORM CERTIFIED AS TO LEGAL AUTHORITY

[Signature]

Acting Corporation Counsel

Dated February 13, 2018

[Signature] 2/13/2018





**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](http://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: QED1023B**

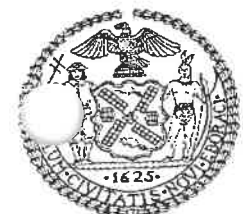
**REPLACEMENT OF TRUNK AND DISTRIBUTION WATER MAIN IN  
CYPRESS AVENUE BETWEEN WILLOUGHBY AVENUE AND  
HIMROD STREET, ETC.**

**INCLUDING SEWER, STREET LIGHTING, TRAFFIC SIGNAL AND  
PRIVATE UTILITIES WORK**

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

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

**December 20, 2017**



8-082

**VOLUME 3 OF 3**  
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R - PAGES	REVISIONS TO STANDARD SPECIFICATIONS	R-1 to R-2
SW - PAGES	SEWER AND WATER MAIN SPECIFICATIONS	SW-1 to SW-30
EP7 -- PAGES	GAS COST SHARING (EP-7) STANDARD SPECIFICATIONS	EP7-1 to EP7-28C
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Project ID: QED1023B

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## SPECIFICATIONS AND STANDARDS OF NEW YORK CITY

The following New York City Department of Transportation (NYCDOT) reference documents are available on-line at:

<http://www1.nyc.gov/site/ddc/resources/publications.page> or for purchase between 9:00 A.M. and 3:00 P.M. at 55 Water St., Ground Floor, NYC, N.Y. 10041. Contact: Ms. Vivian Valdez, Tel. (212) 839-9434

1. NYCDOT Standard Highway Specifications, August 1, 2015
2. NYCDOT Standard Highway Details of Construction, July 1, 2010

The following New York City Department of Transportation (NYCDOT) reference documents are available on-line at:

<http://www.nyc.gov/html/dot/html/about/dotlibrary.shtml#spec> or for purchase between 9:00 A.M. and 3:00 P.M. at 55 Water St., Ground Floor, NYC, N.Y. 10041. Contact: Ms. Vivian Valdez, Tel. (212) 839-9434

1. Specifications for furnishing all labor and material necessary and required for the installation, removal or relocation of street lighting equipment in the City of New York, 1992.
2. Standard Drawings, Division of Street Lighting
3. Specifications for Traffic Signals and Intelligent Transportation Systems Construction and Equipment
4. Standard Drawings for Traffic Signals

The following reference documents for New York City Department of Environmental Protection (NYCDEP) are available on-line at:

<http://www1.nyc.gov/site/ddc/resources/publications.page> 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. Nader Soliman, Tel. (718) 391-1179

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://www1.nyc.gov/site/ddc/resources/publications.page> 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, November 2010
2. Specifications for Trunk Main Work, July 2014
3. Standards for Green Infrastructure, latest version, available only on-line at:

[http://www.nyc.gov/html/dep/html/stormwater/green\\_infrastructure\\_standards.shtml](http://www.nyc.gov/html/dep/html/stormwater/green_infrastructure_standards.shtml)

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

SPECIFICATIONS AND STANDARDS OF NEW YORK CITY

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

**SCHEDULE A****(GENERAL CONDITIONS TO CONSTRUCTION CONTRACT  
(INCLUDING GENERAL CONDITIONS RELATED TO ARTICLE 22 – INSURANCE)****PART I. REQUIRED INFORMATION**

<p align="center"><b><u>INFORMATION FOR BIDDERS SECTION 26 BID SECURITY</u></b></p> <p>The <b>Contractor</b> shall obtain a bid security in the amount indicated to the right.</p>	<p>Required provided the TOTAL BID PRICE set forth on the Bid Form is \$1,000,000. or more.</p> <p>Certified Check: 2% of Bid Amount or Bond: 10% of Bid Amount</p>
<p align="center"><b><u>INFORMATION FOR BIDDERS SECTION 26 PERFORMANCE AND PAYMENT BONDS</u></b></p> <p>The <b>Contractor</b> shall obtain performance and payment bonds in the amount indicated to the right.</p>	<p>Required for contracts in the amount of \$1,000,000 or more.</p> <p>Performance Security and Payment Security shall each be in an amount equal to 100% of the Contract Price.</p>
<p align="center"><b><u>INFORMATION FOR BIDDERS DEPARTMENT OF DESIGN AND CONSTRUCTION SAFETY REQUIREMENTS</u></b></p> <p>The <b>Contractor</b> shall provide the safety personnel as indicated to the right.</p>	<ul style="list-style-type: none"> <li>■ Project Safety Representative</li> <li>■ Dedicated, full-time Project Safety Manager</li> </ul>
<p align="center"><b><u>CONTRACT ARTICLE 14 DATE FOR SUBSTANTIAL COMPLETION</u></b></p> <p>The <b>Contractor</b> shall substantially complete the <b>Work</b> in the number of calendar days indicated to the right.</p>	<p>See Page SA-4</p>
<p align="center"><b><u>CONTRACT ARTICLE 15 LIQUIDATED DAMAGES</u></b></p> <p>If the <b>Contractor</b> fails to substantially complete the <b>Work</b> within the time fixed for substantial completion plus authorized time extensions or if the <b>Contractor</b>, in the sole determination of the <b>Commissioner</b>, has abandoned the <b>Work</b>, the <b>Contractor</b> shall pay to the <b>City</b> the amount indicated to the right.</p>	<p>\$7,000.00 for each consecutive calendar day over substantial completion time</p>
<p align="center"><b><u>CONTRACT ARTICLE 17. SUB-CONTRACTOR</u></b></p> <p>The <b>Contractor</b> shall not make subcontracts totaling an amount more than the percentage of the total <b>Contract</b> price indicated to the right.</p>	<p>Not to exceed <u>35</u> % of the <b>Contract</b> price</p>

<p align="center"><b><u>CONTRACT ARTICLE 21.</u></b> <b><u>RETAINAGE</u></b></p> <p>The <b>Commissioner</b> shall deduct and retain until the substantial completion of the <b>Work</b> the percent value of the <b>Work</b> indicated to the right.</p>	<p><u>5 %</u> of the value of the <b>Work</b></p>
<p align="center"><b><u>CONTRACT ARTICLE 22.</u></b> <b><u>(Per Directions Below)</u></b></p>	<p>See pages SA-5 through SA-12</p>
<p align="center"><b><u>CONTRACT ARTICLE 24.</u></b> <b><u>DEPOSIT GUARANTEE</u></b></p> <p>As security for the faithful performance of its obligations, the <b>Contractor</b>, upon filing its requisition for payment on <b>Substantial Completion</b>, shall deposit with the <b>Commissioner</b> a sum equal to the percentage of the <b>Contract</b> price indicated to the right.</p>	<p>1% of <b>Contract</b> price</p>
<p align="center"><b><u>CONTRACT ARTICLE 24.</u></b> <b><u>PERIOD OF GUARANTEE</u></b></p> <p>Periods of maintenance and guarantee other than the period set forth in Article 24.1 are indicated to the right.</p>	<p>Eighteen (18) Months, excluding Trees</p> <p>Twenty-four (24) Months for Tree Planting</p>
<p align="center"><b><u>CONTRACT ARTICLE 74.</u></b> <b><u>STATEMENT OF WORK</u></b></p> <p>The <b>Contractor</b> shall furnish all labor and materials and perform all <b>Work</b> in strict accordance with the <b>Contract Drawings, Specifications</b>, and all <b>Addenda</b> thereto, as shown in the column to the right.</p>	<p><b>Addenda</b>, numbered:</p> <p align="center"><u>1</u></p>
<p align="center"><b><u>CONTRACT ARTICLE 75.</u></b> <b><u>COMPENSATION TO BE PAID TO CONTRACTOR</u></b></p> <p>The <b>City</b> shall pay and the <b>Contractor</b> shall accept in full consideration for the performance of the <b>Contract</b>, subject to additions and deductions as provided herein, the total sum <b>shown in the column to the right</b>, being the amount at which the <b>Contract</b> was awarded to the <b>Contractor</b> at a public letting thereof, based upon the <b>Contractor's</b> bid for the <b>Contract</b>.</p>	<p>Amount for which the <b>Contract</b> was Awarded:</p> <p><u>Forty-one million, seven hundred</u> <u>forty-five thousand</u> Dollars</p> <p>(\$ <u>41,745,000.00</u> )</p>
<p align="center"><b><u>CONTRACT ARTICLE 79.</u></b> <b><u>PARTICIPATION BY MINORITY-OWNED AND</u></b> <b><u>WOMEN-OWNED BUSINESS ENTERPRISES IN CITY</u></b> <b><u>PROCUREMENT</u></b></p>	<p>See M/WBE Utilization Plan in the Bid Booklet</p>

<p style="text-align: center;"><b><u>STANDARD HIGHWAY SPECIFICATIONS</u></b> <b><u>SECTION 6.40</u></b> <b><u>LIQUIDATED DAMAGES FOR ENGINEER'S FIELD OFFICE</u></b></p> <p>If the Contractor fails to satisfactorily provide the field office and all equipment specified in <b>Section 6.40 - Engineer's Field Office</b>, 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 <b>Section 6.40.5</b>, is not corrected.</p>	<p>\$ <u>250.00</u> for each calendar day of deficiency</p>
<p style="text-align: center;"><b><u>STANDARD HIGHWAY SPECIFICATIONS</u></b> <b><u>SECTION 6.70</u></b> <b><u>LIQUIDATED DAMAGES FOR MAINTENANCE AND PROTECTION OF TRAFFIC</u></b></p>	<p>\$ <u>250.00</u> 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.</p> <p>\$ <u>500.00</u> for each and every hour of failing to open the entire width of roadway to traffic the morning following a night/weekend work operation.</p>
<p style="text-align: center;"><b><u>STANDARD HIGHWAY SPECIFICATIONS</u></b> <b><u>SECTION 7.13</u></b> <b><u>LIQUIDATED DAMAGES FOR MAINTENANCE OF SITE</u></b></p> <p>If the Contractor fails to comply, within three (3) consecutive hours after written notice from the Engineer, with the requirements of <b>Section 7.13 - Maintenance of Site</b>, the Contractor shall pay to the City of New York, until such notice has been complied with or rescinded, the sum specified above per calendar day, for each instance of such failure, as liquidated damages and not as a penalty, for such default.</p>	<p>\$ <u>1400.00</u> for each calendar day, for each occurrence</p>



**Date for Substantial Completion (Reference: Article 14)**

The Contractor shall substantially complete the Work within the Final Contract Duration determined in accordance with the terms and conditions set forth herein.

The Base Contract Duration for this project is 1275 consecutive calendar days ("ccds").

The Final Contract Duration shall be the Base Contract Duration when a check mark is indicated before the word "NO", below, and shall be the Base Contract Duration adjusted by the table set forth below when a check mark is indicated before the word "YES", below.

YES  NO

When the Final Contract Duration is indicated above to be adjusted by the table below, the table may increase the Base Contract Duration depending on the date of scheduled substantial completion to avoid a scheduled substantial completion of the Work during the winter months. The date of 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 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 ccd 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**

**GENERAL CONDITIONS RELATING TO ARTICLE 22 - INSURANCE)**

**PART II. TYPES OF INSURANCE, MINIMUM LIMITS AND SPECIAL CONDITIONS**

**Note:** All certificate(s) of insurance submitted pursuant to Contract Article 22.3.3 must be accompanied by a Certification by Broker consistent with Part III below and include the following information:

- For each insurance policy, the name and NAIC number of issuing company, number of policy, and effective dates;
- Policy limits consistent with the requirements listed below;
- Additional insureds or loss payees consistent with the requirements listed below; and
- The number assigned to the Contract by the City (in the "Description of Operations" field).

Insurance indicated by a blackened box ( ■ ) or by an X in a box ( ☒ ) to left will be required under this

<p style="text-align: center;"><u>TYPES OF INSURANCE</u> (per Article 22 in its entirety, including listed paragraph)</p>	<p style="text-align: center;"><u>MINIMUM LIMITS AND SPECIAL CONDITIONS</u></p>
<p>■ Commercial General Liability                      Art. 22.1.1</p>	<p>The minimum limits shall be \$3,000,000 per Occurrence and \$6,000,000 per Project Aggregate applicable to this Contract.</p> <p>Additional Insureds:</p> <p>(1) 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.</p> <p>(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).</p> <p>(3) National Grid</p>

<p><input checked="" type="checkbox"/> Workers' Compensation Art. 22.1.2</p> <p><input checked="" type="checkbox"/> Disability Benefits Insurance Art. 22.1.2</p> <p><input checked="" type="checkbox"/> Employers' Liability Art. 22.1.2</p> <p><input type="checkbox"/> Jones Act Art. 22.1.3</p> <p><input type="checkbox"/> U.S. Longshoremen's and Harbor Workers Compensation Act Art. 22.1.3</p>	<p>Workers' Compensation, Employers' Liability, and Disability Benefits Insurance: Statutory per New York State law without regard to jurisdiction.</p> <p><b>Note:</b> The following forms are acceptable: (1) New York State Workers' Compensation Board Form No. C-105.2, (2) State Insurance Fund Form No. U-26.3, (3) New York State Workers' Compensation Board Form No. DB-120.1 and (4) Request for WC/DB Exemption Form No. CE-200. The City will not accept an ACORD form as proof of Workers' Compensation or Disability Insurance.</p> <p>Jones Act and U.S. Longshoremen's and Harbor Workers' Compensation Act: Statutory per U.S. Law.</p> <p><b>Additional Requirements:</b></p> <p>(1) NYCTA &amp; LIRR "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.</p> <p>(2) Two (2) certificates of such insurance (see pages SA-12 and SA-13) shall be furnished to the LIRR, Attention: MTA Risk and Insurance Management, Long Island Rail Road, 2 Broadway, New York, New York 10004.</p> <p>(3) 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</p>
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<p><input type="checkbox"/> Builders' Risk 22.1.4</p>	<p>Art.</p> <p><input type="checkbox"/> Required: 100% of total bid amount</p> <p><input type="checkbox"/> Required: 100 % of total bid amount for Item(s):</p> <p><b>Contractor</b> the Named Insured; the <b>City</b> both an Additional Insured and one of the loss payees as its interests may appear.</p> <p>If the <b>Work</b> does not involve construction of a new building or gut renovation work, the <b>Contractor</b> may provide an installation floater in lieu of Builders Risk insurance.</p> <p>Note: Builders Risk Insurance may terminate upon <b>Substantial Completion</b> of the <b>Work</b> in its entirety.</p>
<p><input checked="" type="checkbox"/> Commercial Auto Liability 22.1.5</p>	<p>Art.</p> <p>\$ <u>2,000,000</u> per accident combined single limit</p> <p>If vehicles are used for transporting hazardous materials, the <b>Contractor</b> shall provide pollution liability broadened coverage for covered vehicles (endorsement CA 99 48) as well as proof of MCS 90</p> <p>Additional Insureds:</p> <p>(1) City of New York, including its officials and employees.</p>
<p><input type="checkbox"/> Contractors Pollution Liability 22.1.6</p>	<p>Art.</p> <p>\$ <u>5,000,000</u> per occurrence \$ <u>5,000,000</u> aggregate</p> <p>Additional Insureds:</p> <ol style="list-style-type: none"> <li>1. City of New York, including its officials and employees, and</li> <li>2. _____</li> <li>3. _____</li> </ol>

<input type="checkbox"/> Marine Protection and Indemnity Art. 22.1.7(a)	<p>\$ _____ each occurrence          \$ _____ aggregate</p> <p>Additional Insureds:          1. City of New York, including its officials and employees, and          2. _____          3. _____</p>
<input type="checkbox"/> Hull and Machinery Insurance Art. 22.1.7(b)	<p>\$ _____ per occurrence          \$ _____ aggregate</p> <p>Additional Insureds:          1. City of New York, including its officials and employees, and          2. _____          3. _____</p>
<input type="checkbox"/> Marine Pollution Liability Art. 22.1.7(c)	<p>\$ <u>1,000,000</u> per occurrence          \$ <u>1,000,000</u> aggregate</p> <p>Additional Insureds:          1. City of New York, including its officials and employees, and          2. _____          3. _____</p>

[OTHER]

Art. 22.1.8

Railroad Protection Liability Policy

(ISO-RIMA or equivalent form) approved by Permitter covering the work to be performed at the designated site and affording protection for damages arising out of bodily injury or death, physical damage to or destruction of property, including damage to the Insured's own property and conforming to the following:

- Policy Endorsement CG 28 31 - Pollution Exclusion Amendment is required to be endorsed onto the policy when environmental-related work and/or exposures exist.
- Indicate the Name and address of the Contractor to perform the work, the Contract # 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 30 days of the Binder Approval.

\$ 2,000,000 per occurrence

\$ 6,000,000 annual aggregate

Named Insureds:

1. New York City Transit Authority (NYCTA), the Manhattan and Bronx Surface Transit Operation Authority (MaBSTOA), the Staten Island Rapid Transit Operation Authority (SIRTOA), MTA Capital Construction Co., the 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	<p><input type="checkbox"/> Professional Liability</p> <p>A. The Contractor's Professional Engineer shall maintain and submit evidence of Professional Liability Insurance in the minimum amount of \$1,000,000 per claim. The policy or policies shall include an endorsement to cover the liability assumed by the Contractor under this Contract arising out of the negligent performance of professional services or caused by an error, omission or negligent act of the Contractor's Professional Engineer or anyone employed by the Contractor's Professional Engineer.</p> <p>B. Claims-made policies will be accepted for Professional Liability Insurance. All such policies shall have an extended reporting period option or automatic coverage of not less than two (2) years. If available as an option, the Contractor's Professional Engineer shall purchase extended reporting period coverage effective on cancellation or termination of such insurance unless a new policy is secured with a retroactive date, including at least the last policy year.</p>
[OTHER]	Art. 22.1.8	<p><input checked="" type="checkbox"/> Engineer's Field Office</p> <p><b>Section 6.40, Standard Highway Specifications</b></p> <p>Fire insurance, extended coverage and vandalism, malicious mischief and burglary, and theft insurance coverage in the amount of <u>\$40,000</u></p>
[OTHER]	Art. 22.1.8	<p><input type="checkbox"/> The Following Additional Insurance Must Be Provided:</p> <p><b>Umbrella/Excess Liability Insurance</b> - 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.</p>

**SCHEDULE A**  
**(GENERAL CONDITIONS TO CONSTRUCTION CONTRACT)**  
**(GENERAL CONDITIONS RELATING TO ARTICLE 22 – INSURANCE)**

**PART III. CERTIFICATES OF INSURANCE**

All certificates of insurance (except certificates of insurance solely evidencing Workers' Compensation Insurance, Employer's Liability Insurance, and/or Disability Benefits Insurance) must be accompanied by one of the following:

- (1) the Certification by Insurance Broker or Agent on the following page setting forth the required information and signatures;

-- OR --

- (2) copies of all policies as certified by an authorized representative of the issuing insurance carrier that are referenced in such certificate of insurance. If any policy is not available at the time of submission, certified binders may be submitted until such time as the policy is available, at which time a certified copy of the policy shall be submitted.



CITY OF NEW YORK  
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)]

\_\_\_\_\_  
[Email address of broker or agent (typewritten)]

\_\_\_\_\_  
[Phone number/Fax number of broker or agent (typewritten)]

\_\_\_\_\_  
[Signature of authorized official, broker, or agent]

\_\_\_\_\_  
[Name and title of authorized official, broker, or agent (typewritten)]

State of .....)

) ss.:

County of .....)

Sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_

\_\_\_\_\_  
NOTARY PUBLIC FOR THE STATE OF \_\_\_\_\_

SCHEDULE A

(GENERAL CONDITIONS TO CONSTRUCTION CONTRACT)

PART IV. ADDRESS OF COMMISSIONER

Wherever reference is made in Article 7 or Article 22 to documents to be sent to the **Commissioner** (e.g., notices, filings, or submissions), such documents shall be sent to the address set forth below or, in the absence of such address, to the **Commissioner's** address as provided elsewhere in this **Contract**.

\_\_\_\_\_  
DDC Director, Insurance Risk Manager

\_\_\_\_\_  
30 – 30 Thomson Avenue, 4th Floor (IDCNY Building)

\_\_\_\_\_  
Long Island City, NY 11101

\_\_\_\_\_

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**REVISIONS TO STANDARD SPECIFICATIONS**

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**NOTICE**

The Specification Bulletin(s) ("SB(s)") referenced in this Section (R-Pages) may consist of revisions to the following Standard Specifications:

- New York City Department of Transportation ("NYC DOT") Standard Highway Specifications, dated 8/1/2015;
- New York City Department of Environmental Protection ("NYC DEP") Standard Sewer and Water Main Specifications, dated 7/1/2014; and
- NYC DEP Specifications for Trunk Main Work, dated 7/2014.

The SB(s) modify and supersede portions of the applicable Standard Specifications. The provisions contained in this Contract's I-Pages, S-Pages and SW-Pages may further modify the applicable Standard Specifications.

The following SB(s) apply to this contract:

- SB 16-001 – REVISIONS TO THE NYC DOT STANDARD HIGHWAY SPECIFICATIONS.
- SB 16-002 – REVISIONS TO THE NYC DEP STANDARD SEWER AND WATER MAIN SPECIFICATIONS.
- SB 17-001 – UV CURED-IN-PLACE-PIPE (CIPP) LINING METHOD
- SB 17-002 – RODENT AND WATERBUG PEST CONTROL
- SB 17-003 – ENGINEERS FIELD OFFICE
- SB 17-004 – FIRE DEPARTMENT FACILITIES
- SB 17-005 – DIGITAL PHOTOGRAPHS
- SB 17-006 – RECORDS OF SUBSURFACE STRUCTURES
- SB 17-007 – MOBILIZATION
- SB 17-008 – QUALIFICATION CARDS
- SB 17-009 – SALVAGEABLE MATERIALS
- SB 17-010 – MILLED ASPHALTIC CONCRETE AGGREGATE
- SB 17-011 – DETECTABLE WARNING UNIT COLOR

- SB 17-012 – TEMPORARY HOUSE CONNECTION MATERIAL

The SB(s) are available online at:

<http://www1.nyc.gov/site/ddc/resources/specification-bulletins.page> or for pickup between 8:00 AM and 4:00 PM at 30-30 Thomson Avenue, 3<sup>rd</sup> Floor, Division of Infrastructure, Long Island City, NY 11101. Contacts:

- Mr. Richard Jones, (718) 391-1417
- Mr. Salman Macktoom, (718) 391-2041

**(NO FURTHER TEXT THIS PAGE)**

**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. REVISIONS TO THE STANDARD HIGHWAY SPECIFICATIONS
- C. REVISIONS TO THE STANDARD SEWER AND WATER MAIN SPECIFICATIONS
- D. REVISIONS TO THE SPECIFICATIONS FOR TRUNK MAIN WORK

(NO TEXT ON THIS PAGE)

**A. NOTICE TO BIDDERS**

- (1) 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.
- (2) 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.
- (3) 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.
- (4) 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.
- (5) 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.
- (6) 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.
- (7) 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.
- (8) 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 1<sup>st</sup>, April 1<sup>st</sup>, July 1<sup>st</sup> and September 1<sup>st</sup>) 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.
- (9) 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 (212) 839-3799.

- (10) 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 except for the streets specified in the Specific Pavement Restoration Provisions.
- (11) The Contractor is notified that as part of this contract a "Cathodic Protection (CP) System Survey and Engineering Study of Soil and Stray Currents and Cathodic Protection System Design" has been prepared by the firm of CorTech, Inc. The Contractor's attention is directed to the Cathodic Protection Design drawings consisting of fourteen (14) sheets and Engineering Study of Soil and Stray Currents and Cathodic Protection System Design report that consists of seventeen (17) pages that is attached to the end of this section; and to the Quantity and Cost Estimating report consisting of one (1) page that is attached to the end of this section.
- (12) "As-Built" Drawings For Water Mains And Appurtenances 24-Inches (600-mm.) And Larger: Upon the completion of the work for each Capital Project and as a condition precedent to obtaining the certificate for substantial completion for each Capital Project under Article 44 of the Contract, the Contractor shall furnish "As-Built" drawings for water mains and appurtenances 24-inches and larger to the City. The Contractor shall prepare and submit the "As-Built" record drawings to the Engineer for approval. Approved "As-Built" drawings shall be delivered to the Department of Design and Construction, 30-30 Thomson Avenue, Long Island City, New York, 11101-3045. The following guideline is provided for the preparation of "As-Built" record drawings:
- (A) The Contractor shall prepare the "As-Built" drawings on AutoCAD and shall provide to the City two (2) sets of Mylar and AutoCAD files on a CD. The drawings on CD's and the plotted Mylar's shall conform to the standard size of 22" x 36" (559-mm. x 914-mm.) using a 1"=30' (1:360) horizontal and 1"=10' (1:120) vertical scale. The Mylar shall be 3-mil in thickness.
- (B) The "As-Built" drawings shall include but not be limited to the following guidelines summarized below:
- (1) Drawings shall consist of the same legend and layout of title boxes shown on the contract drawings.
  - (2) Each plotted Mylar drawing shall contain the signature and stamp of the Contractor's NYS Professional Engineer/Registered Architect.
  - (3) The drawings shall include:
    - (a) street name and crossing street(s) or distance from;
    - (b) north arrow;
    - (c) property lines and widths;
    - (d) legal and existing street widths, street alignment and grades;
    - (e) "new" curb lines and widths;
    - (f) water main center line measured off the "new" curb line;
    - (g) horizontal stationing for all valves, hydrants, outlets, blow-offs, house service connections, etc., measured on a horizontal line as established by the Borough Office Bureau of Topographic;
    - (h) alignment and appurtenance location stationing, and deflection angles;
    - (i) cover and elevations (Datum used shall be that of the Borough where work is located);
    - (j) location of pipe joints;
    - (k) profile of all piping;
    - (l) complete details of all outlet piping roundabouts;
    - (m) complete details of all blow-off connections to the sewer;
    - (n) complete details of all air cocks;

- (o) location of taps and access manholes;
- (p) location of all cathodic protection stations;
- (q) Venturi sensing lines plans and profiles;
- (r) all appropriate notes.

(C) The cost of preparing and submitting "As-Built" approved drawings shall be deemed included in the prices bid for all scheduled bid items in the contract. No separate or additional payment will be made for this work.

(13)The Contractor is notified that at some locations, existing sewers, manholes, water mains, etc. which are to remain undisturbed are in close proximity to the line of the proposed work. The Contractor shall exercise extreme care, minimize the trench width of the proposed water main and take all necessary precautions in placing sheeting and during excavation of the trenches to prevent damage to the existing city-owned structures that are to remain undisturbed. Any damage to existing city-owned structures caused by the Contractor's construction operations shall be repaired or replaced as directed by the Engineer. The cost of such repair or replacement shall be borne solely at the Contractor's own expense.

(14)The Contractor is hereby advised that under-sidewalk vaults may be present in both sidewalk and roadway areas within the project limits. Where Contractor claims any locations cannot be completed because of vaults, the Contractor should indicate by which method the Contractor has determined vault interference and provide that information to the Engineer.

Prior to any sidewalk excavation, the Contractor shall be responsible to verify the existence of under-sidewalk vaults. The Contractor shall perform visual sidewalk reconnaissance; search for and examine record drawings; gain access to cellars and obtain measurements within vaults; and perform sub-surface radar examination or use other non-destructive methods to locate possible vault structures. Where these above methods of verification are not available to the Contractor, the Contractor shall then be required to locate the vault envelopes and their roof depth below finished sidewalk grade by drilling holes (at no direct payment), or by Test Pits, under Item No. 73.31AEO, as directed by the Engineer.

The Contractor shall be liable for any damage to the under-sidewalk building vaults and/or its contents and/or occupants due to the Contractor's failure to verify the pre-existing vault condition.

Vault records may be available from the following (or other) sources:

- (A) DEPARTMENT OF TRANSPORTATION, BUREAU OF HIGHWAY OPERATIONS, PERMIT SECTION, 55 WATER STREET, CONCOURSE LEVEL, NEW YORK, NEW YORK 10041
- (B) NEW YORK CITY DEPARTMENT OF BUILDINGS
- (C) NEW YORK CITY BUREAU OF FRANCHISES

Where vault roofs are determined to interfere with construction of standard pedestrian ramps, the Engineer's may approve for construction of, or installation of, non-standard pedestrian ramps, which may include relocation of ramps and/or partial roadway ramps.

An overall field sketch of each corner suspected of having a vault, along with at least one photograph (3" x 3" minimum) of each location, and the results of the Contractor's investigation shall be furnished by the Contractor to the Engineer for review at least ten (10) working days prior to start of work at that respective corner. Said photographs shall be in addition to those required under the contract. Each field sketch shall show measurements of affected areas of vaults, the building line as a reference guide which can be employed to indicate the vault envelope in the sidewalk, the boundaries of the underground structures, curb reveals, and location of proposed pedestrian ramps. No additional payment is to be made for this overall sketch.

Any vault structures punctured by the Contractor's operations shall be repaired by the Contractor to match the existing structure. Said hole in vault structures shall be temporarily repaired with an approved epoxy mortar, or securely steel plated if permanent repairs are not completed prior to the end of that same working day. No holes in vault roofs shall be left unattended at any time.

The Contractor shall also be responsible to replace damaged water proofing directly over vault roofs at the Contractor's own expense.

- (15) The contractor is notified that where ever ductile iron pipe is installed within the project scope, especially in soil environments that are considered to be potentially corrosive to ductile iron pipe, that the Engineer may direct the Contractor to test the soil and other conditions that affect the corrosion rate of ductile iron pipe in accordance with "AWWA C105/A21.5, Appendix A" to determine the necessity of polyethylene encasement of pipe. The rate of testing shall not exceed two tests per block. The Engineer reserves the right to witness all sampling and testing of the soil. The cost for testing the soil, including all labor, materials and equipment, shall be included in the prices bid for laying ductile iron pipe and fittings per Section 60.12 of the Standard Sewer and Water Main Specifications.
- If the soil is found corrosive for the ductile iron pipe, the Contractor shall encase the new ductile iron pipe and appurtenances in an approved loose 8-mil thick polyethylene sleeve in accordance with item 65.21 PS - "FURNISHING AND PLACING POLYETHYLENE SLEEVE", or as ordered by the Engineer. The payment for all labor, materials and equipment, etc., complete, required for the encasing the ductile iron pipe shall be deemed included in the price bid for the item 65.21 PS - "FURNISHING AND PLACING POLYETHYLENE SLEEVE" and no separate payment shall be made.

**B. REVISIONS TO THE STANDARD HIGHWAY SPECIFICATIONS**

- (1) **Refer** to Standard Highway Specifications Volume I (November 1, 2010), Page 165:  
**Add** the following new **Section 4.04 MM**:

**SECTION 4.04 MM - Procedure For Estimating Concrete Strength By The Maturity Method**

**4.04MM.1. DESCRIPTION.** The Maturity Method is a non-destructive procedure for estimating concrete strength and shall be used to determine when to open the concreted area to traffic. The requirements of this section shall apply to all concrete placed under Item No 6.97 A and in accordance with **Section 6.97 A - Extra-High-Early Strength Concrete Base**.

The Maturity Method will not be used by the Department for accepting the strength of a concrete. Strength testing by destructive means will still be used by the Department for strength acceptance.

Maturity will not be used to decrease curing times.

**4.04MM.2. PROCEDURE FOR DEVELOPING A MATURITY CURVE.** For each proposed mix design develop the maturity curve in accordance with ASTM C1074. Make 6" x 12" cylinders and base the curve on compressive strength.

- (A) Make all specimens from the same batch of concrete. Batch size shall be at least 3-cubic yards. Mix using the same materials, mix design and mixing technique that will be used for concrete on the project. Use the same mixing equipment when possible. Mix at the maximum w/c ratio of the design. Mix at or within 0.5% of the maximum air content of the design. Additional maturity curves similar to the curves which are part of the eleven (11) pages of attachments (Suggested Mix Design For Extra-High-Early Strength Concrete Base) to **Section 6.97 A - Extra-High-Early Strength Concrete Base**, but limited to 28-days, can be made from different batches using the same mix design at lower w/c ratios and air contents, and these additional maturity curves can be used for interpolating concrete strength estimations if it can be shown that the concrete delivered to the project was at a lower w/c or lower air content.
- (B) Determine the plastic properties of the batch by performing slump, air content, unit weight, and concrete temperature before making specimens. Determine slump in accordance with ASTM C143, air content in accordance with ASTM C231 or ASTM C173, unit weight in accordance with ASTM C139, temperature in accordance with ASTM C1064, shrinkage in accordance with ASTM C157, and freeze/thaw in accordance with NYSDOT Method 502-3P.
- (C) Make a minimum of seventeen (17) specimens in accordance with ASTM C192. Embed sensors in the center of two (2) of the specimens. Moist cure all specimens in a temperature controlled water bath or in a moist room meeting the requirements of ASTM C511. Test cylinders in accordance with ASTM C39. Do not test cylinders with sensors embedded in them. For high early strength concrete and for extra-high-early strength concrete, test when strengths are approximately equal to 30%, 60%, 75%, 85%, and 100% of the design strength. Additional specimens can be made and tested at other ages as well as unused specimens to help define the maturity curve.
- (D) At a minimum, personnel making cylinders and performing slump, air content, unit weight, and concrete temperature shall be ACI certified as Concrete Field Testing Technicians, Grade I, and personnel testing cylinders for compressive strength shall be ACI certified as Concrete Strength Testing Technicians.
- (E) Use digital data-loggers in conjunction with a commercial maturity instrument that automatically computes and displays maturity. Develop the curve using the temperature-time factor maturity function. Use a value of 32° F (0° C) for  $T_o$  (datum temperature) unless a more accurate value is determined in accordance with Annex A1 of ASTM C1074.

**4.04MM.3. ACCEPTANCE OF A MATURITY CURVE BY THE DEPARTMENT.** For each mix design submit the maturity curve, mix design, material sources, plastic test results, strength test results, data, calculations and method used for monitoring maturity in the laboratory to the Engineer. The Department will require thirty (30) days to evaluate the results for acceptance.

**4.04MM.4. USING CONCRETE MATURITY IN THE FIELD.** Estimating concrete strength by maturity is acceptable when the concrete is batched using the same materials (including admixtures), material proportions, mix design, and mixing technique as that of the batch used to develop the maturity curve. The curve can be used on the project to estimate concrete strength if the w/c ratio of the concrete used on the project is less than or equal to the w/c ratio used to develop the curve.

- (A) Use digital data-loggers in conjunction with a commercial maturity instrument that automatically computes and displays maturity to monitor field placed concrete. Use the time-temperature maturity function. Use the same value for  $T_o$  (datum temperature) that was used to develop the maturity curve.
- (B) Install at least one (1) sensor for every 3,600-square yards of concrete base (or fraction thereof) with the sensor representing the last 3,600-square yards of concrete pavement (or fraction thereof) installed in the last load of concrete mixed and placed that day. Install at least one (1) additional sensor each day in concrete that is placed within the last four (4) hours of work that day where maturity gain is expected to be the slowest. Maturity gain typically is expected to be the slowest in the thinnest section of pavement. If all sections of pavement have the same dimensions and no section is expected to gain maturity slower, place the additional sensor in any section of pavement constructed from the second to last load of concrete mixed and placed that day.
- (C) Install additional sensors when necessary for accurately determining the maturity of a concrete or as directed by the Engineer.
- (D) Provide one (1) sensor to the Engineer for random placement at the Department's discretion for every ten (10) sensors the Contractor is required to install. If the number of sensors installed by the Contractor exceeds the minimum required by these specifications, the number of sensors above the minimum will not be counted as required sensors.
- (E) When installing sensors, use a placement strategy that targets areas where the concrete is expected to gain maturity the slowest. Place sensors near the fringes, in thinner sections, or in shaded areas where the concrete will be cooler. Do not place sensors in the center of the pour where the concrete will be the hottest. Typical sensor placement should be one (1) foot from an edge or corner and six (6) inches below the surface, but try to maintain at least six (6) inches of cover in each direction. At a minimum, install sensors with at least three (3) inches of cover in each direction. Use traditional methods in lieu of maturity if the least dimension of a concrete is less than six (6) inches (i.e. if three (3) inches of cover cannot be maintained in each direction) because ambient conditions may affect the sensor causing maturity readings from that sensor to be inaccurate.
- (F) Provide the Engineer with one (1) set of the same maturity monitoring equipment reader that the Contractor will be using on the project so that DDC can independently monitor concrete maturity. Provide DDC personnel training on how to operate the equipment. The monitoring equipment will be returned at the completion of the project.
- (G) Maintain a separate log for each sensor which includes a unique ID; location; date and time of installation; date and time that the sensor began monitoring maturity; dates and times of all readings taken from the sensor; the corresponding temperature, maturity, and concrete age at each reading; and the date when readings were discontinued. Notify the Engineer immediately with problems or discrepancies with readings or if any sensors are found to be damaged or operating improperly, and document on the log the date and time this determination was made, what the problem is, and the steps taken to correct it. Have the log available for viewing by DDC project personnel at all times and provide an updated copy or the log to DDC project personnel on a weekly basis if the sensor is still in use.

**4.04MM.5. VERIFICATION OF THE MATURITY CURVE.** Maturity curve verification consists of making test specimens, monitoring the maturity of the specimens, testing the specimens by destructive means to determine the actual strength, and comparing the actual strength determined by destructive testing with the strength estimated by maturity. If the actual strength is the same or greater than the strength estimated by maturity, the curve is verified. If the actual strength is less than the strength estimate by maturity, the curve is not verified. If a curve cannot be verified, it may be an indication of changes or alterations in the mix design, batching procedures, material proportions, or properties in the materials being used, or that the maturity curve being used was not developed correctly.

Perform maturity curve verification weekly to determine if the strength of the concrete being supplied to the project is equal to or greater than the strength estimated by maturity. If four (4) consecutive weekly maturity curve verifications determine that the maturity curve being used is verified, reduce the frequency to once every two (2) weeks.

If maturity curve verification testing does not verify a maturity curve, immediately notify the Engineer, immediately discontinue using maturity for estimating strength, perform an investigation as to why maturity was not able to be verified, and provide the Engineer with a written report detailing why the curve was not verified and what actions will be taken to ensure that maturity will not be compromised in the future. If the Engineer is satisfied with the report and that the problem has been resolved, maturity can be used again on the project with maturity curve verification being performed as directed by the Engineer, but in no case, less than once a week. If future maturity curve verifications determine that the curve is verified, the frequency of maturity curve verification can be decreased at the City's discretion.

Maturity curve verification consists of the following:

- (A) Sample concrete from a load or batch being used on the project. If the maturity curve is based on compressive strength, make five (5) 6" x 12" cylinders for test specimens. Sample in accordance with ASTM C172. Make and cure test specimens in accordance with ASTM C31. At a minimum, personnel sampling and making specimens in the field will be ACI certified as Concrete Field Testing Technicians, Grade I.
- (B) Place a sensor in the center of one of the test specimens and monitor maturity.
- (C) Test the specimens in pairs and average the results to determine strength. Test the first pair of specimens when maturity readings indicate that the specimens have achieved strength between 50% and 70% of the design strength, and test the remaining pair when maturity readings indicate that the specimens have achieved strength between 85% and 100% of the design strength. Test cylinders in accordance with ASTM C39. Do not test the specimen with the sensor embedded in it. At a minimum, personnel testing cylinders for compressive strength will be ACI certified as Concrete Strength Testing Technicians.
- (D) Compare the actual strength determined by destructive testing with the estimated strength determined by maturity to see if the curve is verified or not. If the actual strength is less than the estimated strength, the curve is not verified.

**4.04MM.6. MATURITY CURVE LIFE.** A maturity curve will be valid for two (2) years from the date the batch used to develop the maturity curve was made provided that the use of the Maturity Method is verified as per **Subsection 4.04MM.5** of this specification. The validity of a maturity curve can be renewed a maximum of two (2) times. Each renewal extends the validity of the curve for one (1) year.

The renewal of a maturity curve requires submission of a written request for renewal in advance of the maturity curve expiration date, submission of all verification data from **Subsection 4.04MM.5**, and acceptance of the data by the Department. Send the renewal request and verification data to DDC's Quality Assurance Department.

**4.04MM.7. BASIS OF PAYMENT.** No additional payment will be made for compliance with the provisions of this section.

- (2) **Refer** to Standard Highway Specifications Volume II (November 1, 2010), Page 352:  
**Add** the following new **Section 6.29 TTM**:

**SECTION 6.29 TTM - Temporary Tubular Markers**

**6.29TTM.1. INTENT.** This section describes the work of furnishing, installing, maintaining, and removing Temporary Tubular Markers.

**6.29TTM.2. DESCRIPTION.** Under this section, the Contractor shall furnish, install, maintain, relocate, and remove, when directed, Temporary Tubular Markers as indicated on the contract drawings and as directed by the Engineer. Tubular markers shall be defined by the National Cooperative Highway Research Program (NCHRP) Report 350 as a Category I device.

**6.29TTM.3. MATERIALS.** Tubular Markers shall conform to the specifications set forth in the National Manual on Uniform Traffic Control Devices for Streets and Highways (National MUTCD) plus the New York State Supplemental (NYS Supplement) and shall be NCHRP 350 approved. Tubular markers shall be orange, with a minimum height of 36" (900-mm) and a minimum outside diameter of 2" (50-mm). Tubular Markers shall be circular or elliptical in cross section and shall have a maximum weight of 13-lb (6-kg), not including a mounting base.

Tubular Markers shall have two horizontal circumferential stripes of white reflective sheeting a minimum of 3" (75-mm) wide. The top edge of the upper band shall be a maximum of 2" (50-mm) from the top of the marker. The space stripes between shall not exceed 6" (150-mm).

Reflective sheeting shall conform to NYSDOT Standard Highway Specification Section 730-05 *Reflective Sheeting* ASTM D4956 Type I or Type III. The sheeting shall be bonded to the post with a precoated, pressure-sensitive adhesive or a tack-free, heat activated adhesive. Mechanical fasteners to bond reflective sheeting to the post will not be allowed.

For free-standing tubular Temporary Tubular Markers, the base and/or any nonflexible portion of the marker shall not be more than 2" (50-mm) in height.

For tubular Temporary Tubular Markers fastened to pavement, the bonding system used shall be a fast-setting chemical compound, mastic-type material, or mechanical fastener capable of fixing the tubular marker to either concrete or asphalt pavement. The bonding system shall not present a hazard to traffic if the tubular marker or base unit becomes unfixed from the pavement.

Acceptance of materials will be based on the manufacturer's name and type of tubular marker appearing on the most current New York State Department of Transportation's Approved List titled "Tubular Markers."

**6.29TTM.4. METHODS.** The Contractor shall install Temporary Tubular Markers in accordance with the contract documents or as directed by the Engineer. The Contractor shall attach the tubular markers to the pavement in a manner that prevents them from being moved or dislodged by traffic. Tubular markers shall be installed on pavement that has been cleaned to remove pavement markings, oil, dirt, or other debris or substances that may interfere with a proper bond. Attachment to the pavement shall be by mechanical fastener or by adhesive, in accordance with the manufacturer's recommendations. Bonding agents shall be of sufficient amount or size to ensure proper bonding of the base to the pavement.

All temporary tubular markers shall be maintained upright, at proper spacing, in proper alignment and orientation, kept clean, and replaced as required during the various stages of construction.

Temporary tubular markers removed or damaged by the Contractor's operations or by traffic shall be replaced immediately, so that positive separation is maintained between opposing lanes of traffic at all

times. Damaged reflective sheeting on interim tubular markers shall be replaced before nightfall as necessary to maintain adequate visibility of the markers. In cases where only isolated individual markers are lost or damaged, and adequate visibility is maintained by the remaining markers, replacement will not be required until more than one (1) consecutive markers have been damaged or lost.

At the completion of the work or when directed by the Engineer, the temporary tubular markers shall be removed and disposed of away from the work site.

**6.29TTM.5. MEASUREMENT.** The quantity to be measured for payment shall be the actual number of Temporary Tubular Markers placed in the work, to the satisfaction of the Engineer.

Payment will be made only for the initial installation at any location. Whenever Temporary Tubular Markers are moved to a new location, as required by the contract drawings or directed by the Engineer, payment will be made in the same manner as if it were an initial installation. However, only tubular markers that are in satisfactory conditions may be relocated to a new location. Minor movement of the Temporary Tubular Markers from one side of the roadway to the other side, or rearrangement within a work area will not be considered as a movement to a new location and will not entitle the Contractor to additional payment.

No payment will be made for movements of Temporary Tubular Markers made for the Contractor's convenience; for movement of Temporary Tubular Markers at a given location at the end of a work period and subsequent replacement at the same location at the beginning of the next work period; for movement of Temporary Tubular Markers at a given location during a work period and subsequent replacement at the same location during the same work period; or for the interchanging of Temporary Tubular Markers between initial installations.

**6.29TTM.6. PRICE TO COVER.** The contract price bid per each for Item No. 6.29 TTM - TEMPORARY TUBULAR MARKERS, shall cover the cost of furnishing all labor, materials, equipment, insurance, and necessary incidentals required to complete the work of furnishing, installing, maintaining, relocating, and removing tubular markers, all in accordance with the contract drawings, the specifications and the directions of the Engineer. No additional payment will be made for replacing damaged markers.

*Payment will be made under:*

Item No.	Item Description	Pay Unit
6.29 TTM	TEMPORARY TUBULAR MARKERS	EACH

- (3) **Refer** to Standard Highway Specifications Volume II (November 1, 2010), Page 360: **Add** the following new **Section 6.34 A:**

**SECTION 6.34 A - Temporary Chain Link Fence, 6'-0" High**

**6.34A.1. DESCRIPTION.** Under this section, the Contractor shall furnish, erect, maintain, and remove, when directed, each type of Temporary Chain Link Fence as shown on the contract drawings and directed by the Engineer.

**6.34A.2. MATERIALS AND METHODS.** All materials and methods shall be as specified in **Section 6.34** of the Standard Highway Specifications, with the following modifications and additions:

Temporary Chain Link Fence to be furnished under Item No. 6.34 ACT - TEMPORARY CHAIN LINK FENCE, 6'-0" HIGH, shall consist of chain link fence fabric, top and bottom tension wires, gates, posts to be embedded in the pavement, and all necessary incidentals in accordance with the contract drawings and the directions of the Engineer.

Temporary Chain Link Fence to be furnished under Item No. 6.34 ACTP - TEMPORARY CHAIN LINK FENCE, 6'-0" HIGH, (WITH TOP AND BOTTOM RAILS AND POSTS MOUNTED ON STEEL



PLATES), shall consist of chain link fence fabric, top and bottom rails for mounting a decorative mesh (to be furnished under Item No. 9.06 HW), gates, and posts. Posts shall be mounted on two (2) feet square steel plates with a vertical pin not less than two (2) feet high welded to the center of the plate, all as approved by the Engineer. The Contractor shall also be required to secure the fence with sand bags to hold fence in place, and all necessary incidental in accordance with the contract drawings and the directions of the Engineer.

When directed by the Engineer, the Contractor shall remove and dispose of the temporary chain link fence to the satisfaction of the Engineer. The Contractor shall then fill any holes left in the pavement with compacted clean sand to grade.

**6.34A.3. MEASUREMENT.** The quantities of Temporary Chain Link Fence to be measured for payment shall be the number of linear feet of each type satisfactorily installed, complete, measured in place, from center to center of end posts.

Payment will be made for each type of Temporary Chain Link Fence only for the initial installation at any location. Whenever temporary chain link fence are moved to a new location, as required by the plans or directed by the Engineer, payment will be made in the same manner as if it were an initial installation. Minor movement of temporary chain link fence from one side of the roadway to the other side, or rearrangement within a work area will not be considered as a movement to a new location and will not entitle the Contractor to additional payment.

No payment will be made: for movements of each type of temporary chain link fence made for the Contractor's convenience; for movement of temporary chain link fence at a given location at the end of a work period and subsequent replacement at the same location at the beginning of the next work period; for movement of temporary chain link fence at a given location during a work period and subsequent replacement at the same location during the same work period; or for the interchanging of temporary chain link fence between initial installations.

**6.34A.4. PRICES TO COVER.** The contract prices bid per linear foot for each type of "TEMPORARY CHAIN LINK FENCE" shall be a unit price per linear foot and shall cover the cost of all labor, materials, plant, equipment, insurance, and necessary incidentals required to furnish, install, maintain, and remove temporary chain link fence; all in accordance with the contract drawings, the specifications and the directions of the Engineer. Temporary chain link fence shall also include, but not limited to, any gates as may be required.

*Payment will be made under:*

Item No.	Item Description	Pay Unit
6.34 ACT	TEMPORARY CHAIN LINK FENCE, 6'-0" HIGH	L.F.
6.34 ACTP	TEMPORARY CHAIN LINK FENCE, 6'-0" HIGH, (WITH TOP AND BOTTOM RAILS AND POSTS MOUNTED ON STEEL PLATES)	L.F.

- (4) **Refer** to Standard Highway Specifications Volume II (November 1, 2010), Page 404:  
**Add** the following new **Section 6.59 PF**:

**SECTION 6.59 PF - Temporary Concrete Barrier With Fence**

**6.59PF.1. INTENT.** This section describes the work to be done in connection with temporary concrete barriers with chain link fence.

**6.59PF.2. DESCRIPTION.** The Contractor shall furnish, install, move maintain and remove temporary concrete barriers with chain link fence in accordance with the plans, the specifications and the directions of the Engineer.

**6.59PF.3. MATERIALS.** The temporary concrete barrier shall conform to the requirements of New York State Department of Transportation Standard Sheet No. 619-3R1, modified to accommodate a chain link fence with posts. Top and bottom rails will not be required for the fence.

Chain link fencing and incidentals shall be in accordance with Section 607 and Materials Section 710, of the current Standard Specifications, Construction and Materials, New York State Department of Transportation, Office of Engineer. The Engineer will inspect all chain link fence material for conformance with specifications.

The Contractor shall be required to provide a solid, secure chain link fence system consisting of posts, post embedment, fence fabric, and all other incidentals as may be required. Fence posts shall be embedded in the concrete barrier and the chain link fence shall extend from the barrier to a height of at least six (6) feet above grade.

Maximum spacing of fence posts shall be eight (8) feet from center to center. Minimum embedment of fence posts into the barrier shall be four (4) inches deep.

Fence fabrication shall be continuous for the length of the concrete barrier; however, at joints between concrete barriers, the gap between fence sections shall not be more than four (4) inches.

The barrier sections shall be precast portable concrete units. The Manufacturer shall certify that the temporary concrete barrier units conform to the details shown on the aforementioned NYSDOT's Standard Sheet, or approved drawing.

The Engineer will inspect the temporary concrete barrier sections, complete with fence, upon delivery to the project site for conformance to specifications. Any barrier sections having damage and/or defects in the concrete, fence and/or joint connections will be rejected by the Engineer when in the Engineer's judgment the performance of the barriers will be affected.

The temporary concrete barrier sections with fence shall form a smooth and continuous barrier when joined together. Any sections damaged or misaligned while in service shall be corrected or replaced to the satisfaction of the Engineer.

Striped reflectorization of the barriers is required. Striping pattern is to be alternating twelve (12) inch wide stripes of white and orange sloped downwards in the direction of traffic at 45-degrees.

Reflective sheeting material shall be used and it shall conform to photometric and color (Orange and White) requirements of Subsection 730-05.02, Reflective Sheeting (Class B), of the current Standard Specifications, Construction and Materials, New York State Department of Transportation, Office of Engineer.

**6.59PF.4. METHODS.** The Contractor shall furnish, erect, move, and remove temporary concrete barriers with chain link fence where and as indicated on the plans or as directed by the Engineer.

Where indicated on the plans or in the proposal, temporary concrete barriers shall be supplemented by approved steady burning lights.

Each run, or bay, of temporary concrete barrier unit with chain link fence shall be fastened together to form a continuous chain. After placement, each successive unit shall be moved longitudinally to remove the slack in the joint between units. The units at each end of a run or bay shall be anchored as shown on the Standard Sheet. Where shown on the plans or directed by the Engineer, the ends of the barrier run shall be fitted with a tapered end section, flared back.

**6.59PF.5. MEASUREMENT.** The quantity to be measured for payment shall be the number of linear feet of temporary concrete barrier with chain link fence actually placed including transition sections, measured along the centerline of the top surface of each barrier.

**6.59PF.6. PRICE TO COVER.** The contract price bid per linear foot for Item No. 6.59 PF - TEMPORARY CONCRETE BARRIER WITH FENCE, shall cover the cost of all labor, materials, and equipment necessary to erect, maintain, and remove the required temporary concrete barrier with chain link fence, including any required connection devices, orange and white reflective stripes on the faces of the barriers, all in accordance with the plans, the specifications and the directions of the Engineer.

Any movement of temporary concrete barrier with chain link fence except movements of the concrete barrier necessary to maintain, realign, or replace damaged units will be considered as a movement to a new location and the Contractor will be entitled to payment for the movement.

*Payment will be made under:*

Item No.	Item Description	Pay Unit
6.59 PF	TEMPORARY CONCRETE BARRIER WITH FENCE	L.F.

**((5) Refer** to Standard Highway Specifications Volume II (November 1, 2010), Page 470:  
**Add** the following new **Section 6.97**:

**SECTION 6.97 A - Extra-High-Early Strength Concrete Base**

**6.97A.1. DESCRIPTION.** This section describes the construction of an extra-high-early strength concrete base for pavement.

In intersections where the street must be fully opened to traffic by the end of each work period, in accordance with the contract drawings, the specifications, the traffic stipulations, and the directions of the Engineer, the concrete base shall be laid with an extra-high-early strength concrete base.

The Contractor will be subject, under **Section 6.70** of the Standard Highway Specifications, to liquidated damages in the amount shown on Schedule "A" for each and every hour, or any part thereof, that the entire width of pavement designated to be reconstructed with extra-high-early strength concrete base is not available to traffic one (1) hour after the end of each work period.

**6.97A.2. MATERIALS AND METHODS.** All materials and methods for the concrete base shall comply with the requirements specified for Item 4.04 H, except for the following modifications and additions:

- (A) Concrete shall be extra-high-early strength capable of obtaining a minimum compressive strength of 2,800-psi in six (6) hours, a minimum compressive strength of at least 3,200-psi at 3-days, and a sufficient size work crew and working time before its initial set to allow for proper placement of the concrete. Modification of concrete shall be with either an increased cement factor (10-bag mix of Portland cement), a reduced water content, superplasticizer, and accelerator or an approved Type IP hydraulic cement complying with the requirements of ASTM C595 modified with additives meeting the requirements of ASTM C688.
- (B) A suggested mix design and test results are attached at the end of this section. Should the Contractor propose to use this mix design the Contractor shall be required to verify that the Contractor's mix agrees with the first 28-days of the attached test results. Otherwise, if the Contractor chooses to use another mix design, the Contractor shall be required to document the Contractor's proposed mix design for 28-days in the same manner as shown on suggested mix design and test results which are part of the eleven (11) pages of attachments (Suggested Mix Design For Extra-High-Early Strength Concrete Base) to the end of this **Section 6.97 A**.
- (C) The laboratory used to verify that the Contractor's mix agrees with the mix design proved herein, or document another proposed mix design, shall be subject to approval by DDC's Quality Assurance and Construction Safety (QACS) Bureau and shall be in accordance with their "MIX DESIGN, LABORATORY AND PLANT APPROVAL PROTOCOL". Copies of this protocol may be obtained at the preconstruction meeting or from the Engineer. The minimum requirement for

approval is that the laboratory must have the current AMRL/AASHTO R-18 accreditation in the category of service proposed, it must be currently licensed by the NYC Department of Buildings (DOB), and it must have documented experience estimating concrete strength by the use of Maturity Meters. In addition, all testing requirement to verify that the Contractor's mix agrees with the mix design proved herein, or document another proposed mix design, shall be witnessed by a representative of DDC's QACS Bureau.

- (D) Prior to all work under this contract, the Contractor shall file with the Engineer Age-Strength data sheets of the job mix formulas for each type of concrete the Contractor proposes to use, for various ambient temperatures anticipated during the work period. These data sheets shall be used in determining the curing periods of the concrete used. Data sheets are to be presented in both tabular and graphical forms for various ambient temperatures with a maximum setting period of six (6) hours.
- (E) All materials and equipment to be used by the Contractor shall be as approved by the Engineer.
- (F) The earth subgrade, immediately before the concrete base is laid, shall be thoroughly compacted by an approved method, to the satisfaction of the Engineer. It shall be smooth, finished to the bottom elevation of the adjacent concrete base pavement, and be dampened with water sufficient only to be absorbed by the subgrade. The subgrade shall not be in a muddy or frozen condition and unsuitable material shall be removed and replaced with acceptable material, thoroughly compacted.
- (G) All constituents of concrete shall be delivered to the project site each work period as required. The Contractor shall supply concrete at a rate consistent with placement operations as determined by the Engineer. Concrete must be batched in sufficient quantity to prevent cold joints from being formed during placement. The Engineer may discontinue the use of any type of concrete mixing or transporting units when unsatisfactory results are obtained.
- (H) All concrete shall be discharged from the discharge openings directly into the forms or into approved conveyance equipment while fresh and before there is evidence of initial set. Concrete shall be deposited before the initial set has taken place, in as nearly a continuous operation as practical, and with approved tools which will prevent segregation. Concrete shall not be deposited in standing water and shall be thoroughly compacted by use of external vibration (poker nose of screed). No retampering of the concrete will be permitted. Retampering is defined as the addition of water after the mix has attained its desired initial slump.
- (I) Concrete cylinders shall be taken at each location of work, as directed by the Engineer, to be tested the same day by the City.
- (J) No traffic is to be permitted on newly placed concrete base until it has obtained the minimum 2,800-psi compressive strength specified.

**6.97A.3. MEASUREMENT.** The quantity to be measured for payment under this item shall be the volume, in cubic yards, of extra-high-early strength concrete laid where directed by the Engineer, measured in place, and adjusted for strength deficiencies in accordance with **Section 5.04** of the Standard Highway Specifications.

In determining the volume of concrete to be paid for, the spaces occupied by bases of columns, manhole heads, gate boxes, road boxes, and similar structures will be deducted when their superficial areas measure more than one (1) square foot and will not be deducted when they measure one (1) square foot or less.

**6.97A.4. PRICE TO COVER.** The contract price per cubic yard of extra-high-early strength concrete shall cover the cost of all labor, materials, equipment, insurance, and incidentals necessary to furnish, lay and cure the concrete, complete in place, in full compliance with the requirements of the specifications, to furnish such samples and cores for testing and to provide such testing equipment, laboratory space and facilities as may be required, to maintain the concrete base in good condition as

**DATED: DECEMBER 23, 2017**

**PROJECT ID.: QED1023B**

specified in **Section 5.05** of the Standard Highway Specifications, and completing the work in accordance with the contract drawings, the specifications and the directions of the Engineer.

*Payment will be made under:*

Item No.	Item Description	Pay Unit
6.97 A	EXTRA-HIGH-EARLY STRENGTH CONCRETE	C.Y.

**SUGGESTED MIX DESIGN**

**FOR**

**EXTRA-HIGH-EARLY STRENGTH**

**CONCRETE BASE**



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 NY Metropolitan Regional Office / Corporate Headquarters  
 145 Sherwood Avenue, Farmingdale, NY 11735 (631) 815-1900 FAX (631) 815-1901  
 www.materials-testing.com

**Client:** Dept of Design & Construction  
 30-30 Thompson Ave.  
 Long Island City, N.Y. 11101

**Report #:** 09DDC-95100  
**Date:** 01/26/09  
**Mix #:** 37

**Concrete Class:** HE SuperPave

**Cementitious:** 940 Type II

Page 1 of 2

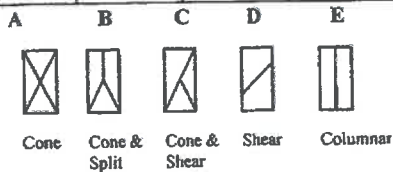
**CONCRETE FIELD DATA (ASTM C192)**

Cement lbs/ yd <sup>3</sup>	Sand lbs/ yd <sup>3</sup>	Stone lbs/ yd <sup>3</sup>	Water lbs/ yd <sup>3</sup>	Air Cont., %	Initial Slump in	Final Slump in	Concrete Temp, °F	Unit Wt. lbs/ yd <sup>3</sup>	Ambient Temp °F	Water Temp °F
940	1035	1750	253.3	5.8	0	10.50	85	148.0	60	183

Supplier: CASA Ready Mix  
 Sand: Roanoke-Washed / Specific Gravity: 2.63 – ASTM C33.  
 Stone: Tilon Clinton Point / Specific Gravity: 2.81 – ASTM C33 #57  
 Type I/II Cement: LaFarge – ASTM C150.  
 Air: MBVR E90 65.8 oz/cu yd  
 Plast. BASF 1390 112.8 oz/cu yd  
 Accelerator: MBNC 534 846

**COMPRESSIVE STRENGTH OF CONCRETE TEST CYLINDERS (ASTM C39) (4" D x 8" H)**

cid #	Date Cast	Date Tested	Age, Days	Cross-Sect. Area, (sq. in.)	Total Load (Lbs.)	Fracture Type	Strength (PSI)	°C Hrs Mat.	Cyl Temp °F	Complies
1	01/26/09	01/26/09	2h	12.57	765	B	61	65	89	
2	01/26/09	01/26/09	3h	12.57	4020	B	320	100	90	
3	01/26/09	01/26/09	3.5h	12.57	6725	B	535	114	104	
4	01/26/09	01/26/09	4h	12.57	12760	B	1015	138	109	
5	01/26/09	01/26/09	4h	12.57	15410	B	1226	140	109	
6	01/26/09	01/26/09	4 ½h	12.57	18640	D	1483	159	111	
7	01/26/09	01/26/09	5	12.57	24300	D	1933	182	114	
8	01/26/09	01/26/09	5 ½h	12.57	32495	D	2585	205	114	
9	01/26/09	01/26/09	6h	12.57	40475	D	3220	228	114	Y
10	01/26/09	01/26/09	6h	12.57	36520	D	2910	228	114	Y
11	01/26/09	01/26/09	7h	12.57	45400	D	3612	275	116	Y
12	01/26/09	01/27/09	7h	12.57	91780	D	7302	881	77	Y
13	01/26/09	01/27/09	7h	12.57	94510	D	7519	881	77	Y
14	01/26/09	01/28/09	2	12.57	107670	D	8565	1303	62	Y



Submitted By: Materials Testing Lab



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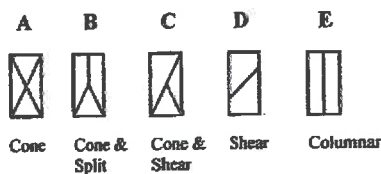
**Client:** Dept of Design & Construction  
 30-30 Thompson Ave.  
 Long Island City, N.Y. 11101

**Report #:** 09DDC-95100  
**Date:** 01/26/09  
**Mix #:** 37

**Concrete Class:** HE SuperPave  
**Cementitious:** 940 Type II

**COMPRESSIVE STRENGTH OF CONCRETE TEST CYLINDERS (ASTM C39) (4" D x 8" H)**

Field #	Date Cast	Date Tested	Age, Days	Cross-Sect. Area, (sq. in.)	Total Load (Lbs.)	Fracture Type	Strength (PSI)	°C Hrs Mat.	Cyl Temp °F	Complies
15	01/26/09	01/28/09	2	12.57	102555	D	8160	1303	62	Y
16	01/26/09	01/29/09	3	12.57	108270	D	8610	1779	68	Y
17	01/26/09	01/29/09	3	12.57	101095	D	8040	1779	68	Y
18	01/26/09	01/30/09	4	12.57	115610	D	9200	2247	68	Y
19	01/26/09	01/30/09	4	12.57	112340	D	8940	2247	68	Y
20	01/26/09	02/02/09	7	12.57	110965	D	8830	3738	71	Y
21	01/26/09	02/02/09	7	12.57	114050	D	9070	3738	71	Y
22	01/26/09	02/02/09	7	12.57	108760	D	8650	3738	71	Y
23	01/26/09	02/09/09	14	12.57	124850	D	9930	7232	69	Y
24	01/26/09	02/09/09	14	12.57	121170	D	9640	7232	69	Y
25	01/26/09	02/09/09	14	12.57	121010	D	9630	7232	69	Y
26	01/26/09	02/23/09	28	12.57	132110	D	10510	14381	68	Y
27	01/26/09	02/23/09	28	12.57	130760	D	10400	14381	68	Y
28	01/26/09	02/23/09	28	12.57	127590	D	10150	14381	68	Y
29	01/26/09	03/23/09	56	12.57	144830	D	11520	-	-	Y
30	01/26/09	04/21/09	84	12.57	150210	D	11950	-	-	Y
31	01/26/09	04/21/09	84	12.57	147520	D	11740	-	-	Y



Submitted By: Materials Testing



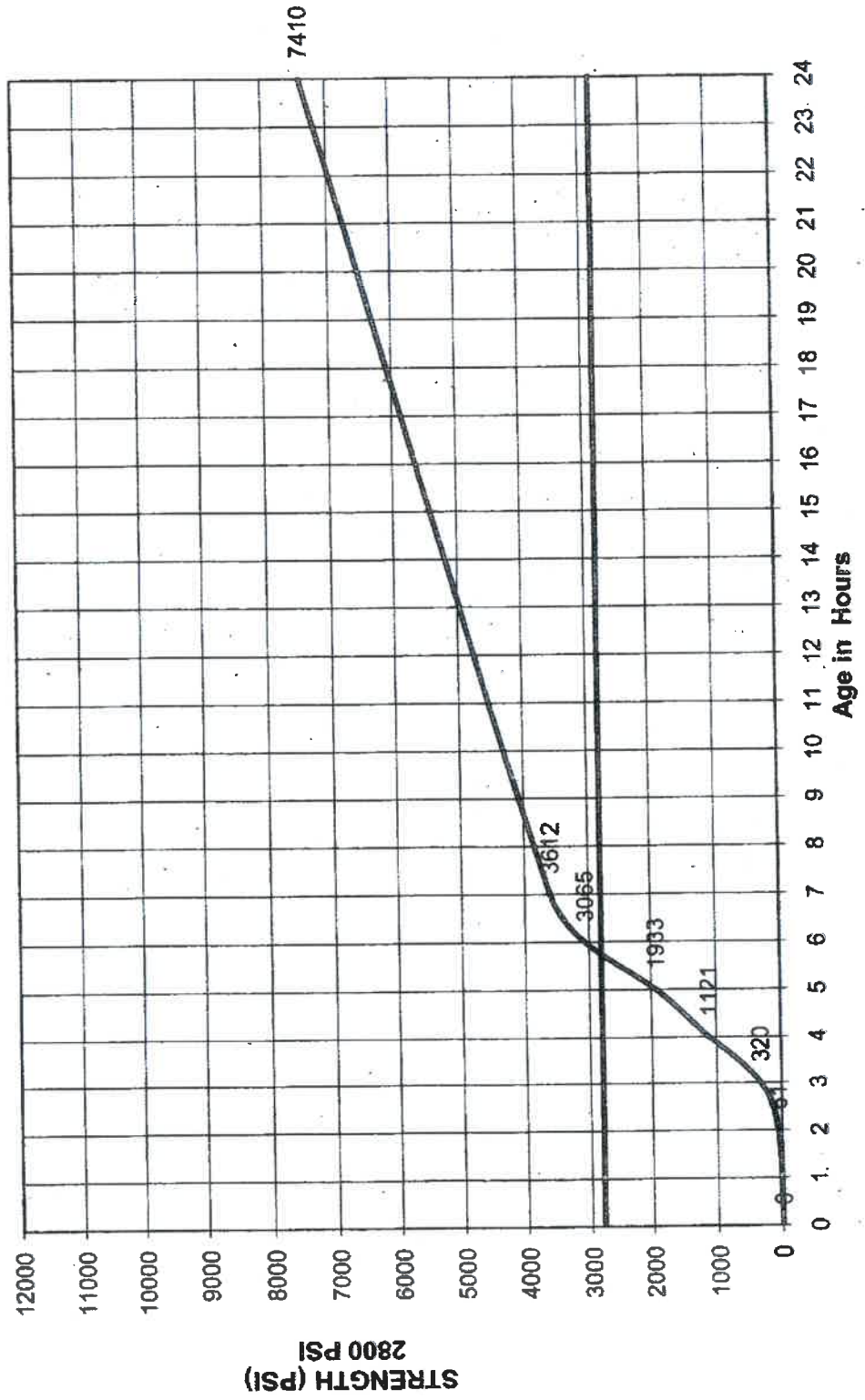
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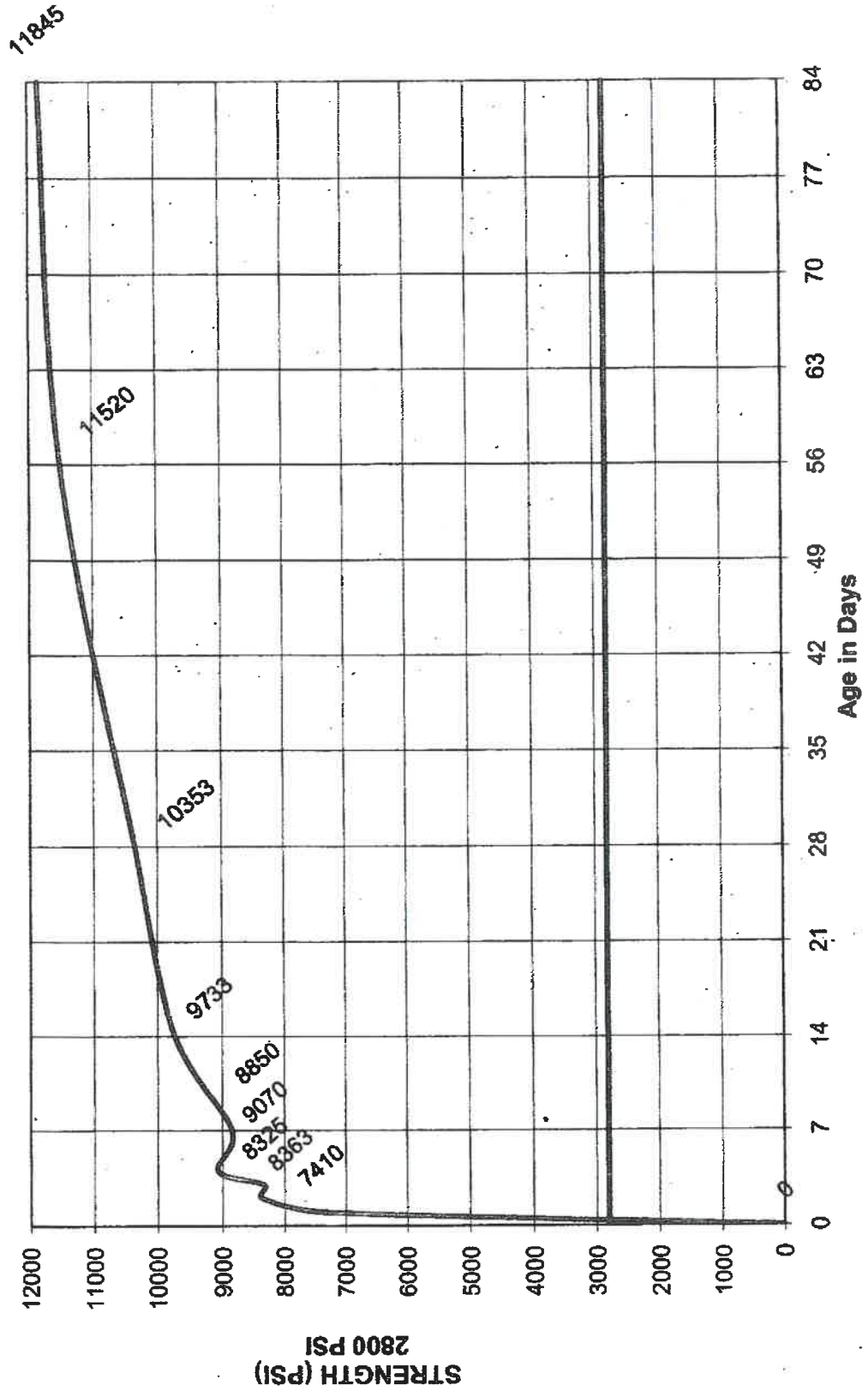




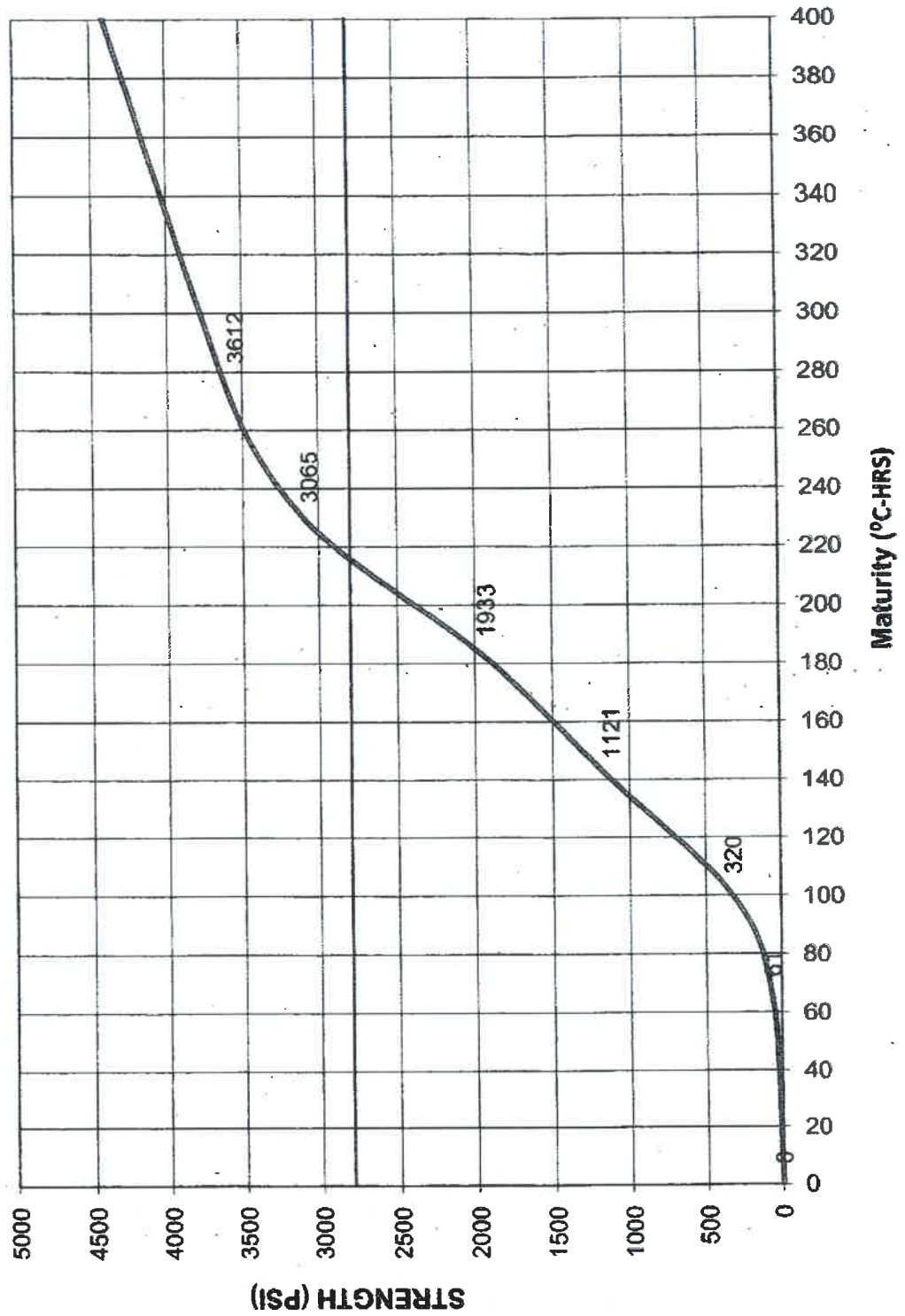
**DDC MIX DESIGNS**  
**Strength Gain over Time**  
**SUPER HE SUPERPAVE**  
**Cementitious 940 Type II**  
**MIX # 37**



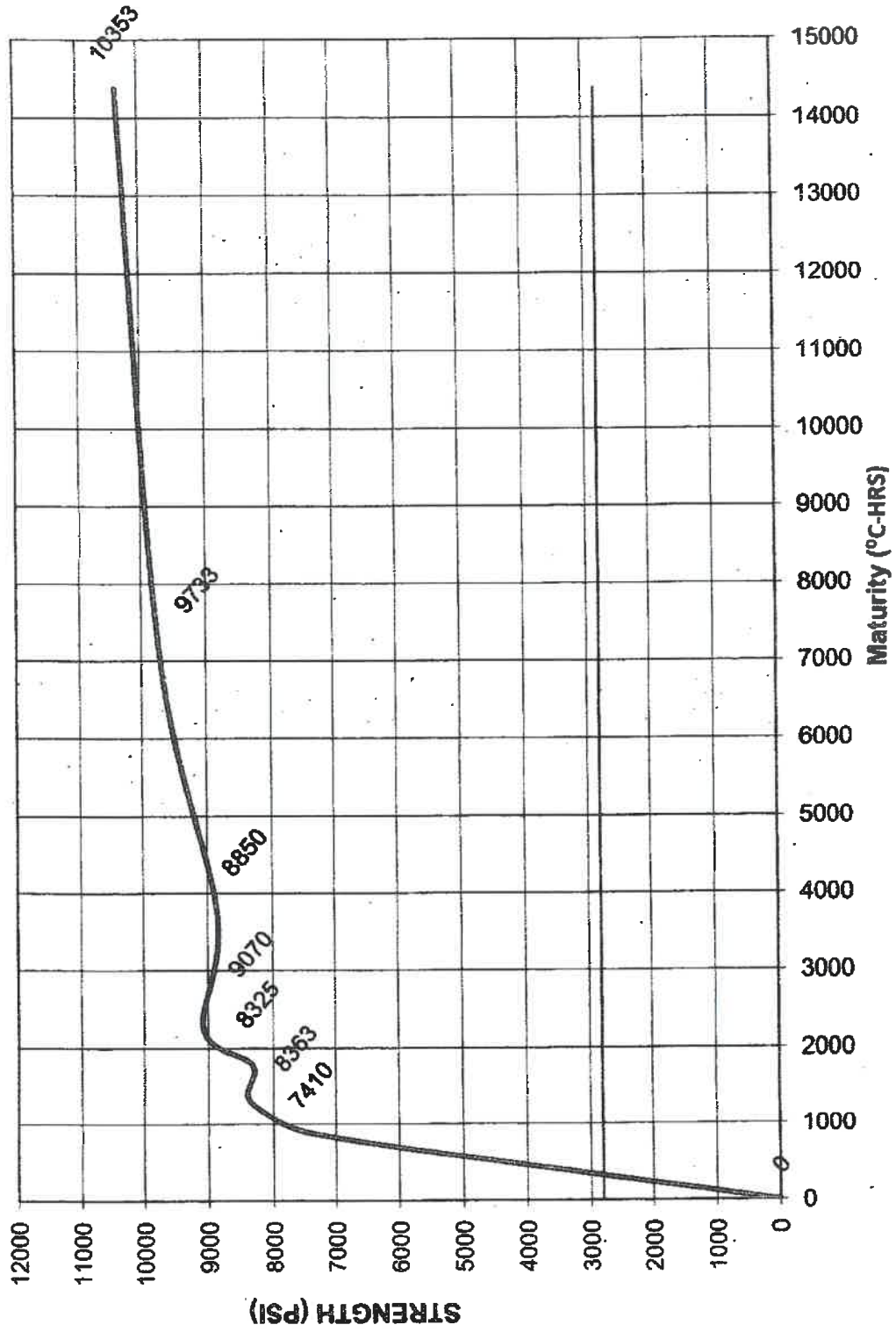
**DDC MIX DESIGNS**  
**Strength Gain over Time**  
**SUPER HE SUPERPAVE**  
**Cementitious 940 Type II**  
**MIX # 37**



**DDC MIX DESIGNS**  
**Strength Maturity Relationship**  
**SUPER HE SUPERPAVE**  
**Cementitious 940 Type II**  
**MIX # 37**



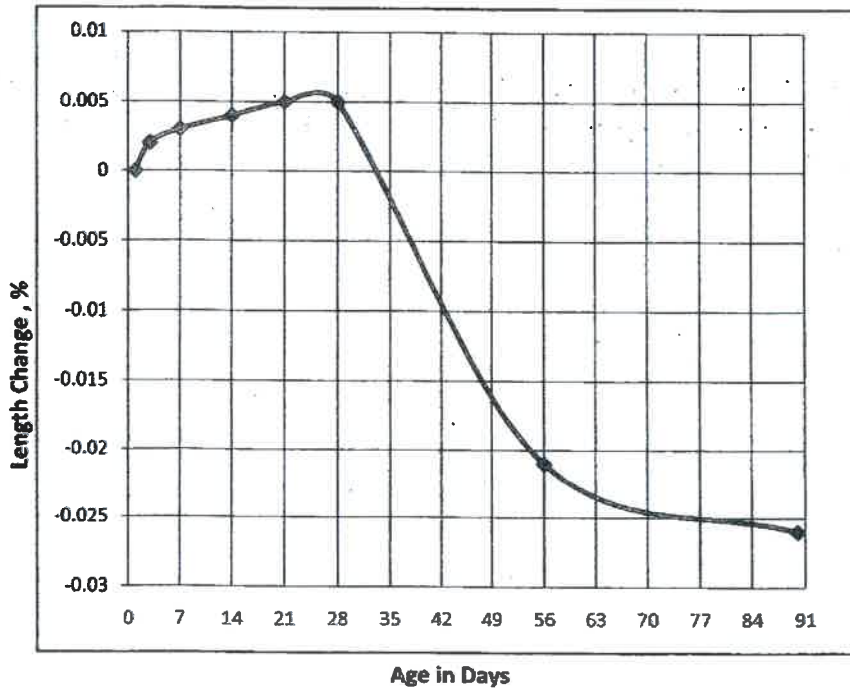
**DDC MIX DESIGNS**  
**Strength Maturity Relationship**  
**SUPER HE SUPERPAVE**  
**Cementitious 940 Type II**  
**MIX # 37**





Client : NYC DDC  
Green Concrete Design Mixes  
Procedure: ASTM C 157-06  
4" x 4" x 10" Concrete Prism  
MIX # 37 - Super HE Superpave - Cementitious 940 Type II

Days	Length Change, %
1	0
3	0.002
7	0.003
14	0.004
21	0.005
28	0.005
56	-0.021
90	-0.026



Remarks: For the 28 day result, the sample was immersed in lime saturated water.  
For the 56 & 90 day results, the sample was air-dried.





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Client: NYC Dept. of Design & Construction Report #: 09DDC-767 Page 18 of 19  
30-30 Thomson Avenue Date: 05/06/09  
Long Island City, NY 11101 Lab#: 9273  
Project: DDC Green Concrete Design Mixes  
Test: Standard Test Method for Resistance of Concrete Cores to Freezing & Thawing.  
Method: NYSDOT Method 502-3P  
Sampled By: MTL

**Test Procedure**

The concrete samples were tested in accordance with NYSDOT Method 502-3P. The samples were completely surrounded in 3% NaCl solution at all times while being subjected to 25 freezing and thawing cycles.

**Required - Material shall not exhibit a weight loss greather than 3 %.**

**Test Results**

Mix #	Cementitious lb/cy	% Fly Ash	Weight Loss %	Complies
37	940	-	0.0	Yes

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**Reported To:** Simon Sauberman  
**Submitted By:** Materials Testing Lab, Inc.  
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**Client:** NYC Dept. of Design & Construction **Report Date:** 11/07/08 **Page 1 of 2**  
 30-30 Thomson Avenue **Material:** Natural Sand  
 Long Island City, NY 11101 **Supplier:** CASA

**Project:** DDC Green Concrete Design Mixes  
**Test:** Gradation, #200 Wash, Specific Gravity and Absorption of Fine Aggregate  
**Method:** ASTM C117, ASTM C136, ASTM C128  
**Sampled By:** MTL **On** 11/06/08 **Delivered By:** Materials Testing Lab

**Gradation, #200 Wash**

Sieve Size	% Passing #1	ASTM C33 Specification
3/8"	100.0	100
#4	99.6	95-100
#8	94.0	80-100
#16	83.1	50-85
#30	58.0	25-60
#50	19.0	10-30
#100	4.4	2-10

**Specific Gravity and Absorption of Fine Aggregate**

Specific Gravity (OD):	2.629
Specific Gravity (SSD):	2.653
Apparent Specific Gravity:	2.694
Absorption, %:	0.92

**Location:** Ronoke Sand - Washed

**Complies:**  Y

**Remarks:**  
**Lab # 9064**

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**Reported To:** --  
**Submitted By:** Materials Testing Lab, Inc.





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**Client:** NYC Dept. of Design & Construction    **Report Date:** 11/07/08    **Page 2 of 2**  
 30-30 Thomson Avenue    **Material:** Crushed Stone  
 Long Island City, NY 11101    **Supplier:** CASA

**Project:** DDC Green Concrete Design Mixes  
**Test:** Gradation, #200 Wash, Specific Gravity and Absorption of Coarse Aggregate  
**Method:** ASTM C117, ASTM C136, ASTM C127  
**Sampled By:** MTL    **On** 11/06/08    **Delivered By:** Materials Testing Lab

**Gradation, #200 Wash**

Sieve Size	% Passing #1	ASTM C33 Size #57 Specification
1 1/2"	100.0	100
1"	100.0	95-100
3/4"	91.6	-
1/2"	43.8	25-60
3/8"	20.0	-
#4	5.8	0-10
#8	3.7	0-5
#200	2.2	0-3

**Specific Gravity and Absorption of Coarse Aggregate**

Specific Gravity (OD):	2.807
Specific Gravity (SSD):	2.825
Apparent Specific Gravity:	2.857
Absorption, %:	0.62

**Location:** Tilcon Clinton Point

**Complies:**  Y

**Remarks:**

**Lab # 9064**

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**Reported To:** --

**Submitted By:**





**C. REVISIONS 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. O'Neil Wright at (212) 460-3870.

(2) 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. Aubrey Makhanlall at (718) 977-8165.

(3) 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.

(4) CHARTER SPECTRUM OF NEW YORK CITY

There are CHARTER SPECTRUM facilities in the area of construction. The Contractor shall notify CHARTER SPECTRUM at least seventy-two (72) hours prior to the start of construction by contacting Mr. John Piazza at (718) 888-4261.

- (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. Peter Gordon, P.E., Chief, Linear Capital Program Management Division 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) 281-3933.

(3) N.Y.C. DEPARTMENT OF TRANSPORTATION

The Contractor shall notify Mr. Michael Lofesse/Ghanshyam Patel - Signal/Street Lighting Operations, 34-02 Queens Blvd., Long Island City, N.Y. 11101 at (212) 839-3799/ (212) 839-3359, 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. Daniel Grulich at (718) 760-6927.

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.

Arrangements shall be made through:

Ms. Sarah Wyss  
Director of Short Range, Bus Service Planning (SRB)  
New York City Transit  
2 Broadway, 17<sup>th</sup> Floor  
New York, N.Y. 10004  
Telephone No. (646) 252-5517  
sarah.wyss@nyct.com

- (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 (eight (8) pages) that are attached to the end of this section, and as directed by the Engineer.

- (5) **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 Troutman Street from a point approximately three hundred and seven (307) feet North of the North building line of Woodward Avenue to a point approximately fifty (50) feet South of the South building line of Flushing Avenue; In Willoughby Avenue from a point approximately seventy (70) feet South of South curb line of Cypress Avenue to South curb line of Cypress Avenue; In Cypress Avenue from the West curb line of Willoughby Avenue to the West curb line of Himrod Street; In Himrod Street from the South curb line of Cypress Avenue to a point approximately sixty five (65) feet South of the South curb line of Grandview Avenue, the restoration shall be as follows:

- (a) The entire width of roadway and six (6) inches of existing roadway subgrade shall be removed from curb to curb or edge to edge and the permanent restoration over the entire width of roadway shall consist of six (6) inches of asphaltic macadam pavement or a top course of three (3) inches of asphaltic concrete wearing course on a base course of 6" to 9" of high-early strength concrete as encountered and directed by the Engineer. New curbs and sidewalks shall be constructed where and as directed by the Engineer. The above area is approximate; the actual final area of restoration shall be determined by the Engineer.

- (2) In Troutman Street from a point approximately one hundred and forty five (145) feet South of the South building line of Cypress Avenue to a point approximately two hundred and forty six (246) feet South of the South building line of Flushing Avenue; In Willoughby Avenue from a point approximately one hundred and thirty (130) feet South of South curb line of Cypress Avenue to a point approximately seventy (70) feet South of South curb line of Cypress Avenue; In Cypress Avenue from the East curb line of Himrod Street to a point approximately eighty

(80) feet East of the East curb line of Himrod Street, the permanent pavement restoration shall be as follows:

- (a) The permanent restoration over the **trench width and cutbacks only** shall consist of a top course of one and one-half (1-1/2) inches of binder mixture on a base course of a minimum of four and one-half (4-1/2) inches of binder mixture, or a top course of a minimum of three (3) inches of binder mixture on a base course of a minimum of six (6) inches of high-early strength concrete, to match the existing pavement as directed by the Engineer.
  - (b) Finally an overlay of two (2) inches of asphaltic concrete wearing course shall be installed over the entire width of the roadway from **curb to curb** or **edge to edge** of existing roadway.
- (3) In all other street areas requiring sewer and water main work only, the restoration shall be as follows:
- (a) The permanent restoration over the **trench width and cutbacks only** shall consist of a top course of one and one-half (1-1/2) inches of asphaltic concrete wearing course on a base course of a minimum of four and one-half (4-1/2) inches of binder mixture, or a top course of one and one-half (1-1/2) inches of asphaltic concrete wearing course on a minimum of one and one-half (1-1/2) inches of binder mixture on a base course of a minimum of six (6) inches of high-early strength concrete, to match the existing pavement as directed by the Engineer.
- (4) In areas specified in paragraphs (1), (2) and (3) above, where Extra-High-Early Strength Concrete is ordered in writing by the Engineer, at the Engineer's sole discretion, as a substitute for high-early strength concrete base the Contractor shall install such as the permanent concrete base as directed by the Engineer.
- (5) 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.
- The following streets are protected by New York City Administrative Code §19-144 (Local Law No. 14):
1. Woodward Avenue from Flushing Avenue to Troutman Street.
  2. Suydam Street from St. Nicholas Avenue to Cypress Avenue. Protected until 6/14/2018
  3. Stanhope Street from St. Nicholas Avenue to Cypress Avenue.
- (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 analysis, in-place soil density tests, tack coating, eradication of temporary roadway markings, stripping or milling of pavement keys and adjustment of city-owned castings for all roadway work shall be deemed included in the prices bid for all pavement restoration items.
- (f) Payment for placement of temporary pavement marking shall be made under Item No. 6.49 - TEMPORARY PAVEMENT MARKINGS (4" WIDE).
- (g) Payment for removal of existing pavement markings shall be made under Item No. 6.53 - REMOVE EXISTING LANE MARKINGS (4"WIDE).
- (h) Payment for placement of permanent pavement marking with thermoplastic reflectorized pavement markings (crosswalk and lane dividers) shall be made under Item No. 6.44 - THERMOPLASTIC REFLECTORIZED PAVEMENT MARKINGS (4" WIDE).
- (i) Payment for pavement restoration shall be made under the following items:

<u>Item No.</u>	<u>Item</u>	<u>Payment Description</u>
4.02 AB-R	Asphaltic Concrete Wearing Course, 1-1/2" Thick	(For asphaltic concrete wearing course top course when <u>no</u> overlay is required.)
4.02 AF-R	Asphaltic Concrete Wearing Course, 2" Thick	(For 2" asphaltic concrete wearing course overlay from curb to curb or edge to edge.)
4.02 AG	Asphaltic Concrete Wearing Course, 3" Thick	(For asphaltic concrete wearing course for entire width of roadway restoration.)
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.)
6.97 A	Extra-High-Early Strength Concrete	(For concrete base course over trenches and cutbacks where ordered; and for entire width of roadway restoration where ordered.)

**D. REVISIONS 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, Section 11. Fabrication:, Page 4;  
**Add** the following to Section 11:

All steel water mains shall be spiral welded pipes, and all steel water main fittings with the exception of tees and reducers shall be fabricated from qualified spiral welded pipe. Can type pipe is not acceptable except for fabrication of tees and reducers.

- 2) **Refer** to Part 1 – Furnishing And Delivering Steel Pipes And Appurtenances 30 Inches In Diameter And Larger, Section 13. Special Fittings:, Page 5;  
**Add** the following to Section 13:

The steel reducer shall have a length of seven (7) feet for every twelve (12) inches reduction in diameter.

**END OF SECTION**

**This Section consists of thirty-one (30) pages plus forty (40) pages of attachments.**



**OCMC TRAFFIC STIPULATIONS**

**SEPTEMBER 20, 2017**

**OCMC FILE NO:** QEC-17-605  
**CONTRACT NO:** QED1023B  
**PROJECT:** REPLACEMENT OF TRUNK AND DISTRIBUTION WATER MAIN IN CYPRESS AVENUE, ETC.  
**LOCATION(S):** QUEENS

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:

**I. SPECIAL STIPULATIONS**

- A. **EMBARGOES** – A CONSTRUCTION EMBARGO WILL APPLY TO THOSE LOCATIONS BELOW WHICH FALL WITHIN THE **HOLIDAY EMBARGO** OR ANY OTHER SPECIAL EVENT EMBARGOES PUBLISHED BY THE BUREAU OF PERMIT MANAGEMENT AND CONSTRUCTION CONTROL.
- B. **BIKE LANES** – IF WORK IS IN OR AFFECTING A BIKE LANE, THE PERMITEE 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 PERMITEE SHALL NOT REMOVE, RELOCATE, DAMAGE OR DISRUPT THE OPERATION OF EXISTING BIKE SHARE STATIONS WITHOUT FIRST CONTACTING NYC BIKE SHARE AT 123 ST 855-245-3311 FOR THEIR REQUIREMENTS PRIOR TO COMMENCING WORK.
- D. **CITYBENCH:** THE PERMITEE SHALL NOT REMOVE, RELOCATE, DAMAGE OR DISRUPT AN EXISTING CITYBENCH WITHOUT FIRST CONTACTING NYC DOT AT 212-839-6569, OR VIA EMAIL AT [CITYBENCH@DOT.NYC.GOV](mailto:CITYBENCH@DOT.NYC.GOV) PRIOR TO COMMENCING WORK.
- E. **PROTECTION OF NYC DEP GREEN INFRASTRUCTURE:** THE PERMITEE SHALL TAKE PRECAUTION OF NYC DEP GREEN INFRASTRUCTURE IN THE RIGHT-OF-WAY. THE PERMITEE MUST PROTECT NYC DEP GREEN INFRASTRUCTURE DOWNSTREAM OF THE WORK OR WITHIN FIVE (5) FEET OF THE WORK AREA. THE PERMITEE MUST EMAIL NYC DEP AT [SUSTAINABILITY@DEP.NYC.GOV](mailto:SUSTAINABILITY@DEP.NYC.GOV) FOR PROTECTION REQUIREMENTS PRIOR TO COMMENCING WORK. THE PERMITEE IS RESPONSIBLE FOR RESTORATION OF DAMAGED NYC DEP INFRASTRUCTURE AS DIRECTED BY NYC DEP.
- F. **BUS STOPS** – THE PERMITEE 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 PERMITEE 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 PERMITEE 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 PERMITEE SHALL IMMEDIATELY NOTIFY NYC DOT TRAFFIC MANAGEMENT BY PHONE AT 718-433-3390 OR 718-433-3340 AND VIA EMAIL AT [TMC@DOT.NYC.GOV](mailto:TMC@DOT.NYC.GOV) AND AWAIT DIRECTION PRIOR TO CONTINUING WORK.
- I. **METERS** – THE PERMITEE SHALL NOT REMOVE OR RELOCATE PARKING METERS WITHOUT FIRST OBTAINING APPROVAL FROM NYCDOT PARKING METER DIVISION AT 718-894-8651.
- J. **TEST PITS** – THE BELOW TRAFFIC STIPULATIONS DO NOT APPLY TO TEST PIT WORK RELATED TO THIS CONTRACT. WORK HOURS AND OTHER REQUIREMENTS FOR TEST PIT OPERATIONS MAY DIFFER FROM THE STIPULATIONS IDENTIFIED BELOW. THE PERMITEE SHALL BE REQUIRED TO OBTAIN SEPARATE PERMITS RELATED TO TEST PITS.
- K. **TEMPORARY PARKING REGULATIONS/PAVEMENT MARKINGS** – THE PERMITEE 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 PERMITEE 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 PERMITEE SHALL COORDINATE ALL ACTIVITIES WITH ABUTTING PROPERTY OWNERS TO ENSURE ACCESS IS PROVIDED TO/FROM ENTRANCES/DRIVEWAYS AT ALL TIMES.

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- M. **AUTHORIZED PARKING** – PRIOR TO PERFORMING WORK WHICH IMPACTS AUTHORIZED PARKING, THE PERMITEE 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 PERMITEE 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](http://www.nyc.gov/html/dot/downloads/pdf/dot_cpis_directions.pdf)
- P. **ENHANCED MITIGATIONS**
- o **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.

## II. MAINTENANCE AND PROTECTION OF TRAFFIC

### 1. TROUTMAN STREET BETWEEN FLUSHING AVENUE AND SCOTT AVENUE

1. Work hours shall be as follows: 9am to 4pm Monday through Friday.
2. During work hours, the permittee shall maintain one 11 foot lane for traffic.
3. After working hours the permittee shall restore all travel lanes to traffic. The permittee may contain 25 linear feet, 8 feet adjacent to the curb during non-work hours. Containment is only to restrict parking and for storage of excavated material/fill.
4. The permittee shall maintain a minimum of 5 feet wide sidewalk or 5 feet wide protected pedestrian walkway in the roadway at all times.
5. The permittee must coordinate with the businesses on the block prior to mobilizing.

### 2. ONDERDONK AVENUE BETWEEN FLUSHING AVENUE AND TROUTMAN STREET

1. Work hours shall be as follows: 9am to 4pm Monday through Friday.
2. During work hours, the permittee shall maintain one 11 foot lane for traffic.
3. After working hours the permittee shall restore all travel lanes to traffic. The permittee may contain 25 linear feet, 8 feet adjacent to the curb during non-work hours. Containment is only to restrict parking and for storage of excavated material/fill.
4. The permittee shall maintain a minimum of 5 feet wide sidewalk or 5 feet wide protected pedestrian walkway in the roadway at all times.
5. If work is affecting a bike route/lane, contractor must post advance warning signs 350' & 200' prior to work zone "construction in bike lane ahead proceed with caution" and also post sign at work zone "construction in bike lane, proceed with caution". such signs shall be orange, 3'x3', diamond shape, with 4" black lettering. Signs shall be posted in accordance with federal M.U.T.C.D. Manual.
6. The permittee must coordinate with the businesses on the block prior to mobilizing.

### 3. CYPRESS AVENUE BETWEEN TROUTMAN STREET AND STARR STREET

1. Work hours shall be as follows: 9am to 4pm Monday through Friday.
2. During work hours, the permittee shall maintain two lanes for traffic with one lane in each direction.
3. After working hours the permittee shall restore all travel lanes to traffic. The permittee may contain 25 linear feet, 8 feet adjacent to the curb during non-work hours. Containment is only to restrict parking and for storage of excavated material/fill.

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4. The permittee shall maintain a minimum of 5 feet wide sidewalk or 5 feet wide protected pedestrian walkway in the roadway at all times.
5. The permittee must coordinate with the businesses on the block prior to mobilizing.

**4. CYPRESS AVENUE BETWEEN WILLOUGHBY AVENUE AND HARMAN STREET**

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1. Work hours shall be as follows: 9am to 4pm Monday through Friday.
2. During work hours, the permittee shall maintain one 11 foot lane for two-way thru traffic with flaggers at each end of the work zone.
3. After working hours the permittee shall restore all travel lanes to traffic. The permittee may contain 25 linear feet, 8 feet adjacent to the curb during non-work hours. Containment is only to restrict parking and for storage of excavated material/fill.
4. The permittee shall maintain a minimum of 5 feet wide sidewalk or 5 feet wide protected pedestrian walkway in the roadway at all times.
5. The permittee must coordinate with the businesses on the block prior to mobilizing.

**5. WILLOUGHBY AVENUE BETWEEN ST. NICHOLAS AVENUE AND CYPRESS AVENUE**

**6. SUYDAM STREET BETWEEN ST. NICHOLAS AVENUE AND CYPRESS AVENUE**

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1. Work hours shall be 9am-2pm Monday to Friday and Saturday 8am-6pm when school is in session and 7am-6pm Monday to Friday when school is in recess.
2. During work hours, the permittee shall maintain one 11 foot lane for traffic.
3. After working hours the permittee shall restore all travel lanes to traffic. The permittee may contain 25 linear feet, 8 feet adjacent to the curb during non-work hours. Containment is only to restrict parking and for storage of excavated material/fill.
4. The permittee shall maintain a minimum of 5 feet wide sidewalk or 5 feet wide protected pedestrian walkway in the roadway at all times.
5. The permittee must coordinate with the school on the block prior to mobilizing.

**7. SENECA AVENUE BETWEEN TROUTMAN STREET AND STARR STREET**

**8. SUYDAM STREET BETWEEN CYPRESS AVENUE AND END**

**9. HART STREET BETWEEN CYPRESS AVENUE AND END**

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1. Work hours shall be as follows: 7am to 6pm Monday through Friday.
2. During work hours, the permittee shall maintain one 11 foot lane for two-way thru traffic with flaggers at each end of the work zone.
3. After working hours the permittee shall restore all travel lanes to traffic. The permittee may contain 25 linear feet, 8 feet adjacent to the curb during non-work hours. Containment is only to restrict parking and for storage of excavated material/fill.
4. The permittee shall maintain a minimum of 5 feet wide sidewalk or 5 feet wide protected pedestrian walkway in the roadway at all times.

**10. HART STREET BETWEEN ST. NICHOLAS AVENUE AND CYPRESS AVENUE**

**11. STOCKHOLM STREET BETWEEN ST. NICHOLAS AVENUE AND CYPRESS AVENUE**

**12. STANHOPE STREET BETWEEN ST. NICHOLAS AVENUE AND SENECA AVENUE**

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1. Work hours shall be as follows: 7am to 6pm Monday through Friday.
2. During work hours, the permittee shall maintain one 11 foot lane for traffic.
3. After working hours the permittee shall restore all travel lanes to traffic. The permittee may contain 25 linear feet, 8 feet adjacent to the curb during non-work hours. Containment is only to restrict parking and for storage of excavated material/fill.
4. The permittee shall maintain a minimum of 5 feet wide sidewalk or 5 feet wide protected pedestrian walkway in the roadway at all times.

**13. DEKALB AVENUE BETWEEN ST. NICHOLAS AVENUE AND CYPRESS AVENUE**

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1. Work hours shall be as follows: 9am to 4pm Monday through Friday.
2. During work hours, the permittee shall maintain two lanes for traffic with one lane in each direction.



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3. After working hours the permittee shall restore all travel lanes to traffic. The permittee may contain 25 linear feet, 8 feet adjacent to the curb during non-work hours. Containment is only to restrict parking and for storage of excavated material/fill.
4. The permittee shall maintain a minimum of 5 feet wide sidewalk or 5 feet wide protected pedestrian walkway in the roadway at all times.
5. The permittee must coordinate with NYCT Bus/MTA Bus Company prior to mobilizing.

**14. DEKALB AVENUE BETWEEN CYPRESS AVENUE AND SENECA AVENUE**

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1. Work hours shall be 9am-2pm Monday to Friday and Saturday 8am-6pm when school is in session and 9am-4pm Monday to Friday when school is in recess.
2. During work hours, the permittee shall maintain two lanes for traffic with one lane in each direction.
3. After working hours the permittee shall restore all travel lanes to traffic. The permittee may contain 25 linear feet, 8 feet adjacent to the curb during non-work hours. Containment is only to restrict parking and for storage of excavated material/fill.
4. The permittee shall maintain a minimum of 5 feet wide sidewalk or 5 feet wide protected pedestrian walkway in the roadway at all times.
5. The permittee must coordinate with NYCT Bus/MTA Bus Company prior to mobilizing.
6. The permittee must coordinate with the school on the block prior to mobilizing.

**15. STOCKHOLM STREET BETWEEN CYPRESS AVENUE AND SENECA AVENUE**

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1. Work hours shall be 9am-2pm Monday to Friday and Saturday 8am-6pm when school is in session and 7am-6pm Monday to Friday when school is in recess.
2. During work hours, the permittee shall maintain one 11 foot lane for traffic.
3. After working hours the permittee shall restore all travel lanes to traffic. The permittee may contain 25 linear feet, 8 feet adjacent to the curb during non-work hours. Containment is only to restrict parking and for storage of excavated material/fill.
4. The permittee shall maintain a minimum of 5 feet wide sidewalk or 5 feet wide protected pedestrian walkway in the roadway at all times.
5. The permittee must coordinate with the schools on the block prior to mobilizing.

**16. HIMROD STREET BETWEEN ST. NICHOLAS AVENUE AND GRANDVIEW AVENUE**

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1. Work hours shall be as follows: 7am to 6pm Monday through Friday.
2. During work hours, the permittee shall maintain one 11 foot lane for traffic.
3. After working hours the permittee shall restore all travel lanes to traffic. The permittee may contain 25 linear feet, 8 feet adjacent to the curb during non-work hours. Containment is only to restrict parking and for storage of excavated material/fill.
4. The permittee shall maintain a minimum of 5 feet wide sidewalk or 5 feet wide protected pedestrian walkway in the roadway at all times.
5. The permittee must coordinate with the businesses on the block prior to mobilizing.

**17. SENECA AVENUE BETWEEN STANHOPE STREET AND HARMAN STREET**

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1. Work hours shall be as follows: 9am to 4pm Monday through Friday.
2. During work hours, the permittee shall maintain two lanes for traffic with one lane in each direction.
3. After working hours the permittee shall restore all travel lanes to traffic. The permittee may contain 25 linear feet, 8 feet adjacent to the curb during non-work hours. Containment is only to restrict parking and for storage of excavated material/fill.
4. The permittee shall maintain a minimum of 5 feet wide sidewalk or 5 feet wide protected pedestrian walkway in the roadway at all times.
5. The permittee must coordinate with NYCT Bus/MTA Bus Company prior to mobilizing.
6. The permittee must coordinate with the businesses and churches on the block prior to mobilizing.

**18. ONDERDONK AVENUE BETWEEN HIMROD STREET AND HARMAN STREET**

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1. Work hours shall be as follows: 9am to 4pm Monday through Friday.
2. During work hours, the permittee shall maintain one 11 foot lane for traffic.

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3. After working hours the permittee shall restore all travel lanes to traffic. The permittee may contain 25 linear feet, 8 feet adjacent to the curb during non-work hours. Containment is only to restrict parking and for storage of excavated material/fill.
4. The permittee shall maintain a minimum of 5 feet wide sidewalk or 5 feet wide protected pedestrian walkway in the roadway at all times.
5. If work is affecting a bike route/lane, contractor must post advance warning signs 350' & 200' prior to work zone "construction in bike lane ahead proceed with caution" and also post sign at work zone "construction in bike lane, proceed with caution". such signs shall be orange, 3'x3', diamond shape, with 4" black lettering. Signs shall be posted in accordance with federal M.U.T.C.D. Manual.
6. The permittee must coordinate with the businesses on the block prior to mobilizing.

**19. TROUTMAN STREET AND WOODWARD AVENUE**

**20. TROUTMAN STREET AND ONDERDONK AVENUE**

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1. Work hours shall be as follows: 9am to 4pm Monday through Friday.
2. During work hours, the permittee shall maintain one 11 foot lane for traffic on both roadways.
3. Full width of roadway shall be opened to traffic when site is unattended.

**21. TROUTMAN STREET AND SENECA AVENUE**

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1. Work hours shall be as follows: 9am to 4pm Monday through Friday.
2. During work hours, the permittee shall maintain one 11 foot lane for traffic on Troutman Street and one 11-foot lane for two-way thru traffic with flaggers at each end of the work zone on Seneca Avenue.
3. Full width of roadway shall be opened to traffic when site is unattended.

**22. TROUTMAN STREET AND CYPRESS AVENUE**

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1. Work hours shall be as follows: 9am to 4pm Monday through Friday.
2. During work hours, the permittee shall maintain one 11 foot lane for traffic on Troutman Street and two lanes for traffic with one lane in each direction on Cypress Avenue.
3. Full width of roadway shall be opened to traffic when site is unattended.

**23. CYPRESS AVENUE AND WILLOUGHBY AVENUE**

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1. Work hours shall be 9am-2pm Monday to Friday and Saturday 8am-6pm when school is in session and 9am-4pm Monday to Friday when school is in recess.
2. During work hours, the permittee shall maintain two lanes for traffic with one lane in each direction on Cypress Avenue west of Willoughby Avenue and one 11 foot lane for two-way thru traffic with flaggers at each end of the work zone on Cypress Avenue east of Willoughby Avenue. The permittee shall maintain one 11 foot lane for traffic on Willoughby Avenue south of Cypress Avenue and one 11 foot lane for two-way thru traffic with flaggers at each end of the work zone on Willoughby Avenue north of Cypress Avenue.
3. Full width of roadway shall be opened to traffic when site is unattended.

**24. CYPRESS AVENUE AND SUYDAM STREET**

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1. Work hours shall be 9am-2pm Monday to Friday and Saturday 8am-6pm when school is in session and 9am-4pm Monday to Friday when school is in recess.
2. During work hours, the permittee shall maintain one 11 foot lane for two-way thru traffic with flaggers at each end of the work zone on Cypress Avenue and one 11 foot lane for traffic on Suydam Street south of Cypress Avenue and one 11 foot lane for two-way thru traffic with flaggers at each end of the work zone on Suydam Street north of Cypress Avenue.
3. Full width of roadway shall be opened to traffic when site is unattended.

**25. CYPRESS AVENUE AND HART STREET**

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1. Work hours shall be as follows: 9am to 4pm Monday through Friday.

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2. During work hours, the permittee shall maintain one 11 foot lane for two-way thru traffic with flaggers at each end of the work zone on Cypress Avenue and one 11 foot lane for traffic on Hart Street south of Cypress Avenue and one 11 foot lane for two-way thru traffic with flaggers at each end of the work zone on Hart Street north of Cypress Avenue.
3. Full width of roadway shall be opened to traffic when site is unattended.

**26. CYPRESS AVENUE AND DEKALB AVENUE**

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1. Work hours shall be 9am-2pm Monday to Friday and Saturday 8am-6pm when school is in session and 9am-4pm Monday to Friday when school is in recess.
2. During work hours, the permittee shall maintain one 11 foot lane for two-way thru traffic with flaggers at each end of the work zone on Cypress Avenue and two lanes for traffic with one lane in each direction on DeKalb Avenue.
3. Full width of roadway shall be opened to traffic when site is unattended.

**27. CYPRESS AVENUE AND STOCKHOLM STREET**

**28. CYPRESS AVENUE AND STANHOPE STREET**

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1. Work hours shall be 9am-2pm Monday to Friday and Saturday 8am-6pm when school is in session and 9am-4pm Monday to Friday when school is in recess.
2. During work hours, the permittee shall maintain one 11 foot lane for two-way thru traffic with flaggers at each end of the work zone on Cypress Avenue and one 11 foot lane for traffic on the cross street.
3. Full width of roadway shall be opened to traffic when site is unattended.

**29. CYPRESS AVENUE AND HIMROD STREET**

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1. Work hours shall be as follows: 9am to 4pm Monday through Friday.
2. During work hours, the permittee shall maintain one 11 foot lane for two-way thru traffic with flaggers at each end of the work zone on Cypress Avenue and one 11 foot lane for traffic on Himrod Street.
3. Full width of roadway shall be opened to traffic when site is unattended.

**30. HIMROD STREET AND SENECA AVENUE**

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1. Work hours shall be as follows: 9am to 4pm Monday through Friday.
2. During work hours, the permittee shall maintain one 11 foot lane for traffic on Himrod Street and two lanes for traffic with one lane in each direction on Seneca Avenue.
3. Full width of roadway shall be opened to traffic when site is unattended.

**31. HIMROD STREET AND ONDERDONK AVENUE**

**32. HIMROD STREET AND WOODWARD AVENUE**

**33. HIMROD STREET AND FAIRVIEW AVENUE**

---

1. Work hours shall be as follows: 9am to 4pm Monday through Friday.
2. During work hours, the permittee shall maintain one 11 foot lane for traffic on both roadways.
3. Full width of roadway shall be opened to traffic when site is unattended.

**34. HIMROD STREET AND GRANDVIEW AVENUE**

---

1. Work hours shall be 9am-2pm Monday to Friday and Saturday 8am-6pm when school is in session and 9am-4pm Monday to Friday when school is in recess.
2. During work hours, the permittee shall maintain one 11 foot lane for traffic on both roadways.
3. Full width of roadway shall be opened to traffic when site is unattended.

**III. 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.

PROJECT: REPLACEMENT OF TRUNK AND DISTRIBUTION WATER MAIN IN CYPRESS AVENUE, ETC.; QUEENS

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- 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-PAYED, 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.
- I. 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-IN-CHARGE AND THE OCMC-STREETS.

OCMC FILE NO: QEC-17-605  
CONTRACT NO: QED1023B

SEPTEMBER 20, 2017  
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PROJECT: REPLACEMENT OF TRUNK AND DISTRIBUTION WATER MAIN IN CYPRESS AVENUE, ETC.; QUEENS

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- 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

  
**STEPHEN PINKUS**  
PROJECT MANAGER  
OCMC-STREETS



**NYC DDC QED 1023B**

**CP System Survey and Engineering  
Study of Soils and Stray Currents  
Cathodic Protection System Design**

**Prepared For:  
NYC Department of Design and Construction  
30-30 Thomson Ave  
Long Island City, NY 11101**

**Prepared By:**

**CorrTech, Inc.  
25 South Street  
Hopkinton, MA 01748**

**CorrTech, Inc. Report No. 9425-FOR-01-2  
NYC DDC Task Order 008  
FMS ID NO. GEDRC002**

**November 2017**

**Office Locations:      Hopkinton, MA      •      Queens, NY      •      Deep River, CT      •      Frederick, MD**

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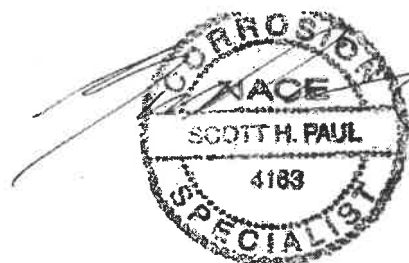
**Tel (888) 842-3944      •      Fax (508) 435-0096      •      [www.corrtech-inc.com](http://www.corrtech-inc.com)**

## STATEMENT OF LIMITATION

The conclusions presented in this document are based on the services described and not on tasks or procedures beyond the scope of the described procedures or the time and budgetary constraints imposed by the contract limitations.

CorrTech, Inc. has performed this assessment in a professional manner using that degree of skill and care exercised for similar projects under similar conditions by reputable and competent consultants, and in accordance with the procedures established within CorrTech's quality assurance, quality control protocol.

CorrTech, Inc. shall not be responsible for conditions or consequences arising from relevant facts that were concealed, withheld or not fully disclosed at the time the evaluation was performed.



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Report Prepared by:  
Scott Paul, P.E.  
NACE Corrosion Specialist No. 4163

A handwritten signature in cursive script, appearing to read "Ted Midura".

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Report Reviewed by:  
Ted Midura  
NACE CP Technologist No. 31210

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- Soil Resistivity Tabulations
- Stray Current Test Results
- Cathodic Protection Design Worksheets
- Material List - Engineers Estimate

### APPENDIX II

- Cathodic Protection Design Drawings  
QED-1023B CP-1 through QED-1023B CP-9  
QED-1023B CPD-1 through QED-1023B CPD-4



## INTRODUCTION

On December 17, 2015 CorrTech, Inc. entered into agreement with the NYC Department of Design and Construction with the expectation of providing cathodic protection design, construction support, field testing, final system testing, and as-built documentation. The QED 1023B project is located in Queens, New York, and is to be installed in Troutman, Cypress, Willoughby and Himrod Streets. It is estimated that approximately 2,135 linear feet of 48-in and 2,450 linear feet of 60-in steel pipe and associated fittings are to be installed under this contract. Three isolated segments of pipe will be protected by a cathodic protection system designed by CorrTech. Work is being completed under CorrTech, Inc. Job No. 9425, Task Order 008, and issued under contract GEDRC002, registration number 20121401831.

Field testing was performed on October 14<sup>th</sup>, 2017 to obtain soil resistivity data and to perform stray current monitoring in the approximate areas in which the new steel water main is to be installed. Data collected has been used to design the sacrificial cathodic protection system. In addition to the field testing, a cursory review of area utilities was completed.

CorrTech, Inc. provides corrosion engineering expertise in accordance with specifications section 5.04A. Furnishing, installing and testing corrosion control and/or cathodic protection System was done in accordance with New York City Department of Environmental Protection (NYCDEP) "Specifications for Trunk Main Work".<sup>1</sup>

## CONCLUSION

Based on the field testing protocol and test results obtained during the system evaluation and energization, the following conclusions are presented:

1. The average soil resistivity measured along the construction route was found to be approximately 20,800 for the 5 soil resistivity measurements for segment 1, 11,000 ohm-cm for segment 2, and 22,375 for the 8 soil resistivity measurements for segment 3. The soil resistivity study indicates that the area soils are classified as mildly corrosive to metallic structures. Steel piping installed in this area will require corrosion control measures that will include an external dielectric coating system and sacrificial anode cathodic protection that will provide adequate corrosion control for in excess of 50 years.
2. Stray current effects measured along the construction route are considered to be minimal. The magnitude of variations observed indicates existence of dynamic stray DC voltage effects near the MTA rail line crossing. A dielectric coating, galvanic anodes, and isolation of the piping from other underground utilities or metallic structures will mitigate the effects of stray current.

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<sup>1</sup> This publication includes "Special Provisions for Trunk Main Work"; and "Specification for Furnishing, Delivering and Laying Steel Pipe and Appurtenances".

## RECOMMENDATIONS

While the soils in the area are considered mildly corrosive, the effect of dynamic stray current and minimum life expectancy of 50 years must be considered. In order to protect against passive corrosion and active corrosion caused by stray current, the newly installed steel pipe should be installed with an external coating system, electrical isolation, and sacrificial anode type cathodic protection system. The following are required for the system to function as designed:

1. Flange isolation assemblies are required where the new steel pipe connects to existing piping. Insulating flanges must also be installed at all butterfly valve chambers and at any/all ductile iron or cast iron main connections. These have been indicated on the design drawings
2. The new steel piping must have a high-quality dielectric coating, such as the YG3 tape wrap coating system, for any and all steel pipe surfaces that are in contact with the surrounding soil and host pipe grout environment. The dielectric coating system should be applied to all piping associated with the air cock hydrants and blow-off assemblies.
3. Sacrificial magnesium anodes, permanent reference electrodes, pipe test wires, steel counter electrodes and flush-to-grade test stations at the locations indicated on the design drawings must be installed adjacent to the direct-buried piping, as per design drawings. All test stations must be installed on the inside of nearby curbs in order to prevent the enclosures from being subject to vehicular traffic and to make them easier to locate for future testing.
4. FRP shields must be installed around the pipe at any/all points of contact with reinforced concrete piles or similar structures. Electrical isolation between the new steel piping and other structures is of critical importance.
5. Final testing shall be performed by CorrTech personnel in concert with the REI team. Testing must verify that the installed cathodic protection system meets the criteria set forth by NACE International Standard Practice SP0169, which requires control of external corrosion on underground or submerged metallic piping systems at all locations.
6. Based on the cathodic protection design worksheets and pipe network, the following table summarizes the direct-buried pipe segments for QED 1023B:

Segment No.	Drawing	Contract	Location	60-inch Pipe Length (ft)	48-inch Pipe Length (ft)	Gnd beds	Anodes	CuSO4 Ref. Cells	Rebar
SEGMENT 1	QED1023B-CP-1, 2, 3, 4	QED 1023B	Troutman Street from Cypress Ave to Flushing Ave		2135	9	135	12	12
SEGMENT 2	QED1023B-CP-5, 6	QED 1023B	Willoughby Ave from St Nicholas Ave to Cypress Ave, Cypress Ave from Willoughby Ave to Dekalb Ave	880		4	60	5	5
SEGMENT 3	QED1023B-CP-6, 7, 8, 9	QED 1023B	Cypress Ave from Dekalb Ave to Himrod St, Himrod St from Cypress Ave to Granview Ave	1570		9	135	12	12
<b>TOTALS</b>				<b>2450</b>	<b>2135</b>	<b>22</b>	<b>330</b>	<b>29</b>	<b>29</b>

## DISCUSSION

The coated steel water main piping associated with project QED 1023B consists of 48 and 60-inch piping. Testing was completed in and around Troutman, Cypress, Willoughby and Himrod Streets, following the layout of the piping system.

The purpose of the pre-constructing testing and subsequent evaluation is to quantify the levels of stray traction DC currents and to evaluate the area soil resistivity along the proposed construction route. Stray current testing was performed in and around the area where the new pipe will be installed.

Two (2) reference cell-to-reference cell potential profile obtained in the area indicates that potential variations associated with stray currents from the MTA operation are considered minimal. The potential measurements obtained indicated variations of approximately 0.014-volts or less (as monitored over a 30-minute period). The proposed area of construction for the new steel water main being installed as part of QED1023B would not be subjected to adverse effects from stray traction DC currents. Mitigation techniques employed in this design include a dielectric coating of the pipe, the use of galvanic anodes for corrosion protection, and proper isolation of the piping segments subjected to any future stray current.

Soil resistivity measurements were obtained at fourteen (14) locations using a Collins Rod and calibrated Wheatstone Bridge. Depths obtained ranged from 3-feet to 4-feet. The data obtained is shown in Appendix I of this report. Soil resistivity ranged from a low of 11k ohm-cm to a high of 30k ohm-cm. Low resistivity areas were measured at locations that are likely subject to accumulation of road salt, among other contaminants. Average soil resistivity values were calculated from the measurements within each segment.

The measurement of soil resistivity has been used for years as an indicator of the corrosivity of soil. Soil resistivity is the reciprocal of conductivity; the lower the resistivity, the easier current flows through the soil. Of the measurable soil characteristics, resistivity is generally accepted as the primary indicator of soil corrosivity. Resistivity is a property of the bulk volume of soil and electrolytes.

Although no universal standard has been accepted, (by an organization such as the American Society for Testing and Materials or the National Association of Corrosion Engineers), it is generally agreed that the classification shown below, or other similar classifications, reflect soil corrosivity.

<u>Resistivity (Ohm-Cm)</u>	<u>Classification</u>
< 1,000	Extremely Corrosive
1,000 to 3,000	Highly Corrosive
3,000 to 5,000	Corrosive
5,000 to 10,000	Moderately Corrosive
10,000 to 25,000	Mildly Corrosive
> 25,000	Progressively Less Corrosive

The above table provides qualitative insight to the expected corrosion exposure of a metallic structure in a soil of known resistivity. Accordingly, deterioration can generally be expected to be rapid and relatively severe in soils below 1,000 ohm-cm. This does not mean, however, that severe corrosion will not occur in soils of higher resistivity. In fact, depending on chemical conditions, severe corrosion can occur in soils above 25,000 ohm-cm. The table only indicates that the latter occurrence is generally not observed.

The review of the plans for the new steel water main indicates that there are multiple ties to existing structures. The installation of insulating flanges is required for any/all tie-ins to the existing water supply network, as well as any butterfly valve connections and at any/all ductile iron or cast-iron distribution tie-in points. The installation of electrical isolation flange assemblies produces a more concise, manageable cathodic protection system.

The cathodic protection design created by CorrTech, Inc. assumes that the piping will be electrically isolated and provided with a high-quality dielectric coating system, (such as the YG III Tape Wrap coating system) and installed on all steel piping in contact with the soil environment. The piping associated with air cock hydrants and blow-offs should be coated with this coating system as well as electrically isolated from the steel trunk water main. There will be a total of 3 distinct segments associated with the QED 1023B project installation relative to cathodic protection. Please refer to Appendix II for the associated Ground Bed Design Worksheets.

## DESIGN PARAMETERS

The following cathodic protection design criteria have been applied to facilitate the final design calculations:

- Percent of bare pipe 2.00%.
- Required current density 1.0 mA/ft<sup>2</sup> for direct buried piping.
- Pipe coating quality 25,000 ohm-cm
- 50-year design life for the cathodic protection anodes
- Anode consumption rate of 17-pounds per ampere-year
- 50% anode consumption utilization factor

The magnesium anodes will be divided into groups and these groups will be distributed along the isolated piping segments. Installing the anodes in individual groups enables current distribution to the 48 and 60-in piping in each segment, and provides multiple ground beds as backup in the event of damage to one groundbed. This design considers that each groundbed would include 15, 17-pound magnesium anodes. This is the maximum number of anodes per test station per NYC DEP BWSO/ME-QA requirements.

The cathodic protection design has been prepared in accordance with NACE SP0169. NACE Standard Practice SP0169 (formerly RP0169), "Control of External Corrosion on Underground or Submerged Metallic Piping Systems". This standard practice presents procedures and practices for achieving effective control of external corrosion on buried or submerged metallic piping systems.

These recommendations are also applicable to many other buried or submerged metallic structures. They are intended for use by corrosion control personnel concerned with the corrosion of buried or submerged piping systems, including oil, gas, water, and similar structures. This standard describes the use of electrically insulating coatings, electrical isolation, and cathodic protection as external corrosion control methods. The standard contains specific provisions for the application of cathodic protection to existing bare, existing coated and to new piping systems. Also included are procedures for control of interference currents on pipelines.

Sacrificial anode cathodic protection provides protection with no external power source or rectifier. Sacrificial anodes are designed to corrode, thereby protecting the steel structure being installed. Energy for the sacrificial anode system is provided by the difference in the electrochemical level between the anode and the structure being protected. Typically, magnesium anodes are utilized to protect steel structures. The magnesium anode will corrode preferentially when connected to steel as part of a cathodic protection system. This is due to the fact that it sits at a higher electrochemical level.

A sacrificial anode installation is also a DC circuit with positive current supplied by the anodes and a return negative current supplied from the structure. The driving voltage of the sacrificial anode circuits is approximately 0.9 volt, the difference between magnesium and steel.

Ohm's Law ( $E=IR$ ) is valid for DC circuits, where E is the driving voltage, or rectifier output, of the circuit, I is the resulting current magnitude and R is the resistance of the circuit. Proper system design seeks to minimize the resistance of the circuit through the use of an anode ground bed design. Sacrificial anode systems do not provide as much energy output as the impressed current design and therefore do not function properly in some applications where cathodic protection is required. Sacrificial systems require that the structure is first coated with a tightly adhered coating system and is also electrically isolated from all other metallic structures and system components. It is important to understand that pipe coating alone is not sufficient to provide complete corrosion control. Coatings must be supplemented with cathodic protection.<sup>2</sup>

NACE requirements specify that the cathodic protection of buried steel structures must be evidenced by two criteria. Firstly, adequate steel polarization is needed to ensure that the electrochemical processes have been established in order to arrest corrosion of the steel surface. Secondly, the cathodic protection design should be constructed and implemented in order to allow for field-testing protocol. Protection levels with respect to polarization criteria can then be verified. All testing is performed in order to demonstrate that adequate cathodic polarization exists on the protected structure. Polarization criteria must take into account any significant drop in the field measurements conducted. This is important both to satisfy the regulations as well as to ensure the preservation of pipe integrity. The primary focus of testing protocol and system design is to ensure that corrosion of any exposed steel has been mitigated.

Sacrificial anode design utilizes a number of electrical parameters as input to the CorrTech, Inc. design calculation worksheet. The calculation worksheets for the total pipe section is included in this report as Appendix II.

In addition to the soil resistivity data, pipe geometry and anode dimensions and weight, the above design criteria are inputs to the design. The anode-to-remote earth resistance calculation is based on Dwight's Equation for a single horizontal anode.

$$R = \left( \frac{0.00521\rho}{L} \right) \left( \ln \left( \frac{4L^2 + 4L\sqrt{s^2 + L^2}}{dS} \right) + \frac{S}{L} - \frac{\sqrt{S^2 + L^2}}{L} - 1 \right)$$

Where

R = resistance in ohms

L = anode length in feet

S = twice the depth of anode in feet

d = anode diameter in feet

$\rho$  = resistivity in ohm-cm

ln is the natural logarithm function

<sup>2</sup> However, as defined in Sections 4 and 5 of NACE SP0169, cathodic protection can be provided to uncoated structures under certain conditions.

This calculation provides the resistance for one (1) anode set in the measured average soil resistivity. The resistance to ground of the pipe is also calculated in the worksheet. Both the theoretical current requirement based on 1.0 mA/Ft<sup>2</sup> applied to the 2.00% of bare steel pipe and the circuit resistance of the pipe and anodes are calculated in the worksheet. The number of anodes to be installed is a variable input in the worksheet that determines total anode circuit resistance based on parallel resistance theory. The check in the design calculation worksheet indicates that the comparison of theoretical current compared to the field-tested circuit resistance, (as determined by the number of anodes to be installed), is between 0 and 25% and is in agreement.

The final total anode current output value is used to calculate the life of the anode system based on the magnesium anode consumption rate and 50% utilization. The life expectancy of anodes on these cathodically protected piping segments is in excess of 100 years.

Based on the cathodic protection design worksheets and pipe network, the following table summarizes the direct buried pipe segments for QED 1023B:

Segment No.	Drawing	Contract	Location	60-inch Pipe Length (ft)	48-inch Pipe Length (ft)	Grd beds	Anodes	CuSO <sub>4</sub> Ref. Cells	Rebar
SEGMENT 1	QED1023B-CP-1, 2, 3, 4	QED 1023B	Trouman Street from Cypress Ave to Flushing Ave		2135	9	135	12	12
SEGMENT 2	QED1023B-CP-5, 6	QED 1023B	Willoughby Ave from St Nicholas Ave to Cypress Ave, Cypress Ave from Willoughby Ave to Dekalb Ave	880		4	60	5	5
SEGMENT 3	QED1023B-CP-6, 7, 8, 9	QED 1023B	Cypress Ave from Dekalb Ave to Hinrod St, Hinrod St from Cypress Ave to Grandview Ave	1570		9	135	12	12
TOTALS				2450	2135	22	330	29	29

## **APPENDIX I**

- **Soil Resistivity Tabulations**
- **Stray Current Test Results**
- **Cathodic Protection Design Worksheet, Segments 1 through 3**
  - **Material List- Engineers Estimate**



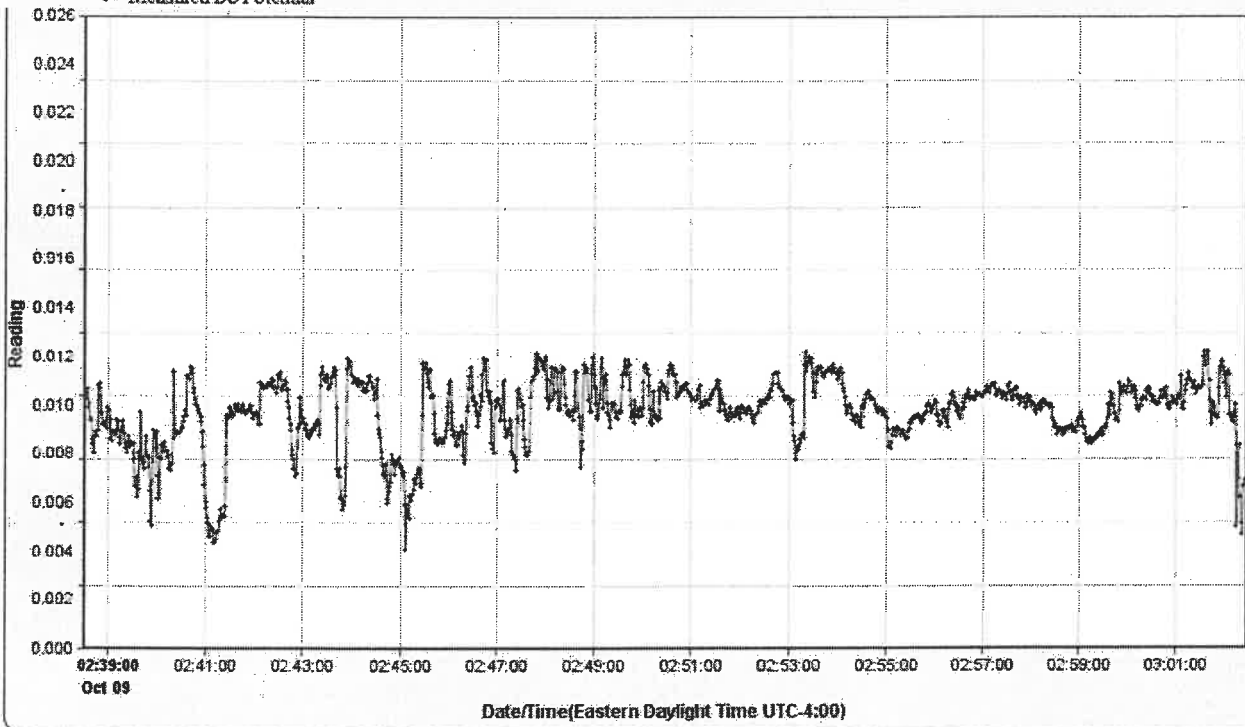
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Project:	Task Order 008 - QED1023B	Date:	10/10/2017

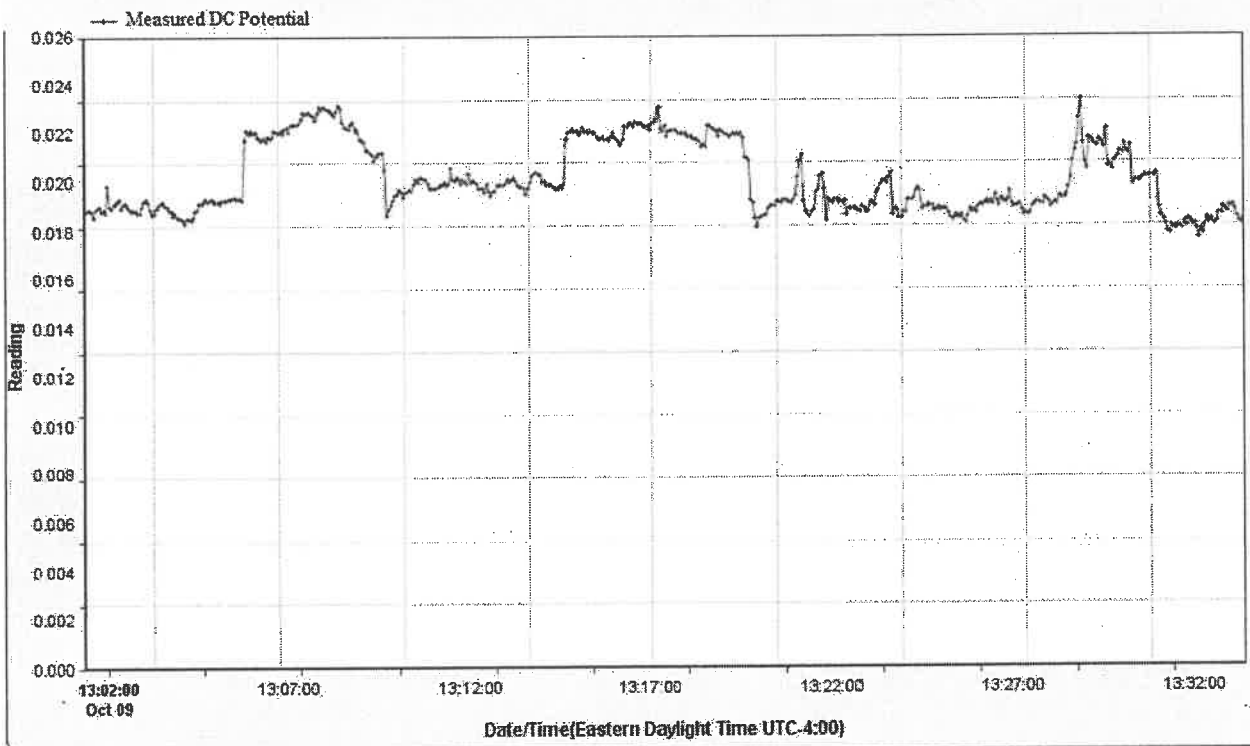
Test Number	Resistivity (ohm-cm)	Location	Segment	Soil Type
1	22,000	Troutman St and Metropolitan Parkway		Grass
2	25,000	Troutman St and Woodward Ave		Trebed
3	18,000	Troutman St and Onderdonk Ave		Grass
4	26,000	Troutman St and Cypress Ave		Trebed
5	13,000	Troutman St and St. Nicholas St		Trebed
6	11,000	Cypress Ave and Willoughby Ave		Grass
7	24,000	St Nicholas and Willoughby Ave		Trebed
8	30,000	Cypress Ave and Hart St		Trebed
9	14,000	Cypress Ave and Stockholm St		Grass
10	23,000	Cypress Ave and Stanhope St		Grass
11	19,000	Himrod St and Cypress Ave		Trebed
12	22,000	Himrod St and Seneca Ave		Grass
13	24,000	Himrod St and Woodward Ave		Grass
14	23,000	Himrod St and Grandview Ave		Tree bed
<b>AVG:</b>	<b>21,000</b>	<b>(ohm-cm)</b>	<b>TOTAL AVERAGE (1-14)</b>	

### NYC DDC - QED1023B - Stray Current Monitoring at Cypress Avenue and Himrod Street

← Measured DC Potential



### NYC DDC - QED1023B - Stray Current Monitoring at Troufman Street and Cypress Avenue



CorrTech Inc., Groundbed Design Worksheet  
 NYC DDC Water Trunk Main Cathodic Protection

Client: NYC DDC Project: QED-1023B  
 Date: 10/25/17 Troutman Street from Cypress Ave to Flushing A  
 Description: 2,135-ft of 48-in Water Trunk Main  
 Segment: 1

Structure Calculations		ENTER	SURFACE AREA
Length of pipe	ft	2135	26,816 ft <sup>2</sup>
Diameter	ft	4	
Length of pipe	ft		0 ft <sup>2</sup>
Diameter	ft		
			26,816 ft <sup>2</sup>

Circuit Calculations			
Soil Resistivity (ohm-cm)		20,800 ohm-cm	*average of 5 resistivities
Coating Quality (% bare)		2.00%	
Pipe Surface requiring protection		536.31 FT <sup>2</sup>	
Pipe electrically isolated (yes/no)		yes	
Coating quality OHM-FT <sup>2</sup>		25000 OHM-FT <sup>2</sup>	
Pipe to Earth Resistance		0.93 OHM	
Theoretical Current Required (ma/ft <sup>2</sup> )		1 mA/ft <sup>2</sup>	
Theoretical Current Requirements		0.5363 AMPS	

Anode Parameters			Individual anode resistance
Anode Type		Magnesium anode, prepackaged	20.11 square of S <sub>2</sub> +L <sub>2</sub> factor
Anode Weight (lbs)		17	51.40 resistivity x .0052 factor
Anode Ingot Diameter (feet)		0.292 see notes below	1.51 log value
Anode Ingot Length (feet)		2.104 see notes below	123.93 Horizontal anode resistance
2 time anode depth (feet)		20	156.83 Vertical anode resistance

Circuit Resistance Current Requirements					
Anode Resistance to Earth	plug in Resistance value	123.93	OHMS		
Driving Potential (v)		0.9	VOLTS		
Individual anode output		0.007	AMPS	Check	Between 0% and 25%
Number of anodes to be installed		135	9.0 gndbeds	9.31%	Yes
Total circuit resistance		1.85	OHMS		
Current output of system		0.4864	AMPS		
Consumption Rate (lb/A-yr)		17.00			
Anode life based on anodes to be installed		138.77	YEARS		considers 50% anode efficiency

Design conforms to the following standards:  
 National Association of Corrosion Engineers (NACE)  
 Standard Recommended Practice SP 0169 latest revision



**NOTES on anode dimensions:** Bare anode dimensions were considered due to the fact that the life of the anode is more dependent on the actual anode size than the packaging backfill.

The backfill may leech into surrounding earth as time progresses, which will cause depletion not related to the anode performance or cathodic protection mechanisms.

Other than erosion / leeching effects described above, the anode backfill is NOT consumable and will remain stable throughout the operational life of the anode.

Dwight's formula, utilized above, does not consider the inherent resistivity of the backfill.

For this reason, bare anode dimensions, when factored into the calculations, offer more conservative estimates as to the number of anodes required.

CorrTech Inc., Groundbed Design Worksheet  
 NYC DDC Water Trunk Main Cathodic Protection

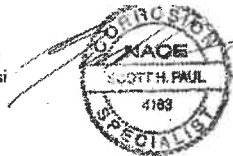
Client: NYC DDC Project: QED-1023B  
 Date: 10/25/17 Willoughby Ave from St Nicholas Ave to Cypress  
 Description: 880-ft of 60-in Water Trunk Main Cypress Ave from Willoughby Ave to Dekalb Ave  
 Segment: 2

Structure Calculations	ENTER	SURFACE AREA
Length of pipe ft	880	13,816 ft <sup>2</sup>
Diameter ft	5	
Length of pipe ft		0 ft <sup>2</sup>
Diameter ft		
		13,816 ft <sup>2</sup>
<b>Circuit Calculations</b>		
Soil Resistivity (ohm-cm)	11,000 ohm-cm	*average of 1 resistivities
Coating Quality (% bare)	2.00%	
Pipe Surface requiring protection	276.32 FT <sup>2</sup>	
Pipe electrically isolated (yes/no)	yes	
Coating quality OHM-FT <sup>2</sup>	25000 OHM-FT <sup>2</sup>	
Pipe to Earth Resistance	1.81 OHM	
Theoretical Current Required (ma/ft <sup>2</sup> )	1 mA/ft <sup>2</sup>	
Theoretical Current Requirements	0.2763 AMPS	0.165792

Anode Parameters		Individual anode resistance
Anode Type	Magnesium anode, prepackaged	20.11 square of S <sup>2</sup> +L <sup>2</sup> factor
Anode Weight (lbs)	17	27.18 resistivity x .0052 factor
Anode Metal Diameter (feet)	0.292 see notes below	1.51 log value
Anode Metal Length (feet)	2.104 see notes below	65.54 Horizontal anode resistance
2 time anode depth (feet)	20	82.94 Vertical anode resistance

Circuit Resistance Current Requirements			
Anode Resistance to Earth	plug in Resistance value	65.54	OHMS
Driving Potential (v)		0.9	VOLTS
Individual anode output		0.014	AMPS
Number of anodes to be installed		60	4.0 gnbeds
Total circuit resistance		2.90	OHMS
Current output of system		0.3101	AMPS
Consumption Rate (lb/A-yr)		17.00	
Anode life based on anodes to be installed		96.73	YEARS
			considers 50% anode efficiency

Design conforms to the following standards:  
 National Association of Corrosion Engineers (NACE)  
 Standard Recommended Practice SP 0169 latest revision



**NOTES on anode dimensions:** Bare anode dimensions were considered due to the fact that the life of the anode is more dependent on the actual anode size than the packaging backfill.

The backfill may leech into surrounding earth as time progresses, which will cause depletion not related to the anode performance or cathodic protection mechanisms.

Other than erosion / leaching effects described above, the anode backfill is NOT consumable and will remain stable throughout the operational life of the anode.

Dwight's formula, utilized above, does not consider the inherent resistivity of the backfill.

For this reason, bare anode dimensions, when factored into the calculations, offer more conservative estimates as to the number of anodes required.

CorrTech Inc., Groundbed Design Worksheet  
 NYC DDC Water Trunk Main Cathodic Protection

Client: NYC DDC Project: QED-1023B  
 Date: 10/25/17 Cypress Ave from Dekalb Ave to Himrod St  
 Description: 1,570-ft of 60-in Water Trunk Main Himrod St from Cypress Ave to Granview Ave  
 Segment: 3

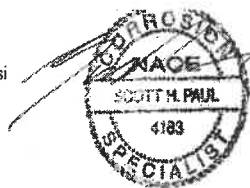
Structure Calculations		ENTER	SURFACE AREA
Length of pipe	ft	1570	24,649 ft <sup>2</sup>
Diameter	ft	5	
Length of pipe	ft		0 ft <sup>2</sup>
Diameter	ft		
			24,649 ft <sup>2</sup>
<b>Circuit Calculations</b>			
Soil Resistivity (ohm-cm)		22,375 ohm-cm	*average of 8 resistivities
Coating Quality (% bare)		2.00%	
Pipe Surface requiring protection		492.98 FT <sup>2</sup>	
Pipe electrically isolated (yes/no)		yes	
Coating quality OHM-FT <sup>2</sup>		25000 OHM-FT <sup>2</sup>	
Pipe to Earth Resistance		1.01 OHM	
Theoretical Current Required (ma/ft <sup>2</sup> )		1 mA/ft <sup>2</sup>	
Theoretical Current Requirements		0.4930 AMPS	0.295788

Anode Parameters		Individual anode resistance
Anode Type	Magnesium anode, prepackaged	20.11 square of S <sup>2</sup> +L <sup>2</sup> factor
Anode Weight (lbs)	17	55.30 resistivity x .0052 factor
Anode Metal Diameter (feet)	0.292 see notes below	1.51 log value
Anode Metal Length (feet)	2.104 see notes below	<b>133.32 Horizontal anode resistance</b>
2 time anode depth (feet)	20	<b>168.70 Vertical anode resistance</b>

Circuit Resistance Current Requirements			
Anode Resistance to Earth	plug in Resistance value	<b>133.32</b>	OHMS
Driving Potential (v)		0.9	VOLTS
Individual anode output		0.007	AMPS
Number of anodes to be installed		135	9.0 gndbeds
Total circuit resistance		2.00	OHMS
Current output of system		0.4496	AMPS
Consumption Rate (lb/A-yr)		17.00	

Anode life based on anodes to be installed: 150.13 YEARS considers 50% anode efficiency

Design conforms to the following standards:  
 National Association of Corrosion Engineers (NACE)  
 Standard Recommended Practice SP 0169 latest revisi



NOTES on anode dimensions: Bare anode dimensions were considered due to the fact that the life of the anode is more dependent on the actual anode size than the packaging backfill.

The backfill may leech into surrounding earth as time progresses, which will cause depletion not related to the anode performance or cathodic protection mechanisms.

Other than erosion / leaching effects described above, the anode backfill is NOT consumable and will remain stable throughout the operational life of the anode.

Dwight's formula, utilized above, does not consider the inherent resistivity of the backfill.

For this reason, bare anode dimensions, when factored into the calculations, offer more conservative estimates as to the number of anodes required.

Corr-Tech Inc.  
 Client  
 Project  
 Contract  
 Prepared

Task Order 008  
 NYC DDC  
 Queens, NY on Troutman, Cypress, Willoughby and Himrod  
 QED 1023B  
 10/25/2017

Quantity and Cost Estimating

<b>TOTAL-FURNISH AND INSTALL CATHODIC PROTECTION</b>	<b>\$228,062.00</b>
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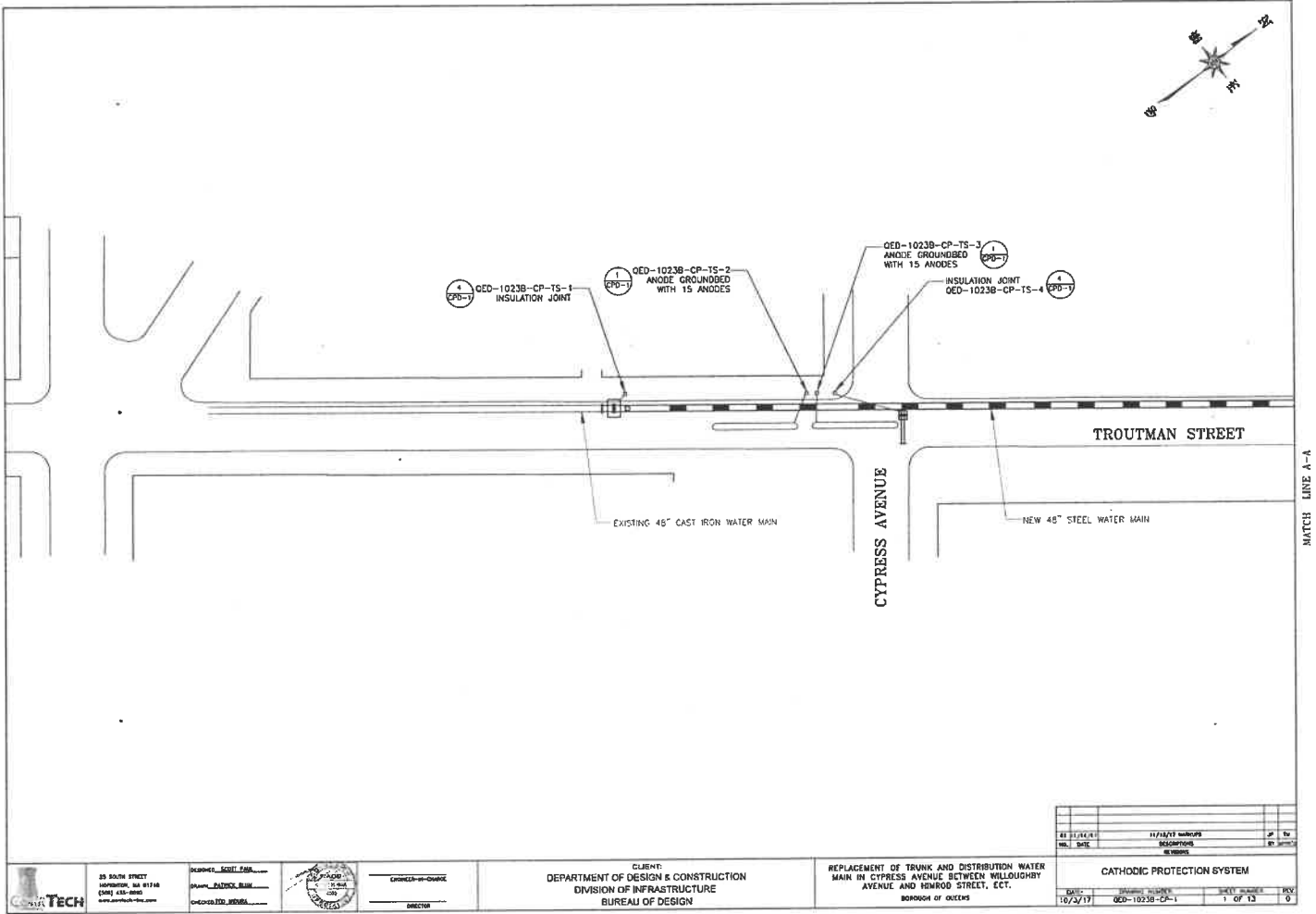
Item No	Description	Quantity	Measure	Unit Price Materials	Sub Total mtl	Unit Price Installation	Sub Total Inst	Total
1	17-pound high potential magnesium anodes	334	each	\$225.00	\$75,150.00	\$175.00	\$58,450.00	\$133,600.00
2	Stuart Steel Type S Splice Kit	168	each	\$26.00	\$4,368.00	\$50.00	\$8,400.00	\$12,768.00
3	AWG 8 HMWPE, Black (anode header cable)	8,800	feet	\$0.90	\$7,920.00	\$1.00	\$8,800.00	\$16,720.00
4	AWG 10 THWN, Red	3,880	feet	\$0.42	\$1,629.60	\$1.00	\$3,880.00	\$5,509.60
5	AWG 10 THWN, White	910	feet	\$0.42	\$382.20	\$1.00	\$910.00	\$1,292.20
6	AWG 10 THWN, Blue	130	feet	\$0.42	\$54.60	\$1.00	\$130.00	\$184.60
7	AWG 10 THWN, Green	130	feet	\$0.42	\$54.60	\$1.00	\$130.00	\$184.60
8	Thermite welds, CA-15	78	each	\$2.80	\$218.40	\$50.00	\$3,900.00	\$4,118.40
9	Copper-copper sulfate reference cells w/50-ft HMWPE 12 yellow	29	each	\$500.00	\$14,500.00	\$50.00	\$1,450.00	\$15,950.00
10	Counter electrodes w/50-ft AWG 12 THWN Purple	29	each	\$48.00	\$1,392.00	\$50.00	\$1,450.00	\$2,842.00
11	Burdly KS-17 Copper Split bolts (for anode splicing and test stations)	177	each	\$4.30	\$761.10	\$50.00	\$8,850.00	\$9,611.10
12	3M Supper 88-Black Electrical Tape (used with splice kit)	30	each	\$5.00	\$150.00	\$0.00	\$0.00	\$150.00
13	3M 130 C Rubber Tape (used with splice kit)	30	each	\$5.00	\$150.00	\$0.00	\$0.00	\$150.00
14	Cans 3M scotchkote electrical coating FD (used with splice kit)	25	each	\$50.00	\$1,250.00	\$0.00	\$0.00	\$1,250.00
15	Royston Handi-Caps (cover thermite weld)	78	each	\$4.25	\$331.50	\$0.00	\$0.00	\$331.50
16	Test station housing (NYC DEP Standard)	30	each	\$500.00	\$15,000.00	\$250.00	\$7,500.00	\$22,500.00
17	Acrylic Tags for Labeling Test Stations	30	sets	\$20.00	\$600.00	\$10.00	\$300.00	\$900.00
					\$123,912.00		\$104,150.00	\$228,062.00

## **APPENDIX II**

- **Cathodic Protection Design Drawings**

**QED-1023B-CP-1 through QED-1023B-CP-9**  
**QED-1023B-CPD-1 through QED-1023B-CPD-4**





25 SOUTH STREET  
 HOUSTON, TX 77002  
 (713) 631-1000  
 www.earthtech.com

DESIGNED BY: SCOTT FARR  
 DRAWN BY: DAVID BLUM  
 CHECKED BY: EDWARD...



Contract No. 2016-0000000000  
 DIRECTOR

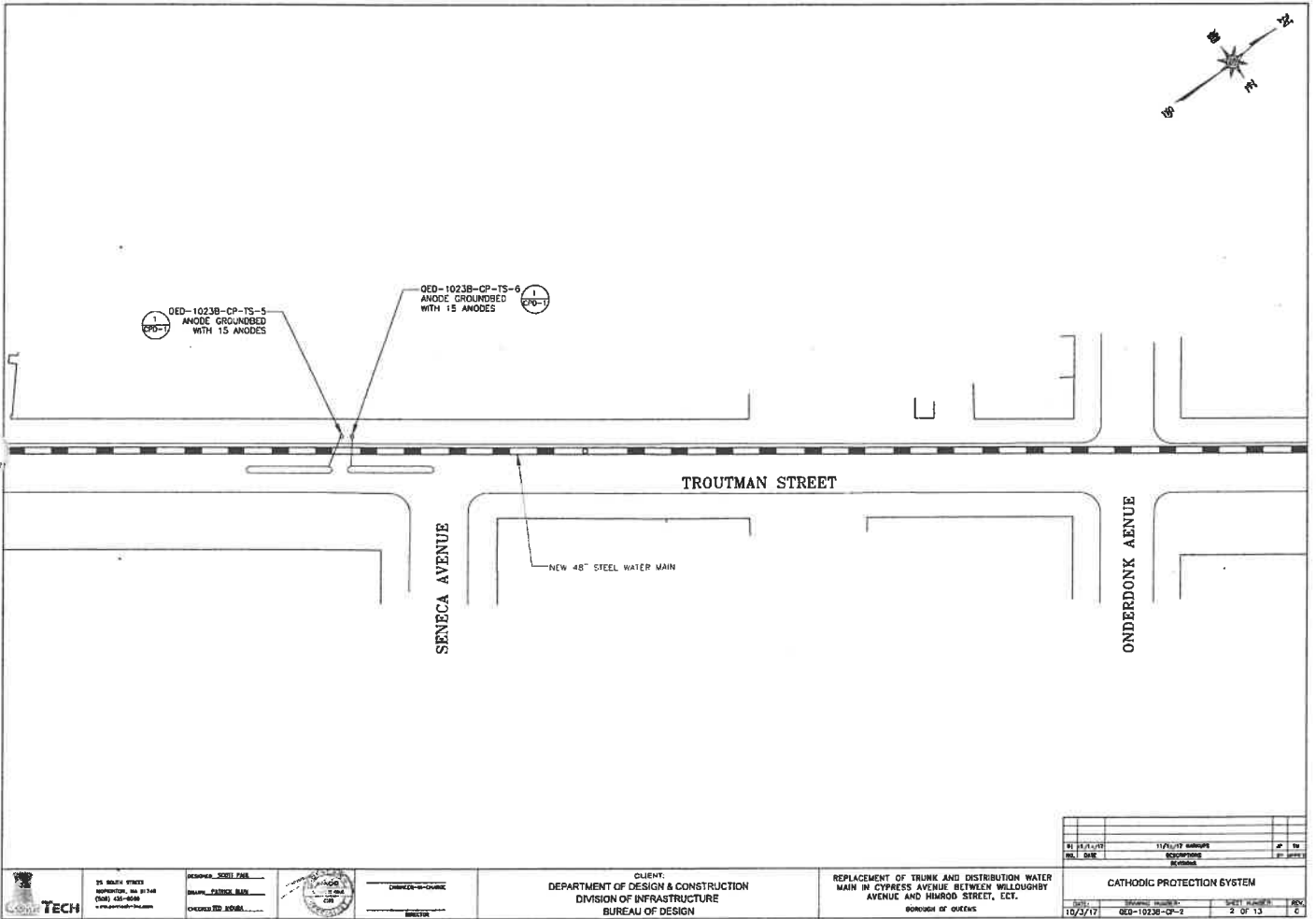
CLIENT  
 DEPARTMENT OF DESIGN & CONSTRUCTION  
 DIVISION OF INFRASTRUCTURE  
 BUREAU OF DESIGN

REPLACEMENT OF TRUNK AND DISTRIBUTION WATER  
 MAIN IN CYPRESS AVENUE BETWEEN WILLOUGHBY  
 AVENUE AND BIRROD STREET, ETC.  
 BOROUGH OF OCEANS

NO.	DATE	BY	DESCRIPTION

DATE	ISSUED FOR	SHEET NUMBER	TOTAL SHEETS
10/2/17	OED-10238-CP-1	1 OF 13	0



1  
OED-10238-CP-TS-5  
ANODE GROUNDED  
WITH 15 ANODES  
EPO-1

1  
OED-10238-CP-TS-6  
ANODE GROUNDED  
WITH 15 ANODES  
EPO-1

TROUTMAN STREET

SENECA AVENUE

ONDERDONK AVENUE

NEW 48" STEEL WATER MAIN

M. VE A-A

MATCH LINE B-B



15 SOUTH STREET  
ROSELAND, NJ 07068  
TEL: 908-988-8888  
www.pennoni.com

SENECA ST/1756  
DRAIN, WATER MAIN  
CHECKED: KGA

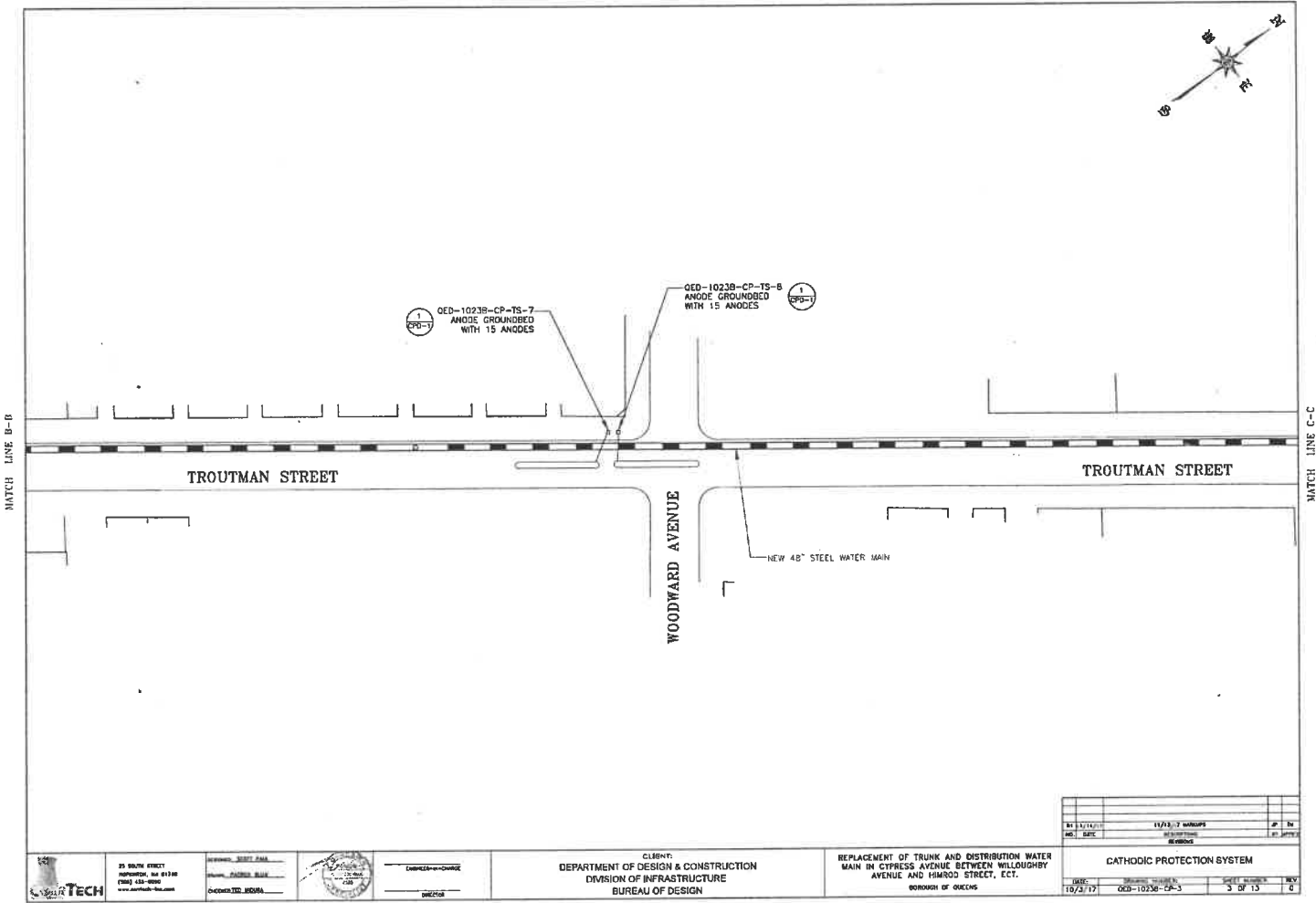


DESIGNED BY: CHINESE  
DRAWN BY: CHINESE

CLIENT:  
DEPARTMENT OF DESIGN & CONSTRUCTION  
DIVISION OF INFRASTRUCTURE  
BUREAU OF DESIGN

REPLACEMENT OF TRUNK AND DISTRIBUTION WATER  
MAIN IN CYPRESS AVENUE BETWEEN WILLOUGHBY  
AVENUE AND HINROD STREET, ECT.  
BOROUGH OF OVERLAND

DATE: 10/2/17	ISSUE NO: 020-10238-CP-2	SHEET NUMBER: 2 OF 13	SCALE: E
CATHODIC PROTECTION SYSTEM			
DATE: 11/19/19	ISSUE NO: 020-10238-CP-2	SHEET NUMBER: 2 OF 13	SCALE: E
CATHODIC PROTECTION SYSTEM			



25 SOUTH STREET  
 HARRISBURG, PA 17106  
 (717) 633-1000  
 www.southtech.com

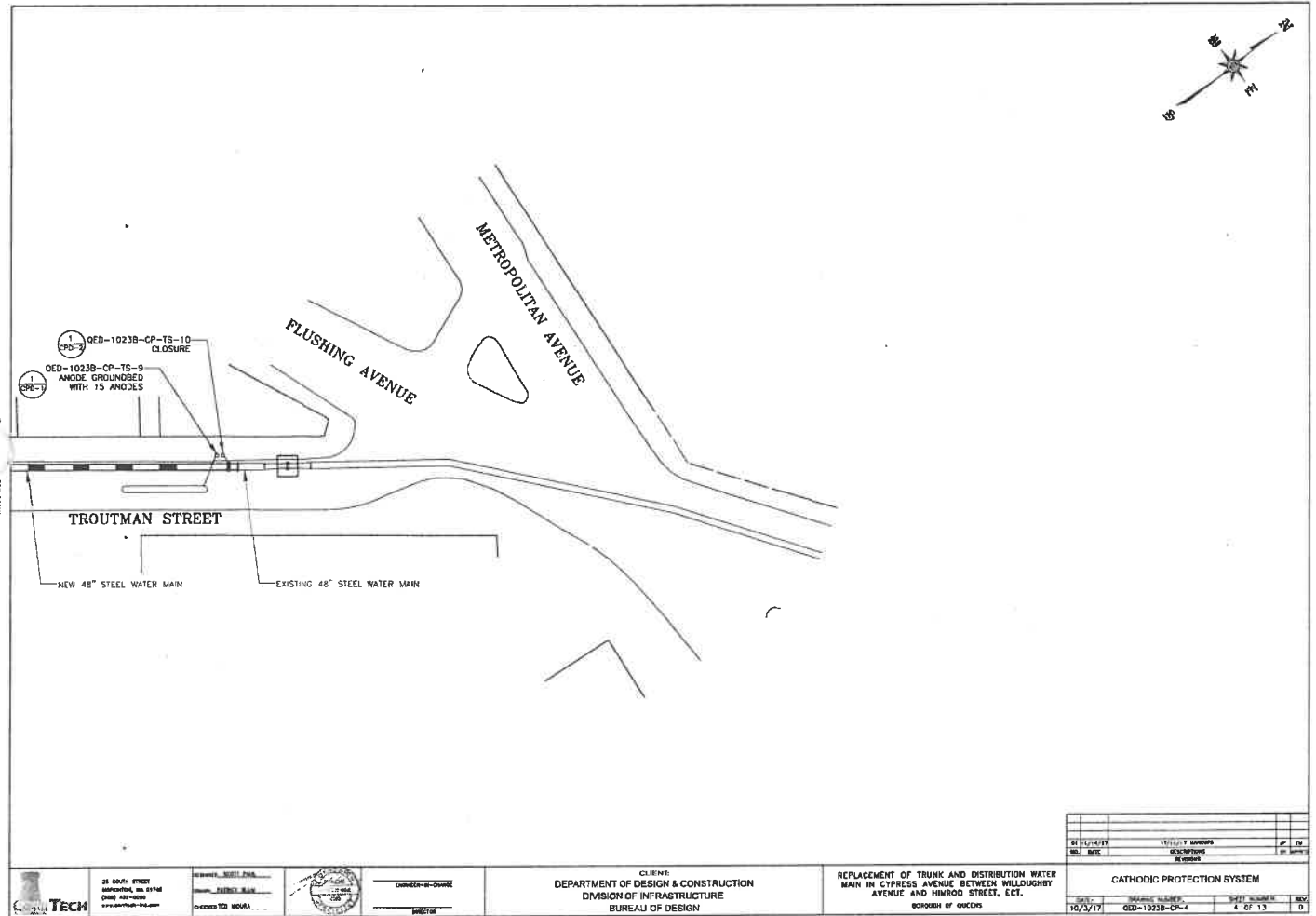
DESIGNED BY: [Signature]  
 CHECKED BY: [Signature]  
 DATE: [Signature]

CLIENT:  
 DEPARTMENT OF DESIGN & CONSTRUCTION  
 DIVISION OF INFRASTRUCTURE  
 BUREAU OF DESIGN

REPLACEMENT OF TRUNK AND DISTRIBUTION WATER MAIN IN CITYPRESS AVENUE BETWEEN WILLOUGHBY AVENUE AND HIRROD STREET, ETC.  
 BOROUGH OF GOEBELS

CATHODIC PROTECTION SYSTEM

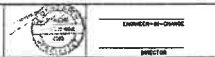
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NO: [Signature]	DATE: 10/3/17	DESCRIPTION: OED-10238-CP-3	SHEET NUMBER: 5 OF 15



DATE	10/3/17	BY	QED-10238-CP-4	SCALE	4 OF 13	NO.	0
REVISION		BY		SCALE		NO.	
DATE		BY		SCALE		NO.	



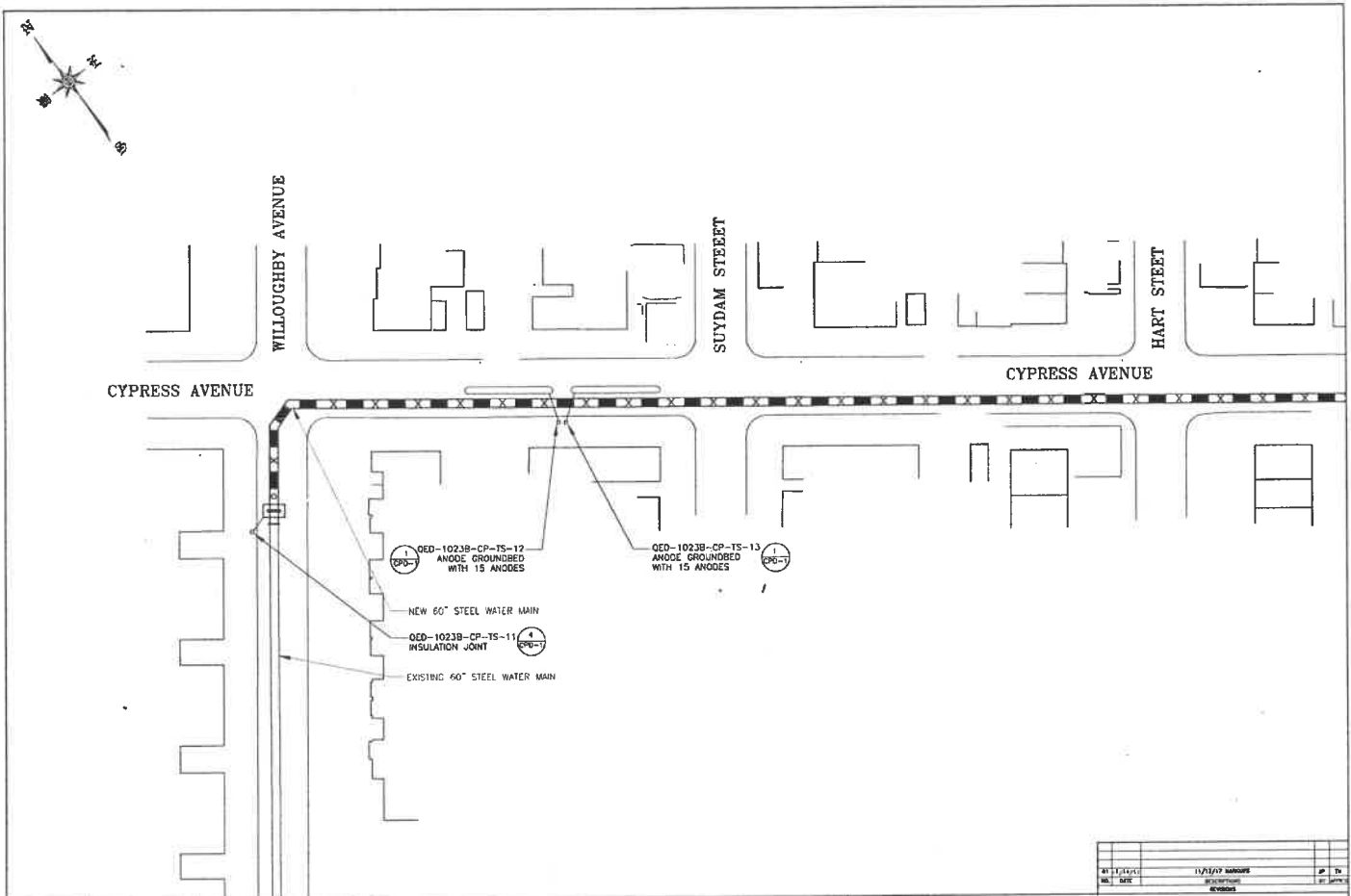
25 80th STREET  
 BROOKLYN, NY 11214  
 (718) 335-1000  
 www.earthtech.com



CLIENT:  
 DEPARTMENT OF DESIGN & CONSTRUCTION  
 DIVISION OF INFRASTRUCTURE  
 BUREAU OF DESIGN

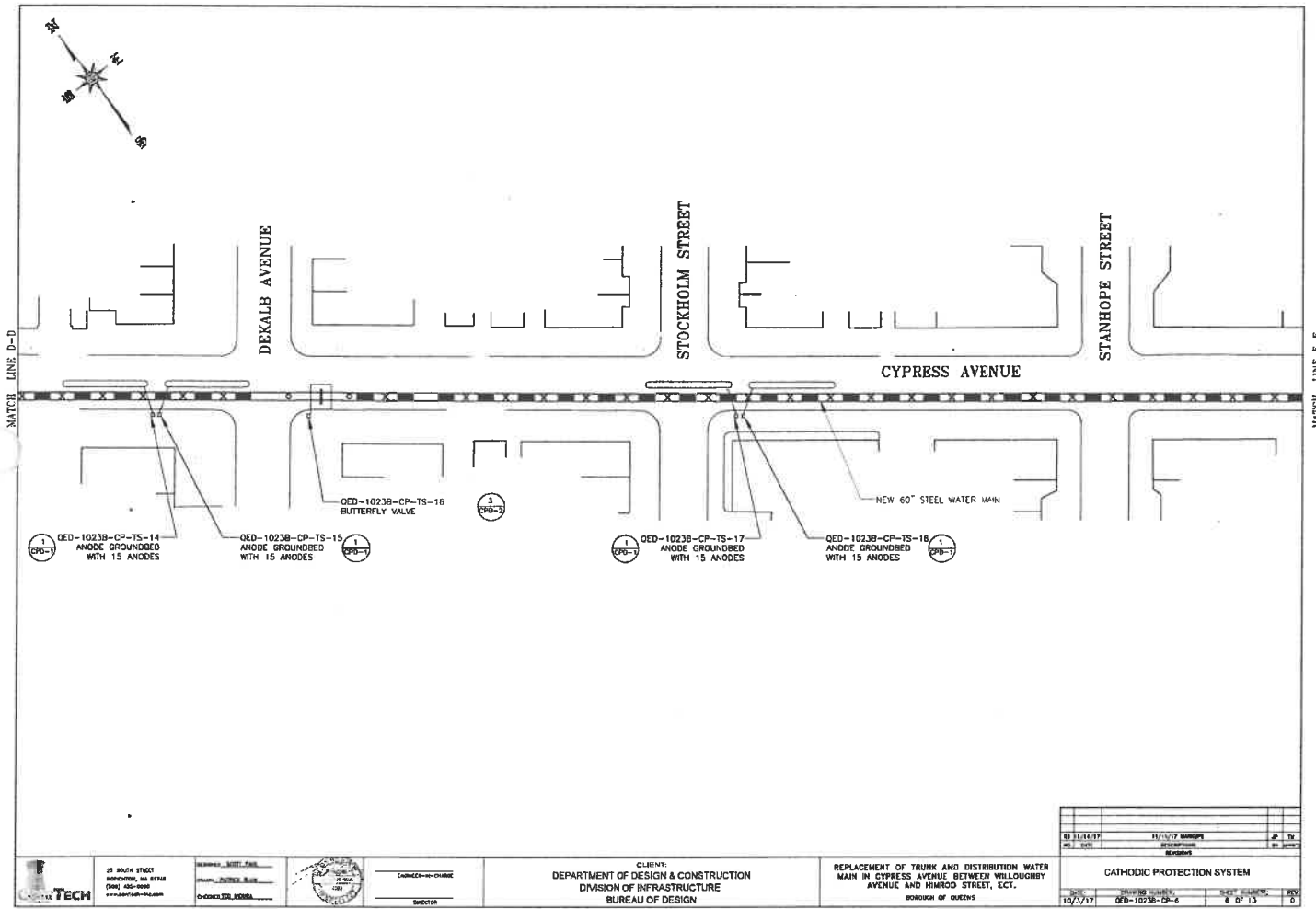
REPLACEMENT OF TRUNK AND DISTRIBUTION WATER  
 MAIN IN CYPRESS AVENUE BETWEEN WILLOUGHBY  
 AVENUE AND HINROD STREET, ETC.  
 BOROUGH OF QUEENS

CATHODIC PROTECTION SYSTEM



MATCH LINE D-D

	25 SOUTH STREET SPRINGFIELD, MA 01108 PHONE: 413-455-9999 WWW.MARTINI-TECH.COM	NUMBER: 10238-CP-5 DRAWN: [Signature] CHECKED: [Signature]		DATE: 10/23/17 PROJECT:	CLIENT: DEPARTMENT OF DESIGN & CONSTRUCTION DIVISION OF INFRASTRUCTURE BUREAU OF DESIGN	REPLACEMENT OF TRUNK AND DISTRIBUTION WATER MAIN IN CYPRESS AVENUE BETWEEN WILLOUGHBY AVENUE AND HIRROD STREET, CCT. BOROUGH OF QUEENS	CATHODIC PROTECTION SYSTEM DATE: 10/23/17 PROJECT NUMBER: 10238-CP-5 SHEET NUMBER: 6 OF 13 REV: 0
	10/23/17 10/23/17 10/23/17 10/23/17		10/23/17 10/23/17 10/23/17 10/23/17		10/23/17 10/23/17 10/23/17 10/23/17		10/23/17 10/23/17 10/23/17 10/23/17



MATCH LINE D-D

MATCH LINE E-E

1  
CP-1

OED-10238-CP-TS-14  
ANODE GROUND BED  
WITH 15 ANODES

OED-10238-CP-TS-15  
ANODE GROUND BED  
WITH 15 ANODES

OED-10238-CP-TS-16  
BUTTERFLY VALVE

3  
CP-2

1  
CP-1

OED-10238-CP-TS-17  
ANODE GROUND BED  
WITH 15 ANODES

OED-10238-CP-TS-18  
ANODE GROUND BED  
WITH 15 ANODES

1  
CP-1

NEW 60" STEEL WATER MAIN

**TECH**  
25 SOUTH STREET  
ROSELAND, NJ 07068  
(908) 435-0000  
www.techcorp.com

DESIGNED BY: \_\_\_\_\_  
CHECKED BY: \_\_\_\_\_  
DATE: \_\_\_\_\_

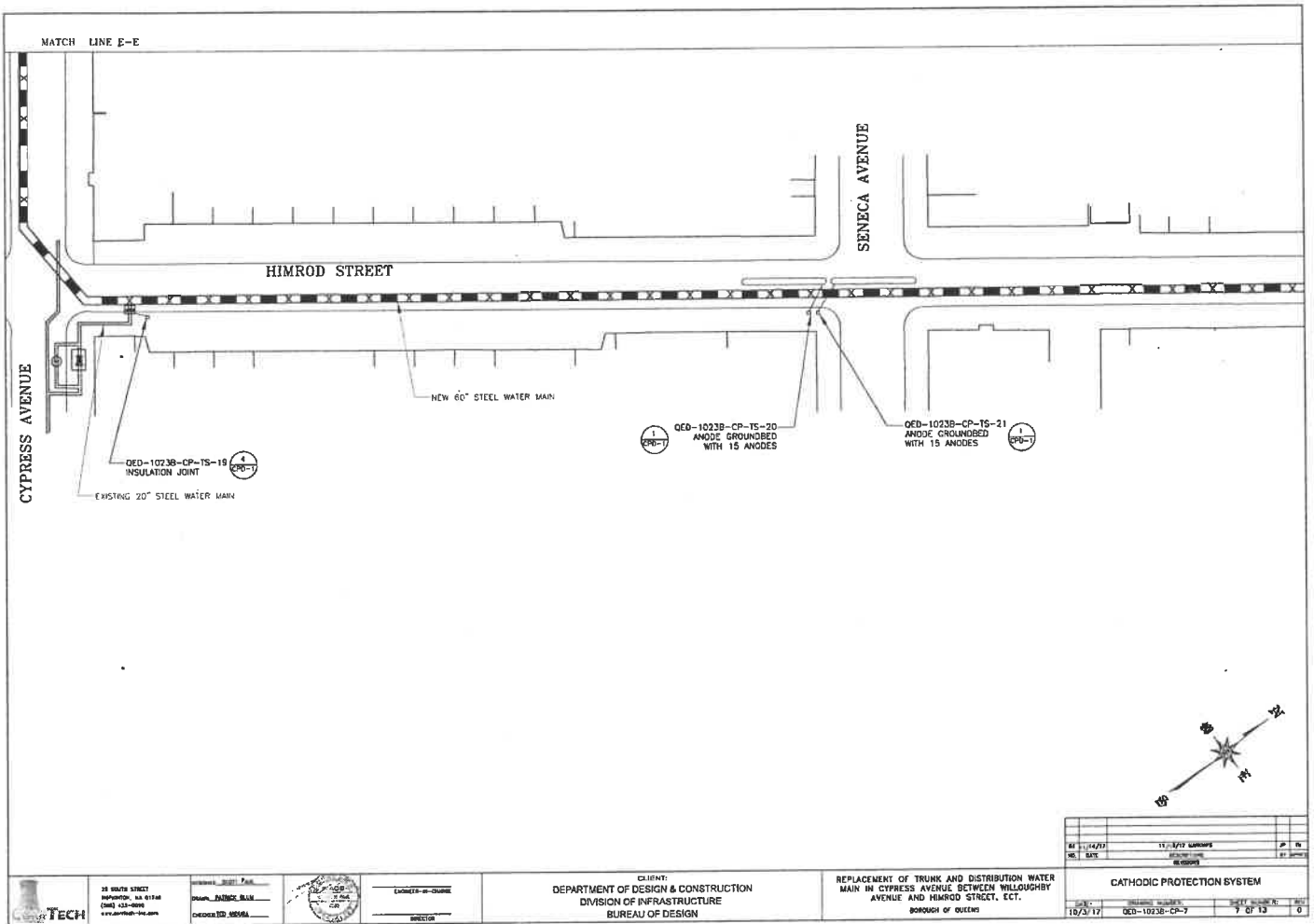


CONTRACT NO: \_\_\_\_\_  
PROJECT NO: \_\_\_\_\_  
SHEET NO: \_\_\_\_\_

CLIENT:  
DEPARTMENT OF DESIGN & CONSTRUCTION  
DIVISION OF INFRASTRUCTURE  
BUREAU OF DESIGN

REPLACEMENT OF TRUNK AND DISTRIBUTION WATER  
MAIN IN CYPRESS AVENUE BETWEEN WILLOUGHBY  
AVENUE AND HIRSH STREET, ECT.  
BOROUGH OF DUNELLS

DATE: 10/11/17	PROJECT NUMBER: 10238-CP-6	SHEET NO: 6 OF 13
DATE: 10/11/17	PROJECT NUMBER: 10238-CP-6	SHEET NO: 6 OF 13



38 SOUTH STREET  
 WILMINGTON, DE 19804  
 (302) 433-0000  
 www.techinc.com

DESIGNED BY: [Signature]  
 CHECKED BY: [Signature]  
 DATE: 10/12/17



PROJECT NO.: [Blank]  
 DRAWING NO.: [Blank]  
 SHEET NO.: [Blank]

CLIENT:  
 DEPARTMENT OF DESIGN & CONSTRUCTION  
 DIVISION OF INFRASTRUCTURE  
 BUREAU OF DESIGN

PROJECT:  
 REPLACEMENT OF TRUNK AND DISTRIBUTION WATER  
 MAIN IN CYPRESS AVENUE BETWEEN WILLOUGHBY  
 AVENUE AND HIMROD STREET, ETC.  
 BOROUGH OF OUTWELL

DATE: 10/12/17  
 SHEET NO.: 7 OF 13  
 SCALE: [Blank]

NO.	DATE	BY	DESCRIPTION
01	10/12/17	11/11/17	ISSUED FOR PERMIT
02	10/12/17	11/11/17	ISSUED FOR CONSTRUCTION

MATCH LINE F-F

MATCH LINE C-C

ONDERDONK AVENUE

WOODWARD AVENUE

HIMROD STREET

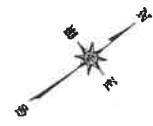
NEW 60" STEEL WATER MAIN

QED-10238-CP-TS-22  
ANODE GROUNDED  
WITH 15 ANODES

QED-10238-CP-TS-23  
ANODE GROUNDED  
WITH 15 ANODES

QED-10238-CP-TS-24  
ANODE GROUNDED  
WITH 15 ANODES

QED-10238-CP-TS-25  
ANODE GROUNDED  
WITH 15 ANODES



DATE	11/10/17	BY	JK
SCALE	AS SHOWN	CHECKED	JK
PROJECT			



25 SOUTH STREET  
PHILADELPHIA, PA 19104  
TEL: 215-597-8800  
WWW.ASSESS-PA.COM

PROJECT NO. 10238  
SHEET NO. 5



ENGINEER-IN-CHARGE  
DIRECTOR

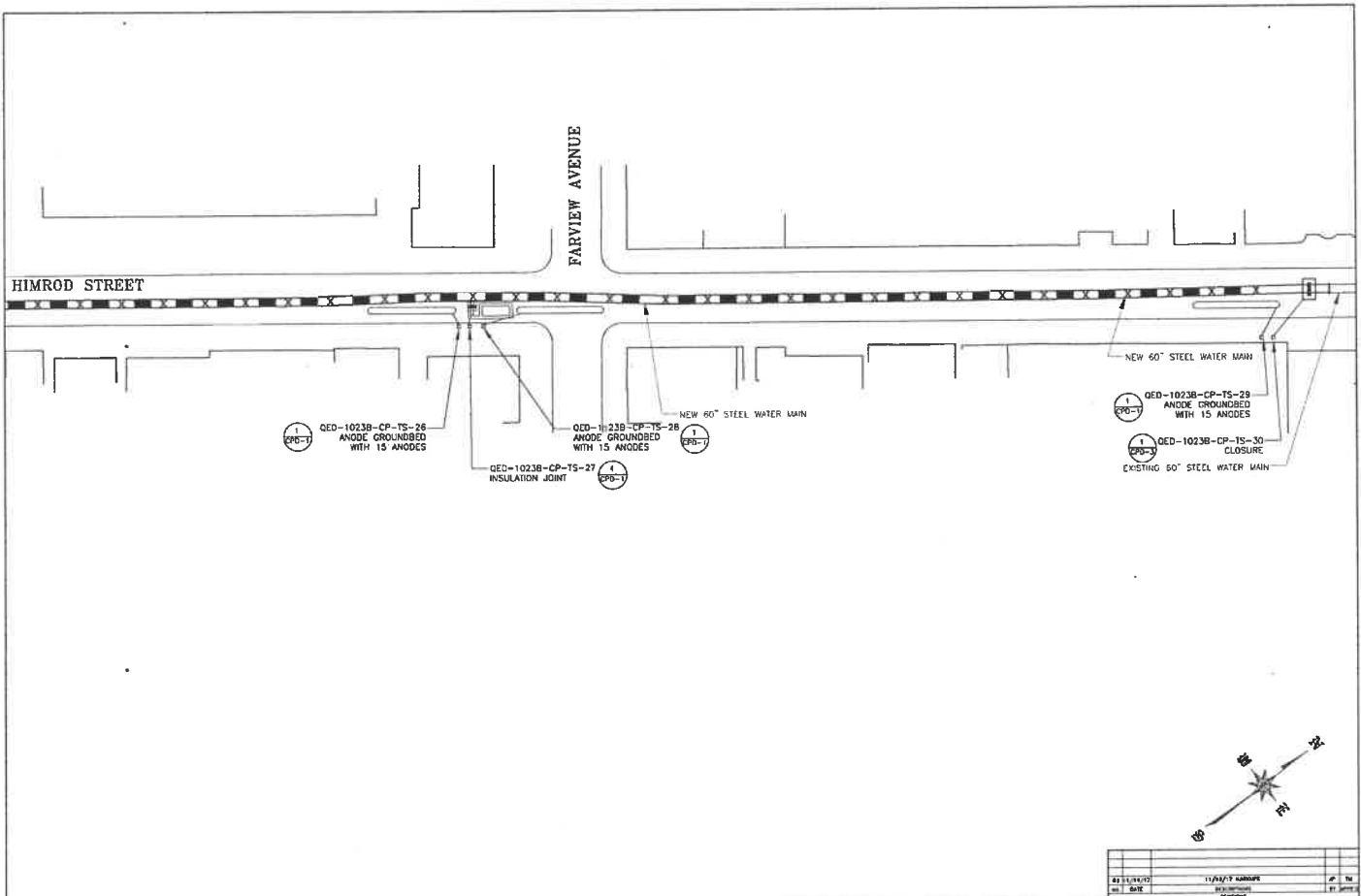
CLIENT  
DEPARTMENT OF DESIGN & CONSTRUCTION  
DIVISION OF INFRASTRUCTURE  
BUREAU OF DESIGN

REPLACEMENT OF TRUNK AND DISTRIBUTION WATER  
MAIN IN CYPRESS AVENUE BETWEEN WILLOUGHBY  
AVENUE AND HIMROD STREET, ECT.  
BOROUGH OF QUAKERS

CATHODIC PROTECTION SYSTEM			
DATE	18/2/17	SHEET NUMBER	8 OF 13
PROJECT	QED-10238-CP-S	REV.	0



MATCH LINE C-C



25 BROAD STREET  
 BOSTON, MA 02108  
 (617) 437-0000  
 www.martech-loc.com

DESIGNED BY: SCOTT FINE  
 DRAWN BY: PAUL BLAN  
 CHECKED BY: JOHN



ENGINEER-IN-CHARGE  
 DIRECTOR

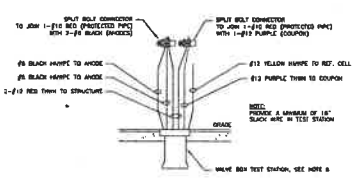
CLIENT:  
 DEPARTMENT OF DESIGN & CONSTRUCTION  
 DIVISION OF INFRASTRUCTURE  
 BUREAU OF DESIGN

REPLACEMENT OF TRUNK AND DISTRIBUTION WATER MAIN IN CITRUS AVENUE BETWEEN WILLOUGHBY AVENUE AND HIMROD STREET, ETC.  
 BUREAU OF OUTREACH

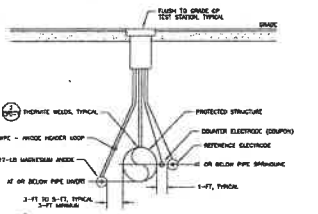
DATE		BY	
10/7/17	DESIGNED	SCOTT FINE	PE
	DRAWN	PAUL BLAN	DR
	CHECKED	JOHN	DIR

**CATHODIC PROTECTION SYSTEM**

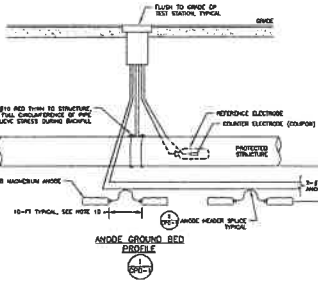
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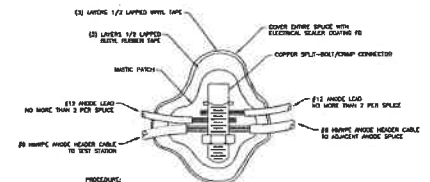
ANODE GROUND BED TEST STATION WIRING



A-A GROUND BED TEST STATION PROFILE



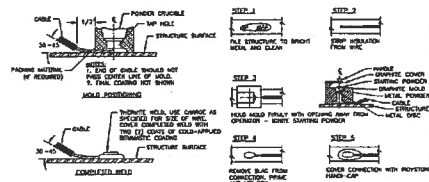
ANODE GROUND BED PROFILE



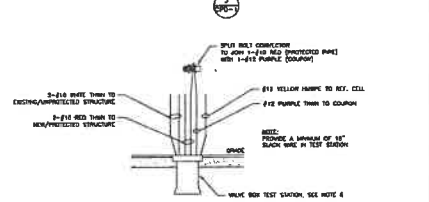
**PROCEEDINGS:**  
 CUT BACK CABLE INSULATION TO SUFFICIENT LENGTH WITHOUT REMOVING COPPER WIRE STRINGS AND CABLE INSULATION ALONG 3-IN FROM END OF THE WIRE.  
 CONNECT WIRES WITH SPLIT-BOLT CONNECTOR OR C-RING AND SECURE WITH PROPER TORQUE OR RECOMMENDED CRIMP PRESSURE.  
 DISINTEGRATE THE WIRE CONNECTION WITH THE RESINUS WASTE SOLDERING PASTE, MAKING THE ANODE SEALANT SO THAT IT CONTACTS THE ENTIRE SPACE AND BOND IS COMPLETELY TO ITSELF TO FORM THE PRIMARY BARRIER TO WATER ENTRY.  
 WELD TOGETHER WIRE ON SOLDER 4300 RUBBER TAPE AROUND THE ANODE PATCH WITH 1/2-IN OVERLAP, PROVIDE MINIMUM OF 2 LAYERS OF RUBBER TAPE.  
 UNDER TIGHTEN, WRAP WITH TAPE AROUND RUBBER TAPE WITH 1/2-IN OVERLAP, PROVIDE MINIMUM OF 3 LAYERS OF WRAP TAPE.  
 COVER ENTIRE SPACE AND 1-IN OF WIRE CHAINS EXTENDING SPACE WITH 34 SECONDARY ELECTRICAL COATING AND RELAY TO DRY.  
 ANODE LEAD WIRES ARE TO BE SPLICED ON ONE (1) SIDE OF THE ANODE CABLE LOOP ONLY.

ANODE TO ANODE CABLE SPLICE

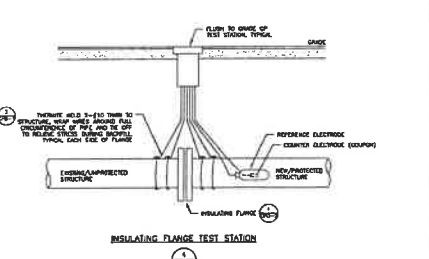
- NOTES:**
- IDENTIFY TEST STATION NUMBERS IN ACCORDANCE WITH THESE DESIGN DRAWINGS.
  - ALL BARED STEEL PIPE AND COMPONENTS SHALL BE TAPIC COATED IN ACCORDANCE WITH PROJECT SPECIFICATION AND TESTED PRIOR TO BACKFILL.
  - ANODE LOCATIONS ARE GENERAL AND MAY BE RELOCATED TO SUIT FIELD CONDITIONS UPON APPROVAL OF THE ENGINEER.
  - NOTE THAT LOCATIONS OF OTHER UNDERGROUND UTILITIES ARE NOT DEPICTED ON THIS DRAWING. CONTRACTOR IS RESPONSIBLE FOR LOCATING THESE UTILITIES PRIOR TO COMMENCING WORK.
  - PROVIDE 1-IN BY 2-IN ACRYLIC LABEL ENGRAVED WITH LABELS ACCORDING TO THE TEST STATION NUMBERS ON DESIGN DRAWINGS WITH 1/4-IN WHITE LETTERS ON A BLACK BACKGROUND THAT SHALL BE ZIP TIED TO THE TWO RED WIRE STRINGS.
  - TEST STATIONS TO BE INSTALLED IN SIDEWALK, 1-FT FROM CURBLINE. IF INSTALLED IN UNPAVED AREA, SET TEST STATION BOX IN 24-IN BY 36-IN BY 2-IN CONCRETE PAD, AS PER AISC STANDARD SPEC. FINAL LOCATIONS TO BE SHOWN ON AS-BUILT PLANS.
  - TEST STATIONS TO BE PROVIDED BY CONTRACTOR.
  - FINAL LOCATIONS OF ALL ANODES, CABLES, REFERENCE ELECTRODES, AND COUNTER ELECTRODES TO BE SHOWN ON AS-BUILT PLANS.
  - ROUTE ALL WIRING FOR EACH TEST STATION IN A 1/2" SCHEDULE 40 PVC CONDUIT, FROM STEEL WATER MAIN TO TEST BOX.
  - GREEN FIELD CONDITIONS, ANODE SPACING MAY BE REDUCED TO NO LESS THAN TWO FEET OR ANODES MAY BE PLACED ON EITHER SIDE OF MAIN.
  - ANODES TO BE BACKFILLED IN CLEAN, WATERSOFT SOIL, FREE OF DEBRIS, ROCKS, AND FLOW FILL. WHERE INSULATING FLANGE IS IN VAULT, RUN WIRES OUT OF VAULT INTO TEST STATION ON CURB.



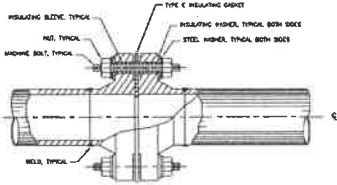
THERMITE WELD



INSULATING FLANGE TEST STATION WIRING

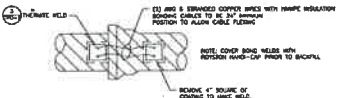


INSULATING FLANGE TEST STATION

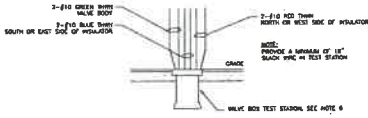


FOR BRICK BUILT INSULATED FLANGES THE FOLLOWING PROCEDURE APPLIES:  
 THIS PROCEDURE APPLIES TO ALL BRICK INSULATED FLANGES.  
 PROVIDE PROTECTIVE COVERING OF INSULATED FLANGE COMPONENTS AS FOLLOWS:  
 THE FLANGE AND GASKET AREA OF THE INSULATED FLANGES SHALL BE FIRST TYPED AROUND THE OUTER FLANGE EDGE WITH OILY COLOR APPLIED PCLD AND KETCH TAP.  
 WELD IN PLACE OVER THE GAP OF FLANGE INTERFACE, PUNCH INSERT/VENT HOLES IN THE FLANGE SIDE AS APPROPRIATE 1" TO 2" HOLE SIZES.  
 TURN THE COUPLER 90° FOR DESIRED READ.  
 INSERT THE COUPLER 7/8" THROUGH THE HOLE AND PUMP CALKAL LATEX, COATING FLOWS OVER INSULATED SURF ON BOTH SIDES.  
 BRIDGE PROCEEDING UNTIL THE SPACE BETWEEN THE FLANGES IS FILLED COMPLETELY WITH NO HOLES REMAIN. FLANGE EDGE AND SURFORS OUT CALKAL MATERIAL.  
 COVER THE FLANGE EDGES WITH COLE APPLIED FELT AND STICK TAPE TO SEAL FLANGE/GASKET MATERIAL. DO NOT WRAP THE BOLTED AREA OF THE INSULATING FLANGE.  
 FILL SHAP ON BOLT COVER WITH CALKAL AND SHAP ON TO EACH BOLT AND BUT ASSEMBLY.  
 INSTALL INSULATING FLANGE TEST STATION COMPONENTS AND TERMINATE IN TEST SECTION.

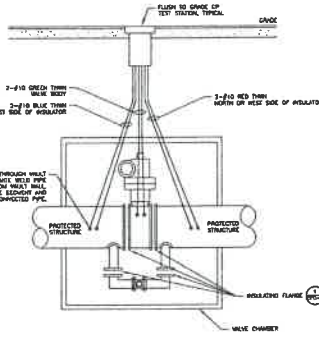
**INSULATING FLANGE**



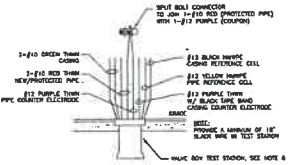
**BONDING OF MECHANICAL JOINT**



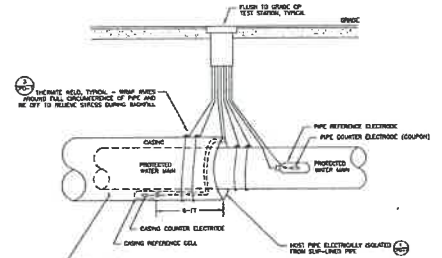
**BUTTERFLY VALVE TEST STATION WIRING**



**BUTTERFLY VALVE**



**CASING ISOLATION TEST STATION WIRING**



**CASING ISOLATION**



NO.	DATE	BY	CHKD.
17	11/17/17	SCOTT PARR	SCOTT PARR
18	11/17/17	SCOTT PARR	SCOTT PARR



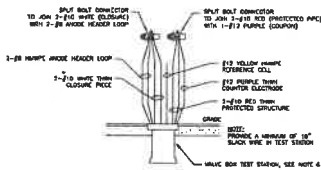
38 SOUTH STREET  
 BOSTON, MA 02174  
 617-452-8888  
 www.scott-parr.com

DESIGNED BY: SCOTT PARR  
 DRAWN BY: PATRICK BLUM  
 CHECKED BY: JESSICA  
 DATE: 11/17/17

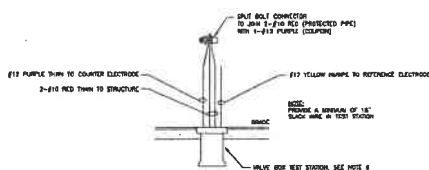
CLIENT:  
 DEPARTMENT OF DESIGN & CONSTRUCTION  
 DIVISION OF INFRASTRUCTURE  
 BUREAU OF DESIGN

REPLACEMENT OF TRUNK AND DISTRIBUTION WATER MAIN IN CYPRESS AVENUE BETWEEN WILLOUGHBY AVENUE AND HIRROD STREET, ECT.  
 BOROUGH OF QUEENS

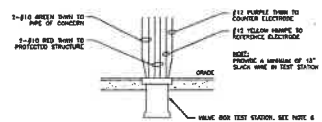
CATHODIC PROTECTION SYSTEM  
 SHEET NUMBER: 11 OF 13  
 DATE: 10/3/17  
 PROJECT NUMBER: 065-10236-CPD-2  
 KEY: 0



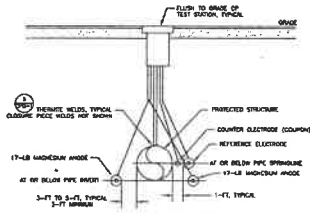
CLOSURE TEST STATION WIRING



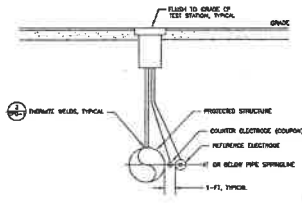
IN-LINE TEST STATION WIRING



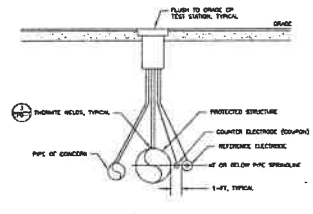
INTERFERENCE TEST STATION WIRING



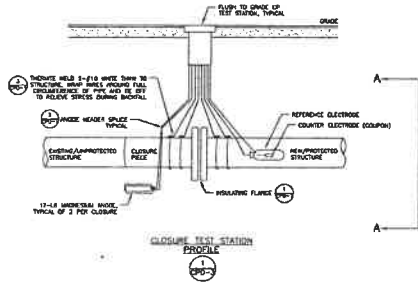
A-A CLOSURE TEST STATION PROFILE



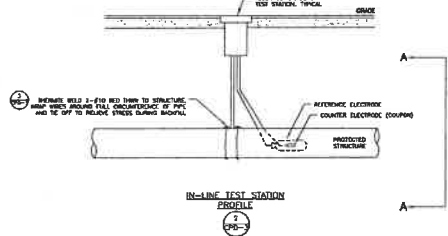
A-A IN-LINE TEST STATION PROFILE



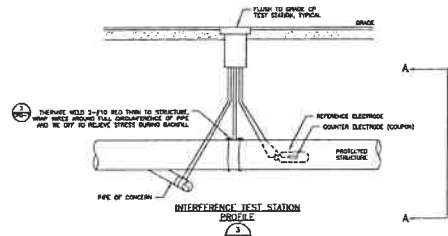
A-A INTERFERENCE TEST STATION PROFILE



CLOSURE TEST STATION PROFILE



IN-LINE TEST STATION PROFILE



INTERFERENCE TEST STATION PROFILE

REVISION	DATE	BY	CHK	APP
11/11/17		MB/MS		
11/11/17		MB/MS		
10/5/17		MB/MS		



25 SOUTH STREET  
 HOUSTON, TX 77002  
 (713) 639-0000  
 www.tech-engineers.com



DESIGNED: SCOTT P. ...  
 DRAWN: ...  
 CHECKED: ...

CLIENT:  
 DEPARTMENT OF DESIGN & CONSTRUCTION  
 DIVISION OF INFRASTRUCTURE  
 BUREAU OF DESIGN

REPLACEMENT OF TRUNK AND DISTRIBUTION WATER  
 MAIN IN CYPRESS AVENUE BETWEEN WILLOUGHBY  
 AVENUE AND HINWOOD STREET, ETC.  
 BOROUGH OF QUEENS

CATHODIC PROTECTION SYSTEM  
 SHEET NUMBER: ...  
 SHEET REVISION: ...  
 DATE: 12 OF 13

**PROJECT SPECIFIC SPECIFICATIONS:**

The Pipe Installation Contractor shall utilize and follow the cathodic protection design and specifications that have been developed for this piping network and indicated in the design package generated by the NY DDC.

The contractor shall work with a cathodic protection materials supplier who has been providing technical support in the NYC Boroughs for a minimum of 10-years to assure material requirements and performance. The material supplier shall provide on-site manufacturer representation to the Contractor during the construction project.

The Contractor shall provide new materials and equipment unless otherwise specifically indicated and specified. New materials and equipment to be provided shall be essentially the standard catalogued products of a manufacturer regularly engaged in the manufacture of such products. Materials and equipment shall meet the applicable requirements of the Specification. All materials and equipment shall have evidence of UL approval when UL Standards exist.

The Contractor shall use magnesium anodes, installed along the water main as shown on the approved design drawings. The system shall include associated test stations, insulating joints and all wiring and connections.

All sections of the water main installed under this contract shall be isolated from the remainder of the distribution system at the contract limits by installing flange joints or insulating couplings. The water main being installed shall be divided into isolated sections by installing joints. Insulating joints shall be installed at butterfly valves, close pieces, blow-offs and air cock connections.

The raw water main shall be isolated from streets, conduits, reinforcing rods, casings and all other structures by physical means, or by the use of high strength dielectric materials. Test stations shall be placed at pipeline crossings, as required or approved by the Engineer.

Under NO circumstances shall the water main be floated on a casing or steel reinforcing or other buried metallic structures not part of the cathodic protection system.

At locations where casings are required, the pipeline shall be isolated from the casing by installing approved insulating devices such as non-metallic spacers.

Eighteen inches of slack shall be left on each wire in each test station. In the event a wire is less than eighteen inches it shall be extended with a wire of the same color and same gage or lower gage with an insulated electrical connector approved by the Engineer.

Test station wiring shall be placed in PVC conduit at all roadway crossings.

**TESTING:**

To ensure that the cathodic protection system is functioning properly, and that the criteria for protection as stated in NACE Recommended Practice SP0169 (latest revision) are met, field tests shall be performed. by the NYC DDC NACE Corrosion Specialist in concert with and in support of the REI team. DENBWSO-CPOA shall be informed about the testing and, at its option, may visit the interim testing, however the responsible party for the contract i.e. DDC or DEP shall witness all final testing.

During installation, testing shall be performed on each anode grounded and isolated pipe section or group of sections of completed pipe over 2000 feet in length. An interim report for each section shall be submitted to the REI Team.

The complete cathodic protection system shall be tested prior to final installation, and pipe-to-soil potential testing shall be repeated following final restoration.

The cathodic protection system shall not be considered complete until a Final Report and As-Built Drawings have been prepared and submitted by the NYC DDC NACE Corrosion Specialist and accepted by DENBWSO-CPOA. The report shall be organized in an orderly chronological order.

Segment No.	Drawing	Contract	Location	60-inch Pipe Length (ft)	48-inch Pipe Length (ft)	Cnd beds	Anodes	CuSO4 Ref. Cells	Relax
SEGMENT 1	QED10238-CP-1, 2, 3, 4	Q311 H2318	Trotman Street from Cypress Ave to Flushing Ave		2125	0	155	12	12
SEGMENT 2	QED10238-CP-5, 6	QFD H2318	Wloughby Ave from St Nicholas Ave to Cypress Ave, Cypress Ave from Wloughby Ave to Dekalb Ave	886		4	40	5	5
SEGMENT 3	QED10238-CP-7, 8	QF3 H2318	Cypress Ave from Dekalb Ave to Hiram St, Hiram St from Cypress Ave to Grandview Ave	1570		0	135	12	12
<b>TOTALS</b>				<b>2450</b>	<b>2125</b>	<b>22</b>	<b>330</b>	<b>29</b>	<b>29</b>

REV	DATE	DESCRIPTION	BY	CHK
01	12/11/17	ISSUES	SP	SP
02	01/11/18	REVISIONS	SP	SP

35 300TH STREET  
BROOKLYN, NY 11216  
CITY 433-0868  
www.corttech.com

WORKSHEET  
DRAWING  
PROJECT



DATE OF ISSUE  
REVISION

CLIENT  
DEPARTMENT OF DESIGN & CONSTRUCTION  
DIVISION OF INFRASTRUCTURE  
BUREAU OF DESIGN

REPLACEMENT OF TRUNK AND DISTRIBUTION WATER MAIN IN CYPRESS AVENUE BETWEEN WILLOUGHBY AVENUE AND HIRAM STREET, ETC.  
BOROUGH OF QUEENS

CATHODIC PROTECTION SYSTEM  
DATE: 10/3/17  
DRAWING NO: CPO-10238-CP-4  
SHEET NUMBER: 13 OF 13  
REV: 0

**EP7 (1.0) - PAGES**

**GAS COST SHARING (EP-7)  
STANDARD SPECIFICATIONS**

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**NOTICE**

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

(NO TEXT ON THIS PAGE)

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- SECTION 6.03.1 - Removal Of Abandoned Gas Facilities With Possible Coal Tar Wrap. All Sizes. (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)
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## I - NOTICE TO ALL BIDDERS; GAS COST SHARING WORK

All prospective bidders are hereby advised that, pursuant to the "Gas Facility Cost Allocation Act", ("the Act"), the City of New York has entered into an agreement ("the Agreement") with the gas companies (Con Edison or National Grid (formerly KeySpan Energy Delivery)) operating in their respective areas of the City to "share" the cost of facility relocation and/or support and protection of facilities disturbed by proposed water and/or sewer and related City work specified in this contract. Therefore, bid items, specifications and estimated quantities for the incremental costs of support and protection of certain gas facilities have been included in this contract. The low bid for this contract shall be determined by examining each bid for all work to be performed under this contract including any work of support and protection of gas facilities to be performed. The Contractor shall not seek additional compensation from gas companies except as specifically set forth in its contract.

## II - GENERAL PROVISIONS; GAS COST SHARING WORK

### 1. General:

The Contractor shall perform City work with interferences from existing live and abandoned gas facilities. This shall be defined as utility work. Therefore, this contract includes bid items, specifications and estimated quantities designed to fully compensate him/her for the incremental costs of supporting, protecting, providing accommodations and, avoiding disturbing gas facilities located in the streets shown on the contract drawings. In the event that any other provisions of this contract related to gas facilities (or private utilities) conflict with these provisions, these provisions shall supersede and govern all work related to gas facilities owned by the companies operating in the project area. All utility work, as defined in these specifications, including changes and additions thereto shall be paid solely by the City except when specified otherwise in this contract. Contractor hereby agrees that the facility operator shall not be liable to pay him/her for any work performed including extra utility work. Contractor agrees that its bid prices include all compensation for loss of productivity and efficiency, idle time, delays (including any delays occasioned by negotiation of a contract change), change in operations, mobilization, demobilization, remobilization, added cost or expense, lost of profit, other damages or impact costs that may be suffered by or because of utility work, or the presence of gas facilities in the proximity of City work and that it will not seek additional compensation for these items. All disputes shall be resolved as specified in the contract.

Pursuant to the Act, Agreement, and the New York City Administrative Code, the gas company(ies) has been directed by the Commissioner and is required to perform all maintenance, repairs, replacement, shifting, alteration, relocation, and/or removal work that are not part of this contract. By having bid on this contract, the Contractor understands and agrees that the Commissioner has preasserted any right the City has to require, including the issuance of any directives or so called "order outs" under the New York City Administrative Code, any or all gas companies to maintain, repair, replace, protect, support, shift, alter, relocate, and/or remove all gas facilities that are about to be disturbed by the City contract work. The issuance of additional such directives during the performance of the contract work, where necessary in the sole judgment of the Commissioner, shall be initiated by such Commissioner as set forth in the relevant sections of the Act and Agreement. Contractor further agrees to insert such requirements as set forth herein above into any contracts with its approved subcontractors so that its subcontractors also understand and agree to such contract requirements.

### 2. Gas Interferences And Accommodations:

During the performance of sewer and water main work funded by the New York City Department of Environmental Protection (NYCDEP), as instructed by the Engineer, the use of any applicable contract bid item is allowed in order to resolve and accommodate all gas facilities interferences with such City work, including the removal of contaminated soil in associated trench excavation. This is in addition to the specified EP-7 bid items in the contract. Payment for such accommodation shall be funded by EP-7 bid item "UTL-GCS-2WS - GAS INTERFERENCES AND ACCOMMODATIONS" (F.S. Fixed Sum). The value of such accommodation shall be computed by multiplying the appropriate unit prices bid to the quantity of work performed, as determined by the Engineer, and applying the total amount thus to be paid

to EP-7 bid item "UTL-GCS-2WS - GAS INTERFERENCES AND ACCOMMODATIONS". When EP-7 bid item "UTL-GCS-2WS - GAS INTERFERENCES AND ACCOMMODATIONS" does not exist, such additional accommodation work shall be at no cost to the City but shall be a matter of adjustment between gas facility operator and Contractor. Private facilities, other than gas, that become in interference due to gas interferences accommodations shall also be accommodated, if so directed by the Resident Engineer, at no additional cost to the City and, provided that its owner agrees to be responsible for all additional costs to Contractor, otherwise, such facility shall be ordered by the City to be maintained, shifted, relocated or replaced by its owner at his/her expenses.

#### **2a. Water Main Accommodations:**

When water main construction is to be performed in this contract, Contractor shall be required, if warranted by field conditions, and at locations designated by the Resident or Borough Engineer, to change the vertical or horizontal alignment of water mains including but not limited to all additional labor, material, work method accommodations, furnishing, delivering and laying offset fittings and pipes, etc., necessary in order to complete water main installation and, avoid gas interferences in the project area, including street intersections. Typical work method accommodations shall include, but not be limited to, pier and plate, installation of filter fabric and select fill, etc. Such work shall be performed as directed by the Engineer and in accordance with contract specifications and latest edition of water mains standards and specifications.

#### **2b. Sewer Accommodations:**

When sewer construction is to be performed in this contract, Contractor shall be required, if warranted by field conditions, and at locations designated by the Resident or Borough Engineer, to change the horizontal alignment of sewer facilities (if possible) including but not limited to all additional labor, material, work method accommodations, furnishing, delivering and construction of additional manholes or modification of manholes/catch basins, extending chute connections, house connections, using alternate materials and methods, poured-in-place structures, etc., necessary in order to complete sewer installation and, avoid gas interferences in the project area, including street intersections. The term sewer facility shall include, but not be limited to, all sewer pipe and appurtenances, manholes, catch basins, catch basin chutes, etc. Such work shall be performed as directed by the Engineer and in accordance with contract specifications and latest edition of sewer standards and specifications.

#### **3. Quantity Overruns, EP-7 Funded Bid Items:**

No quantity overrun, in excess of one hundred twenty five (125) percent, shall be permitted for EP-7 funded bid items (gas) included in this contract, except when Resident Engineer determines that such overruns are caused by field modifications to planned City work, or approved construction methods, or contract scope changes. Overruns not paid by City shall be negotiated and paid to Contractor by gas facility operator who then shall be entitled to reimbursement by NYCDEP under established cost sharing procedures.

#### **4. Changes And Extra Work:**

This section is not applicable to work defined under "Emergency Reconstruction Contracts" or so-called "Where and When Contracts" since these projects, by definition, inherently encounter unanticipated gas facilities and cannot be pre-engineered. In all other cases, any contract changes proposed for City work shall also cover and include all associated changes to support and protection of gas facilities affected by such changes to City work. In all other cases where the Contractor finds that City work cannot be performed as planned and specified and/or, as approved because of a need to support, protect and/or alleviate interferences from gas facilities that were not listed and/or shown, or incorrectly shown in contract plans and specifications, he shall immediately notify the Resident Engineer and the facility operators' representative of his findings. Resident Engineer shall promptly examine such claims and determine whether or not such work is covered by contract bid items and /or specifications (contract bid items and specifications shall include city contract items as well as EP-7 items). The Resident Engineer shall also

examine the claim to determine if the application of EP-7 bid item "UTL-GCS-2WS - GAS INTERFERENCES AND ACCOMMODATIONS" is appropriate to resolve the claim. If upon examination, the Engineer determines that such field conditions were unanticipated (not shown and/or listed, or incorrectly shown in contract documents) and are not covered by bid items and contract specifications, he shall then direct the Contractor and the affected facility operator to negotiate the cost of supporting and protecting, and/or alleviating the impact on City work caused by such unanticipated gas facilities with each other with the understanding that the performance of City work shall continue during negotiations. If a cost agreement is reached, the Contractor and facility operator shall adjust such costs between themselves at no additional costs to the City contract. If the Contractor and affected facility operator do not reach an agreement concerning the price to be paid for the extra work within five (5) business days of the Engineer's directive to engage into such negotiations and, after considering: public safety and inconvenience, requirements of laws and regulations applicable to private utilities, integrity of all utility systems, including but not limited to sewer and water, gas, electric, telephone and, cable TV facilities, sound engineering practices, cost (long and short term) to all affected parties, and potential City work delays, then the Resident Engineer, depending on nature and severity of interferences with City work, shall either, direct the facility operator to relocate or replace its facilities at its own discretion and cost, reimbursable by NYCDEP under established gas cost sharing procedures or, direct the Contractor to perform the utility work on actual time, material and equipment costs 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:

- A. Upstream invert chute is more than six (6) feet deep because of gas facilities.
- B. Chute cannot be installed above existing gas facilities because of interferences with other private facilities that are not otherwise covered under this contract, regardless of upstream invert depth.

The above cases shall be at no cost to the City, but shall be a matter of adjustment between the Contractor and the facility operator(s).

5. Price To Cover:

The bid price shall cover the additional cost of all additional supervision, labor, materials, equipment and insurance, to complete the installation of catch basins and associated sewer connections in accordance with the contract plans and specifications. The price shall include: excavation by hand around and under single and multiple gas facilities; locating, supporting and protecting gas facilities; backfilling and all other items necessary to perform all work incidental thereto including: installation and removal of drain pipe under gas facilities ("snaking"); widening of trenches to facilitate the above work; subsequent additional backfill and pavement restoration; modifying precast catch basin window to accommodate connection; changing sheeting method and configuration to accommodate gas facility crossings; maintenance and protection of traffic; barricades; and installation of traffic plates that may be required to temporarily close and/or complete the work. The price shall not include removal of ledge rock and/or excavation of boulders in open cut.

**SECTION 6.02.1 - Extra Excavation For The Installation Of Catch Basin Sewer Drain Pipes With Upstream Inverts Greater Than Six (6) Feet.**

1. Description:

Under this item, the Contractor shall provide all labor, materials, equipment, insurance and incidentals for the extra excavation of catch basin chutes where the upstream invert is greater than six (6) feet under gas facilities of various sizes crossing the trench excavation at various angles and depth at the locations shown in the contract documents or as determined by field conditions and also, for the support and protection of these facilities during the associated excavation, sheeting and backfilling operations.

2. Method Of Measurement:

The bid price shall be per location (Each) where extra excavation and sheeting is required when the catch basin chute installed at an upstream invert depth lower than six (6) feet from the proposed pavement grade because the bottom faces of the interfering gas mains and appurtenances are located at a greater depth than three foot eight inches from the proposed pavement surface only.

3. Method Of Construction:

Incremental cost responsibility for chute excavation is determined by the first private facility encountered during such excavation when initiated from catch basin structure and that prevents the installation of the chute at an upstream cover less than or equal to three (3) feet or any other cover required to avoid City facilities as directed by the Resident Engineer.

4. Payment Restriction:

This item shall not apply and related bid item shall not be paid in cases where:  
Upstream invert chute is less than or equal to six (6) feet deep because of gas facilities. Section 6.02 shall be paid.

#### 5. Price To Cover:

The bid price shall cover the additional cost of all supervision, labor, materials, equipment and insurance to complete the installation of catch basin and associated sewer connections in accordance with the contract plans and specifications. The price shall include: excavation by hand around and under single and multiple gas facilities; locating, supporting and protecting gas facilities incidental thereto; widening of trenches to facilitate the above work; subsequent additional backfilling and pavement restoration; modifying pre-cast basin window to accommodate connection; the installation of catch basin with deeper sumps as specified; additional sheeting and changes in sheeting method and configuration to accommodate gas facility crossings; maintenance and protection of traffic; barricades; and installation of traffic plates that may be required to temporarily close and/or complete the work.

### **SECTION 6.03 - Removal Of Abandoned Gas Facilities. All Sizes.**

#### 1. Description:

Under this section the Contractor shall provide all labor, materials, equipment, insurance and, incidentals required for the removal of abandoned gas mains, services, or appurtenances thereof, located within the street shown on the contract plans, owned by gas company operating in the project area (facility operator), used or to be used for or in connection with or to facilitate the conveying, transportation, distribution or furnishing of gas (natural or manufactured or mixture of both) for light, heat, or power, but does not include property used solely for or in connection with business of selling, distributing or furnishing of gas in enclosed containers. Such removal shall include only abandoned gas facilities that interfere with (i.e. cause additional work) City work.

#### 2. Determination Of Operating Status Of Gas Facilities:

The Contractor shall notify facility operator, as required by New York State Industrial Code 753. Gas facilities shall not be removed without the approval of the facility operator whose authorized representative shall certify in writing (specific facility or area wide facilities certification) and in a timely manner acceptable to the Resident Engineer that abandoned facilities are free of combustible gas and any other environmental contaminants prior to removal. The Resident Engineer shall rely on facility operator's certification. The facility operator may request the excavation of test pits (See Section 6.07) for this determination ahead of City work and, Contractor shall provide safe access, facilitate and permit facility operator to enter test pit excavations for the purpose of testing gas facilities to be removed by the Contractor. However, facility operator may prefer to make this test during performance of City work, in order to issue the above certification. This shall be permitted provided that it is agreed that additional costs, if any resulting from this choice shall be a matter of adjustment between the Contractor and facility operator only, and at no cost to the City.

#### 3. Restrictions:

The facility operator shall be solely responsible for its contaminated gas facilities, surrounding contaminated soil and their disposal and abatement procedures, unless contract bid items are applicable and provided for such work. In such cases, the quantity removed shall be charged to EP-7 bid item "UTL-GCS-2WS - GAS INTERFERENCES AND ACCOMMODATIONS" at the City bid prices.

#### 4. Method Of Measurement:

Abandoned gas pipeline removal shall be measured for payment per linear foot of pipe and appurtenances removed.

#### 5. Price To Cover:

The price shall cover all additional cost of supervision, labor, materials, equipment, and insurance necessary to complete this work in accordance with the contract plans and specifications, including excavation by hand around and under other City and facility operator owned properties and, where necessary, support and protection of such properties. The price shall also cover breaking, cutting, and/or burning of abandoned gas pipes and their disposal from the site; sealing open ends remaining in the excavation with concrete or caps (caps to be provided by the facility operator) and backfilling of the area where the pipeline has been removed with clean backfill. The price shall also include any required dump charges. This item does not include any type of extra excavation, backfilling, compaction, pavement removal and restoration associated with abandoned gas facilities removal, all of which are covered under Section 6.06.

### **SECTION 6.03.1 - Removal Of Abandoned Gas Facilities With Possible Coal Tar Wrap. All Sizes. (For National Grid Work Only)**

#### 1. Description:

Under this section the Contractor shall provide all labor, materials, equipment, insurance and, incidentals required for the removal of abandoned gas mains, services or appurtenances thereof, located within the street shown on the contract plans, owned by the gas company operating in the project area (facility operator), used or to be used for or in connection with or to facilitate the conveying, transportation, distribution or furnishing of gas (natural or manufactured or mixture of both) for light, heat, or power, but does not include property used solely for or in connection with business of selling, distributing or furnishing of gas in enclosed containers. Such removal shall include only abandoned gas facilities that interfere with (i.e. cause additional work) City work. These gas facilities may be coated with Coal Tar Wrap and so, may require special handling and disposal methods as specified in National Grid Standard Operating Procedure 12-2, Coal Tar Wrap Handling and 12NYCRR56.

#### 2. Determination Of Operating Status Of Gas Facilities:

The Contractor shall notify facility operator, as required by New York State Industrial Code 753. Gas facilities shall not be removed without the approval of the facility operator whose authorized representative shall certify in writing (specific facility or area wide facilities certification) and in a timely manner acceptable to the Resident Engineer that abandoned facilities are free of combustible gas and any other environmental contaminants prior to removal. The Resident Engineer shall rely on the facility operator's certification. The facility operator may request the excavation of test pits (See Section 6.07) for this determination ahead of City work and, the Contractor shall provide safe access, facilitate and permit facility operator to enter test pit excavations for the purpose of testing gas facilities to be removed by the Contractor. However, the facility operator may prefer to make this test during performance of City work, in order to issue the above certification. This shall be permitted provided that it is agreed that additional costs, if any, resulting from this choice shall be a matter of adjustment between the Contractor and the facility operator only, and at no cost to the City contract. Should such investigation result in the determination that the abandoned gas facilities do not contain Coal Tar Wrap then the removal of said facilities shall be covered under separate item (See Section 6.03).

#### 3. Requirements:

The City Contractor shall excavate abandoned gas facility sufficiently, either in its entirety, or at locations determined by Contractor to allow the removal of Coal Tar Wrap (if present on the abandoned gas facility) and to facilitate the safe extraction of manageable lengths of abandoned pipe without damage to adjacent facilities, utilities or City structures either parallel to or crossing above or below abandoned gas facility. The Contractor is to allow access to the designated cutting points within the Contractor's trench by authorized National Grid personnel who will remove the Coal Tar Wrap as per National Grid procedures. This work by National Grid personnel shall be performed in a timely fashion and shall not unduly impede the Contractor's progress and/or productivity. Upon completion of the coating removal, the Contractor shall be allowed to cut, burn or grind the gas facility and remove the section of abandoned pipe. The

Contractor at a site designated by the Contractor shall stockpile the removed pipe. The facility operator will be responsible to provide trucking and disposal services with its own personnel and shall remove the stockpiled pipes during off hours or during such time as agreed to by the Contractor. Since the pipe removed will remain the property of the facility operator and is to be disposed of by the facility operator, the facility operator shall be responsible for any required notifications, filings, dump charges and incidentals associated with the disposal of abandoned gas facilities found to contain Coal Tar Wrap.

#### 4. Method Of Measurement:

Abandoned gas pipeline removal shall be measured for payment per linear foot of pipe and appurtenances removed.

#### 5. Price To Cover:

The price shall cover all additional cost of supervision, labor, materials, equipment and insurance necessary to complete this work in accordance with the contract plans and specifications, including excavation by hand around and under other City and facility operator owned properties and, where necessary, the support and protection of such properties. The cost shall also include hand excavation in the area(s) of proposed abandoned pipe cut(s), cutting and/or burning of abandoned gas pipes and stockpile of removed sections of abandoned pipe and associated maintenance and protection of traffic, blocking and temporary fencing if required. The unit price shall also cover sealing open ends remaining in the excavation with concrete or end caps (end caps to be provided by the facility operator) and backfilling of the area where the abandoned pipeline has been removed with clean backfill material. This item does not include any type of extra excavation, backfilling, compaction, pavement removal and/or restoration (temporary and permanent) associated with abandoned pipe removal ("lost trench"), all of which are covered under separate Section 6.06. The price shall also include allowance for any loss of productivity by the Contractor due to required facility operator work to remove pipe coating and prepare pipe for cutting as well as any change in Contractor's excavation method, additional trucking and/or stockpiling costs.

### **SECTION 6.03.1a - Removal Of Abandoned Gas Facilities With Possible Coal Tar Wrap. All Sizes. (For Con Edison Work Only)**

#### 1. Description:

Under this section the Contractor shall provide all labor, material, equipment, insurance and, incidentals required to prepare abandoned gas mains, services and appurtenances thereof located within the street shown on contract plans, owned by the gas company operating in the project area (facility operator), for removal due to interference with proposed City work. These abandoned gas facilities were, at one time, used for or in connection with or to facilitate the conveying, transportation, distribution or furnishing of gas (natural, manufactured or a combination of both) for light, heat, or power, but does not include property used solely for or in connection with business of selling, distribution or furnishing of gas in enclosed containers. Such preparation for removal shall include only abandoned gas facilities that interfere with (i.e. cause additional work) City work. These gas facilities may be coated with Coal Tar Wrap which may contain asbestos or PCB's and so, may require special handling and disposal methods as specified in Con Edison - ASBESTOS MANAGEMENT MANUAL, CHAPTER 6 - ASBESTOS WORK PROCEDURES, SECTION 06.04 - COAL TAR WRAP REMOVAL. For under 25' (feet) in length and an approved NYC-DEP variance for over 25' (feet).

#### 2. Determination Of Operating Status Of Gas Facilities:

The Contractor shall notify facility operator, as required by New York State Industrial Code 753. Gas Facilities shall not be removed without the approval of the facility operator whose authorized representative shall certify in writing (specific facility or area wide facilities certification) and in a timely manner acceptable to the Resident Engineer that abandoned facilities are free of combustible gas and any other environmental contaminants prior to removal. The Resident Engineer shall rely on the facility

operator's certification. The facility operator may request the excavation of test pits (See Section 6.07) for this determination ahead of City work and Contractor shall provide safe access, facilitate and permit facility operator to enter test pit excavations for the purpose of testing gas facilities. However, the facility operator may prefer to make this test during performance of City work in order to issue the above certification. This shall be permitted provided that it is agreed that additional costs, if any, resulting from this choice shall be a matter of adjustment between the Contractor and the facility operator only, and at no cost the City contract. Should such investigation result in the determination that the abandoned gas facilities do not contain Coal Tar Wrap 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 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 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 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. Contractor shall designate a specific site to stockpile those removed pipes. The facility operator will be responsible to provide trucking and disposal services with its own personnel and shall remove the stockpiled pipes during off hours or during such time as agreed to by the Contractor. Since the pipe removed will remain the property of the facility operator and is to be disposed of by the facility operator, the facility operator shall be responsible for any required notifications, filings, dump charges and incidentals associated with the disposal of abandoned gas facilities found to contain Coal Tar Wrap.

### 4. Method Of Measurement:

Abandoned gas facility removal shall be measured for payment per linear foot of pipe and appurtenances removed.

### 5. Price To Cover:

The price shall cover all additional cost of supervision, labor, materials, equipment and insurance necessary to complete this work in accordance with the plans and specifications, including, but not limited to, excavation by hand around and under other City and facility operator owned properties and, where necessary, the support and protection of such properties. The cost shall also include hand excavation in the area(s) of proposed abandoned pipe cut(s), cutting and/or burning of abandoned gas pipes and stockpile of removed sections of abandoned pipe and associated maintenance of traffic, blocking and temporary fencing if required. The unit price shall also cover sealing open ends remaining in the excavation with concrete or end caps (end caps to be supplied by facility operator) and backfilling of the area where the abandoned pipeline has been removed with clean backfill material. This item does not include any type of extra excavation, backfilling, compaction, pavement removal and/or restoration (temporary and permanent) associated with abandoned pipe removal ("lost trench"), all of which are covered under separate Section 6.06. The price shall also include allowance for any loss of productivity by the Contractor due to required facility operator work to remove pipe coating and prepare pipe for cutting as well as any change in Contractor excavation method, additional trucking and/or stockpiling costs.

## **SECTION 6.04 - Adjust Hardware To Grade Using Spacer Rings/Adaptors. (Street Repaving.)**

### 1. Description:

Under this section, the Contractor shall provide all labor, supervision, materials, equipment, insurance and incidentals required to adjust to final grade gas street surface hardware located within the contract area boundaries shown on the plans. The gas company operating in the area, (facility operator), owns these facilities. The work shall be performed in accordance with the contract plans, specifications and at the directions of the Resident Engineer in concurrence with authorized representative of the facility operator.

## 2. Materials:

The facility operator shall furnish and deliver all prefabricated hardware parts required. These include adaptors for the grade adjustment proper and new street hardware if existing ones are found to be defective, all in accordance with the facility operator standards and City rules and regulations. The Contractor shall notify the facility operator of the installation schedule at least three (3) business days before materials are required on the site. Should the facility operator fail to deliver the necessary material according to any schedule mutually agreed upon by the Contractor and facility operator, the City shall not be responsible for any delays attributable thereto, nor for the failure of delivery of such materials. On project where material storage is not permitted on site, the facility operator shall deliver the required material to the Contractor's yard and it shall be the Contractor's responsibility to transport the material to the work site when needed for installation. It shall also be the Contractor's responsibility to inspect the materials to be installed by him immediately upon delivery and advise the facility operator through its authorized representative, of all damaged materials. The Contractor at no additional expense to the City or the facility operator shall replace any material that is damaged or lost after the Contractor's inspection.

## 3. Method Of Measurement:

The Contractor shall be paid for each six (6) inch round box and/or nine (9) inch square box adjusted to grade regardless of adjustment height requirements.

## 4. Price To Cover:

The unit price bid for this item shall include all additional labor, supervision, insurance, equipment and material (except those to be provided by the facility operator), required to adjust each box to grade as required in the contract plans and specifications. The bid price shall also include the removal of existing frames and covers from existing facilities to be salvaged and returned to the facility operator and, all material transportation from the Contractor's material storage yard to the work site. In addition the bid price shall include "chipping" around existing box using appropriate means and methods where grinding is required.

## **SECTION 6.05 - Adjust Hardware To Grade By Resetting. (Road Reconstruction.)**

### 1. Description:

Under this item, the Contractor shall provide all labor, supervision, materials, equipment, insurance and incidentals required to adjust to the proposed grade gas street surface hardware located within the contract area boundaries shown on the plans. The gas company operating in the area, (facility operator), owns these facilities. The work shall consist of either building up or lowering or resetting the casting by removing the existing frame and cover building up or decreasing the existing installation, replacing the frame and/or cover if damaged or worn out, as determined by the Resident Engineer, with a new frame and/or cover furnished by the owner, and setting the frame and cover to new elevation. The work shall be performed in accordance with the contract plans, specifications and at the directions of the Resident Engineer.

### 2. Materials:

The facility operator shall furnish and deliver all new hardware parts required. The Contractor shall furnish materials such as mortar, bricks and concrete in compliance with contract requirements. At locations

where high-early strength concrete is required under this contract to be placed adjacent to gas facilities, then the requirement for concrete shall be high-early strength complying with the current New York State Department of Transportation, Standard Specifications for Class F concrete. Existing castings may be replaced as required and deemed necessary by the Engineer and by City rules and regulations. The Contractor shall install the new castings of various sizes furnished by the facility operator. The Contractor shall notify the facility operator of the installation schedule at least three (3) business days before materials are required on the site and, shall provide off-loading services to the facility operator. Should the facility operator fail to deliver the necessary material according to any schedule mutually agreed upon by the Contractor and facility operator, the City shall not be responsible for any delays attributable thereto, nor for the failure of delivery of such materials. Such delays shall be a matter of adjustment between the Contractor and the facility operator. On project where material storage is not permitted on site, the facility operator shall deliver the required material to the Contractor's yard and it shall be the Contractor's responsibility to transport the material to the work site when needed for installation. It shall also be the Contractor's responsibility to inspect the materials to be installed by him, immediately upon delivery and advise the facility operator through its authorized representative, of all damaged materials. The Contractor at no additional expense to the City or the facility operator shall replace any material that is damaged or lost after the Contractor's inspection.

### 3. Methods Of Construction:

The Contractor shall remove and reinstall existing castings or install new castings to the proposed grade. Setting and resetting the castings shall be done with mortar and brick according to the standards of the facility operator. Work shall be performed in a workmanlike manner. Castings that are deemed unacceptable for resetting shall remain the property of the facility operator and he shall be responsible for their removal and proper disposal from site. No traffic shall be allowed on adjusted street hardware until permitted by the Engineer.

### 4. Method Of Measurement:

The Contractor shall be paid for each gas hardware adjusted to grade regardless of size or adjustment height requirements (up or down).

### 5. Price To Cover:

The unit price bid for this item shall include all additional labor, supervision, insurance, equipment and material (except those to be provided by the facility operator), required to adjust each gas hardware to grade as required in the contract plans and specifications. The bid price shall also include the removal of existing frames and covers from existing facilities; building up the existing installations with bricks and mortar, or lowering the existing installation by removing bricks and mortar; replacing damaged frames and/or covers with new frames and/or covers furnished by the facility operator; setting the frames and covers to the new elevations; protect existing installations; repair minor structural damages to existing installations prior to resetting frames; unloading of furnished castings at the Contractor's yard and transporting castings from the Contractor's yard to the job site as required; completing the work in accordance with the contract plans, specifications and, at the directions of the Engineer. In addition the bid price shall include "chipping" around existing gas facilities using appropriate means and methods where grinding is required.

## **SECTION 6.06 - Special Care Excavation And Backfilling.**

### 1. Description:

Under this section, the Contractor shall provide all labor, materials, equipment, insurance and incidentals required to support and protect the integrity of live gas facilities including mains, services, related structures and appurtenances during excavations. The gas company operating in the area, (facility operator), owns these facilities. The work shall be performed in accordance with the contract plans, specifications and at the directions of the Resident Engineer in consultation with authorized

representatives of the facility operator.

## 2. Applicability Of Section:

This section shall apply to live gas facilities of various sizes located within two (2) feet of any face of unsheeted excavation, (unsheeted excavation refers to any excavation performed for city work and includes excavations performed that are to be subsequently sheeted using approved methods) and paralleling or, encroaching any face of excavation. Also, for crossings greater than forty-five (45) degrees and/or located at a cover depth greater than five (5) feet from existing street surface. Parallel facilities are not exposed at any time during excavation (See "Gas Cost Sharing Work Standard Sketch No. 5"). Encroaching facilities are partially exposed inside the limit of excavation (See "Gas Cost Sharing Work Standard Sketch No. 5"). This section shall also apply to gas facilities crossing catch basins excavation, and catch basins sewer connections (chutes) trench excavation only when extra depth (covered in other section), is not required for chutes installations because of such utilities interferences (See "Gas Cost Sharing Work Standard Sketch No. 3"). This section shall also apply to gas services (if shown or otherwise listed in contract documents) crossing unsheeted excavations for water mains, gas facilities crossing fire hydrant branch connections, house sewer and/or water service connections excavations. This section shall also apply for so called "loss trench", as described further, and for additional excavation (pavement and/or soil), backfilling, compaction, roadway base and pavement restoration due to abandoned gas facilities, only if removed by Contractor. If operating status of gas facilities cannot be determined prior to excavation then such facilities shall be considered live and this section shall fully apply. The excavation around fully exposed live gas facilities along and within limits of excavation (not crossings) shall be covered by this section also (not shown on "Gas Cost Sharing Work Standard Sketch No. 5"), however the support requirement, if any is required, of such facilities is beyond the scope of these specifications and therefore shall be the responsibility of facility operator to determine and prescribe, at no cost to the City contract, but shall be a matter of adjustment between the Contractor and facility operator.

## 3. Payment Restriction:

No special care excavation shall be paid for abandoned gas facilities paralleling and/or encroaching excavation and therefore are not in direct interference with City work. Except as allowed in this section, the bid item specified under this section shall not be used in combination with items covered under other sections for work done due to a particular gas facility. This item shall not be paid for new gas facilities when trenching for such new facilities has been performed by the Contractor of record in common with trench excavation for City Work (overlapping trench limits). The cost of excavating with care as defined in this section shall be deemed included in the cost of trench excavation for the new gas facilities. This restriction shall apply even if such gas common trench excavation is not part of the contract. If facilities are in direct interference with City work, meaning that "Minimum Clearances" described in "General Provisions; Gas Cost Sharing Work Paragraph No. 8" cannot be maintained and excavation has to be temporarily or permanently abandoned then this particular location shall become a test pit and dealt with as specified in Section 6.07 and "General Provisions; Gas Cost Sharing Work Paragraphs Nos. 2 and 8".

## 4. Method Of Construction:

All excavation in the vicinity of gas facilities shall be as required by NYS Industrial Code 753. Where these facilities are paralleling and located two (2) feet or less from the limits of the proposed excavation, the Contractor shall use hand excavation methods (pick and shovel or hand held power tools) to ascertain the clearances of these facilities with respect to the proposed excavation. Once the location of these facilities with respect to the proposed excavation is verified to the satisfaction of the Resident Engineer, the Contractor shall then proceed with a combination of hand and machine excavation as required preserving the integrity of the facilities. The installation of timber supports or underpinning, when soil foundation cannot fully support partially exposed pipes, may be required to prevent pipe movement as directed by the Resident Engineer.

## 5. Method Of Payment:

The unit price for this work item shall be based on cubic yard (CY) of average excavation with care and, is



to be considered as an incremental cost for performing City work with gas facilities interferences.

#### 6. Method Of Measurement:

- A. For Paralleling Facilities: Volume calculated as: Depth as measured from existing street surface to the bottom of unsheeted trench excavation allowable by OSHA regulations, multiplied by, the width measured as one (1) foot from the face of excavation toward the center of excavation, multiplied by the length of parallel facility, divided by twenty-seven (27) cubic feet per cubic yard (See "Gas Cost Sharing Work Standard Sketch No. 5"). The gas facility is no longer considered to be in interference once sheeting has been installed, therefore no further compensation for paralleling facilities as described above will be made.
- B. For Encroaching Facilities: Volume calculated as: Depth of trench as allowable by OSHA, maximum up to five (5) feet multiplied by, the width of partially exposed pipe plus one (1) foot, multiplied by the length of facility encroachment, divided by twenty-seven (27) cubic feet per cubic yard (See "Gas Cost Sharing Work Standard Sketch No. 5").
- C. Fully Exposed Gas Facilities: (Not shown on "Gas Cost Sharing Work Standard Sketch No. 5") along and inside trench and/or crossing trench at an angle greater than forty-five (45) degrees and/or a cover depth greater than five (5) feet from the existing street surface. The volume shall be measured as the depth of trench excavation multiplied by the distance measured along the sheeting line between two (2) points of intersections of the gas facilities and the sides of trench excavation, multiplied by the width of trench excavation.
- D. For Additional Excavation And Restoration Due To So Called "Loss Trench", When The Integrity Of Pavement And Soil Above And Around Existing Live Gas Facilities Cannot Be Maintained Due To Its Lack Of Cohesiveness: Volume shall be calculated as: Depth of unsheeted trench excavation multiplied by width measured as distance of facility from closest edge of unsheeted excavation plus, width of facility proper plus, one (1) foot or a maximum width of three (3) feet multiplied by length of facility fully exposed divided by, twenty-seven (27) cubic feet per cubic yard (not shown on "Gas Cost Sharing Work Standard Sketch No. 5").
- E. For Facilities Crossing Excavation For Catch Basins, Or Chutes Installations (When NYCDEP Funded) Or Fire Hydrant Branch Connections, Or Unsheeted Water Main Trench, Or House Sewer And/Or Water Services: Volume calculated as: Depth as measured from existing street surface to the bottom of the trench excavation multiplied by, the width taken as the outside diameter of pipe or the width of structure plus one (1) foot on either side (two (2) feet), multiplied by, the length of exposed facility crossing the trench, divided by twenty-seven (27) cubic feet per cubic yard (not shown on "Gas Cost Sharing Work Standard Sketch No. 5").

Overlapping volume dimensions measured as described above may occur when multiple facilities are paralleling excavations, encroaching excavations or crossing catch basins and catch basin chute installations. In such cases, all such facilities shall be counted as one limited by the extreme pipes, faces (See "Gas Cost Sharing Work Standard Sketch No. 2"). The volume shall then be calculated as described above.

#### 7. Price To Cover:

The bid price shall also cover all additional supervision, labor, material, equipment and insurance necessary to excavate while protecting and maintaining (excluding supports for fully exposed live gas) gas facilities without disruption of service to the public and in accordance with contract specifications. The price shall also include, changes of sheeting method and excavation width configuration where necessary to accommodate gas facilities in their existing locations; difficulties during the installation of catch basins, chute connections, hydrant branch, and house sewer and water connections under or over gas facilities; loss of productivity due to slower rate of excavation (special care) during excavation, including the use of such methods as: hand excavation around existing single and multiple facilities, extra excavation and backfilling due to lost trench because of existing and adjacent gas facilities, compaction, removal of

sheeting from the facilities, extra roadway base restoration and temporary pavement, associated maintenance and protection of traffic, barricades, and traffic plates that may be required to temporarily close and/or complete the work.

## **SECTION 6.07 - Test Pits For Gas Facilities.**

### 1. Description:

Under this section, the Contractor shall furnish all labor, materials, insurance, equipment and appliances necessary to excavate, sheet and, maintain test pits at locations approved by the Resident Engineer in consultation with the facility operator. Test pits shall be dug in order to ascertain exact locations, cover and invert elevations, clearances, alignment and operating status (live or dead) of existing gas facilities. The Contractor shall inspect jointly with the Resident Engineer and facility operator, gas facilities and other structures uncovered, take all relevant measurements and elevations as directed by the Resident Engineer. Tests to determine operating status of gas facilities shall be performed by facility operator. The pits shall be covered with steel plates during daytime nonworking hours, and uncovered, as required, until the inspection work is completed. Testing of gas facilities may require a maximum of four (4) hours. Then, the pits shall be backfilled with clean fill, and resurfaced with temporary pavement. All traffic shall be maintained and all safety measures as stipulated shall be complied with.

### 2. Methods Of Construction:

A. Excavation: Existing pavement to be removed shall be neatly cut along lines of removal with a saw or other approved equipment which leaves a neat straight joint line along the juncture with subsequently replaced pavement. Excavation in the vicinity of utilities and other structures shall be performed using hand tools. Use of hand operated pneumatic and electric jackhammers will be permitted only for breaking pavement and removal of masonry, concrete and boulders, or as otherwise directed by the Resident Engineer. The Contractor shall properly dispose of all materials excavated from test pits away from site. Test pits shall be excavated at locations shown on the contract drawings or as directed by the Resident Engineer. Additional test pits may be required and shall be excavated where required, as ordered by the Resident Engineer. All test pits shall be excavated to a depth and size necessary to locate the existing facilities. Sheet piling shall be used when depth of excavation exceeds five (5) feet. The sheet piling 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 sheet piling has been placed, the Contractor shall remove portions of the sheet piling, as necessary, enlarge the test pits as directed, and replace the sheet piling 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 sheet piling (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 6.08 - "NO TEXT"**

**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



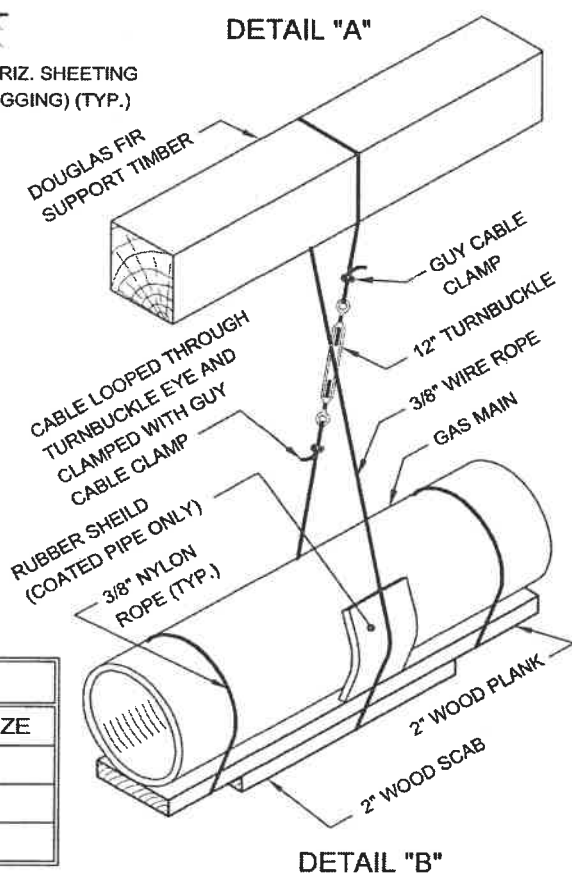
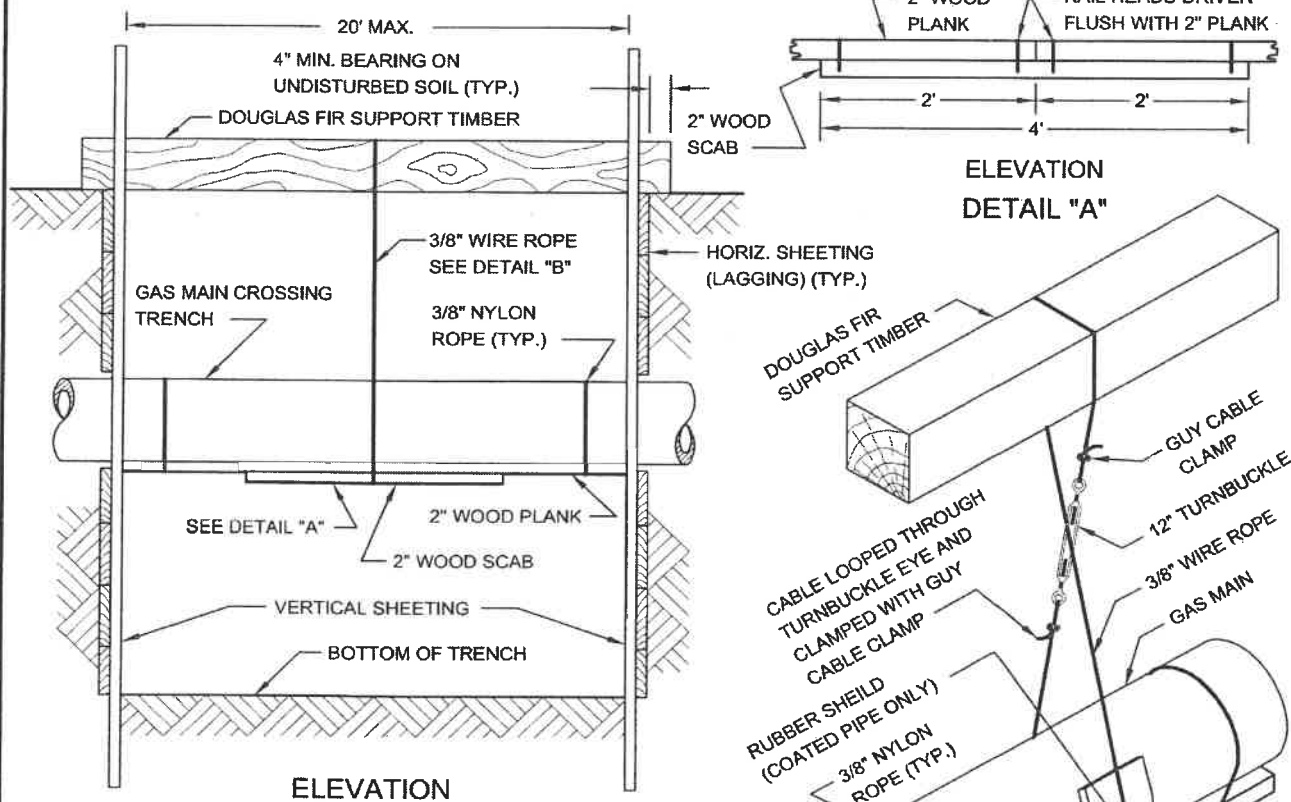
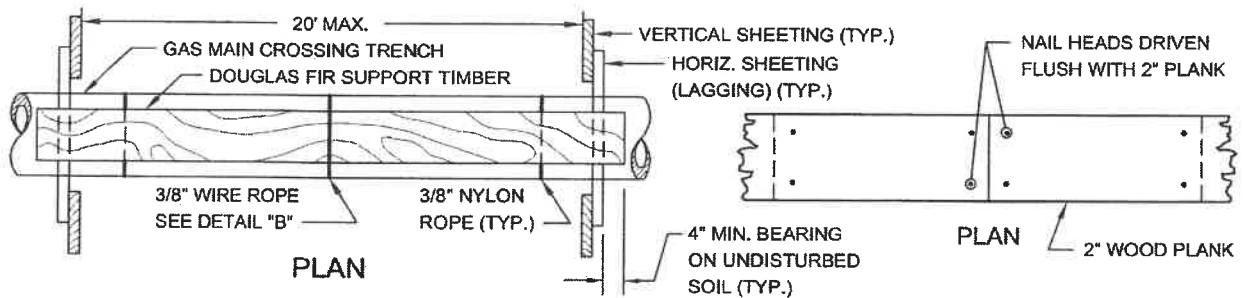
#### **IV - STANDARD SKETCHES; GAS COST SHARING WORK**

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

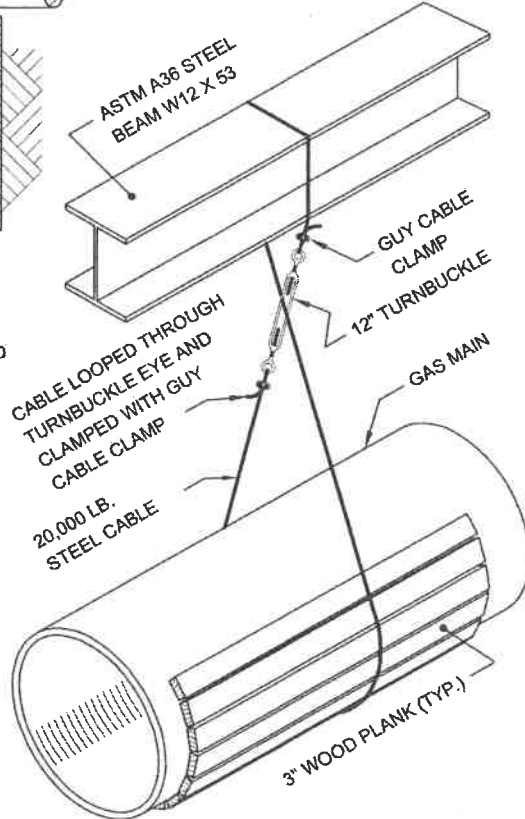
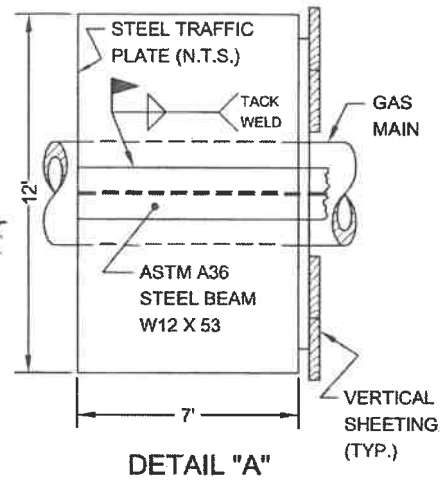
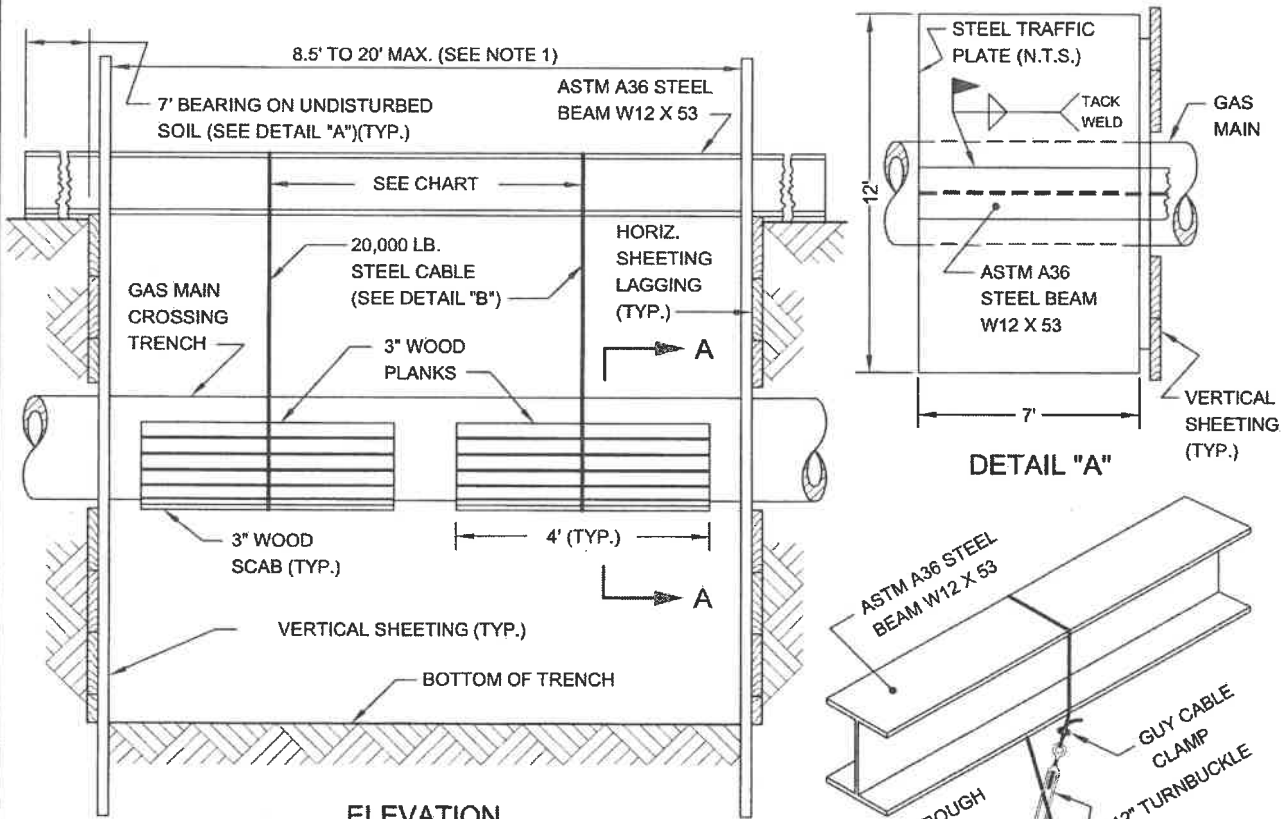


CABLE SUPPORT		TIMBER SUPPORT	
MAIN TYPE	SPACING	MAIN SIZE	TIMBER SIZE
CAST IRON	4' O.C. MAX.	UP TO 6"	6" X 6"
STEEL	10' O.C. MAX.	8" TO 10"	8" X 8"
PLASTIC	10' O.C. MAX.	12" TO 16"	10" X 10"

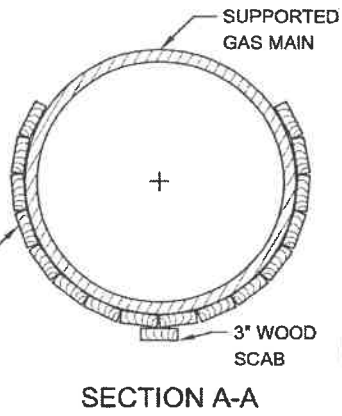
REVISED OCT. 2004 - L. AGRIN  
REVISED JUNE 1993 - J. WONG/TW. PATALANOP, MD

# 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



CABLE SUPPORT	
MAIN TYPE	SPACING
CAST IRON	4' O.C. MAX.
STEEL	10' O.C. MAX.



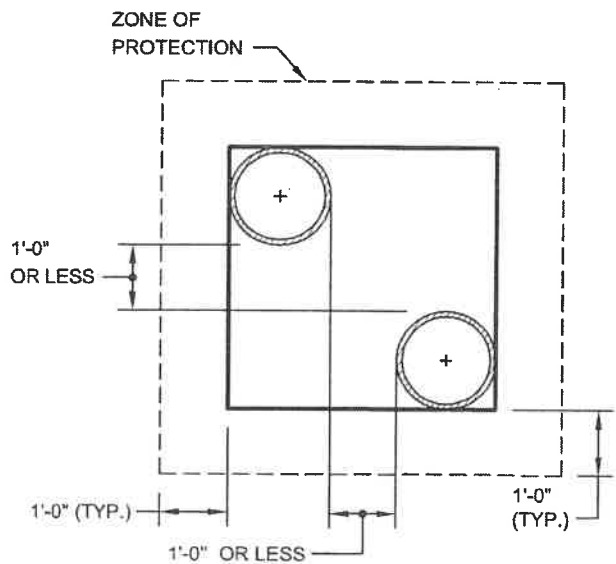
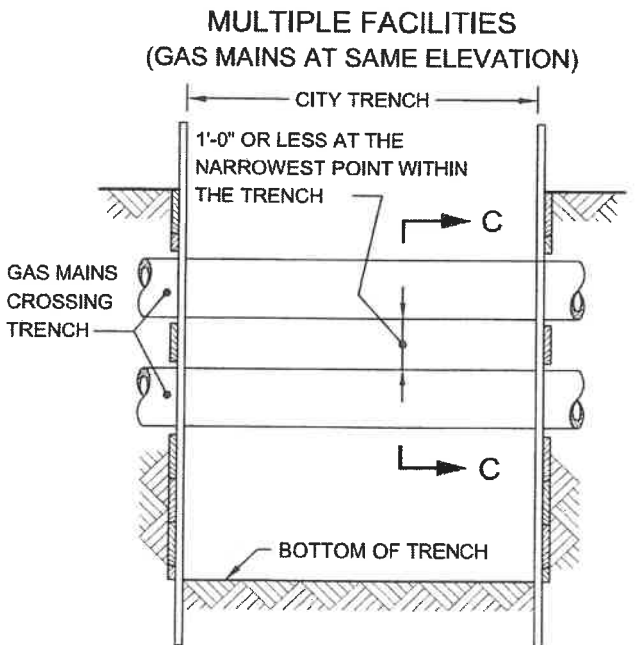
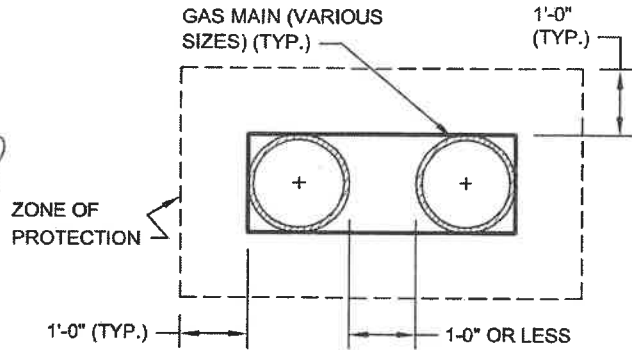
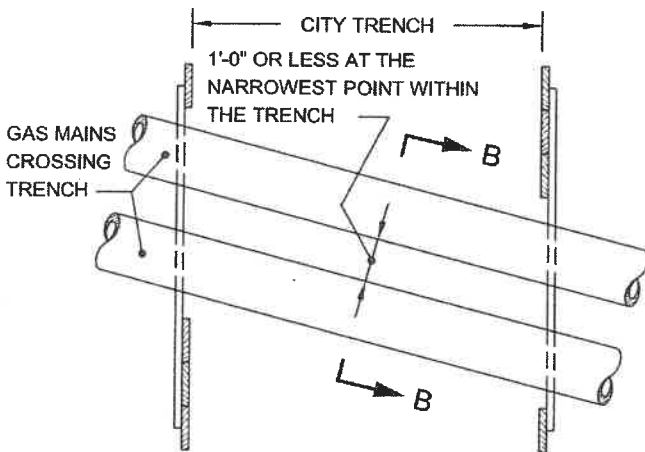
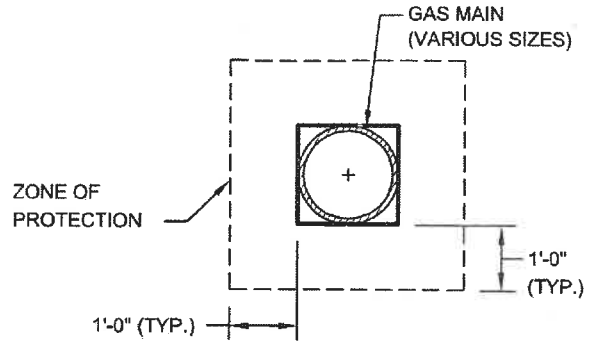
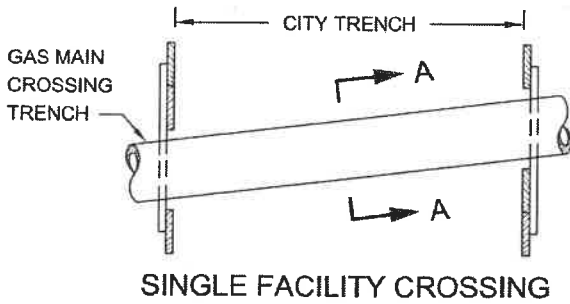
**NOTES:**

- (1) NO SUPPORT IS REQUIRED FOR GAS MAINS OVER 16" DIA. UP TO AND INCLUDING 48" DIA. CROSSING TRENCHES LESS THAN 8.5' WIDE.
- (2) UNDERMINE A MAXIMUM OF 8.5 L.F. OF CAST IRON GAS MAIN AT A TIME.
- (3) SET STEEL CABLE OVER 3" WOOD PROTECTIVE PLANKS AND PLACE AN ADDITIONAL 3" SCAB ON THE BOTTOM OF THE GAS MAIN.
- (4) ADJUST STEEL CABLE UNTIL DEAD WEIGHT OF THE UNDERMINED GAS MAIN HAS BEEN TAKEN UP BY THE OVERHEAD STEEL BEAM SUPPORT.
- (5) ALL SUPPORTS AND STEEL CABLES CAN BE REMOVED ONLY AFTER THE REQUIRED BACKFILL (AROUND AND BELOW GAS MAIN) HAS BEEN COMPACTED IN ACCORDANCE WITH NEW YORK CITY STANDARDS AND AT THE DIRECTIONS OF THE ENGINEER.

REVISED OCT. 1984 - L. ADRIEN  
REVISED JUNE 1986 - J. WONG / W. PATAKOROP / MOY

## GAS COST SHARING WORK (SKETCH NO. 2)

### TYPICAL METHODS OF MEASUREMENT FOR GAS CROSSINGS

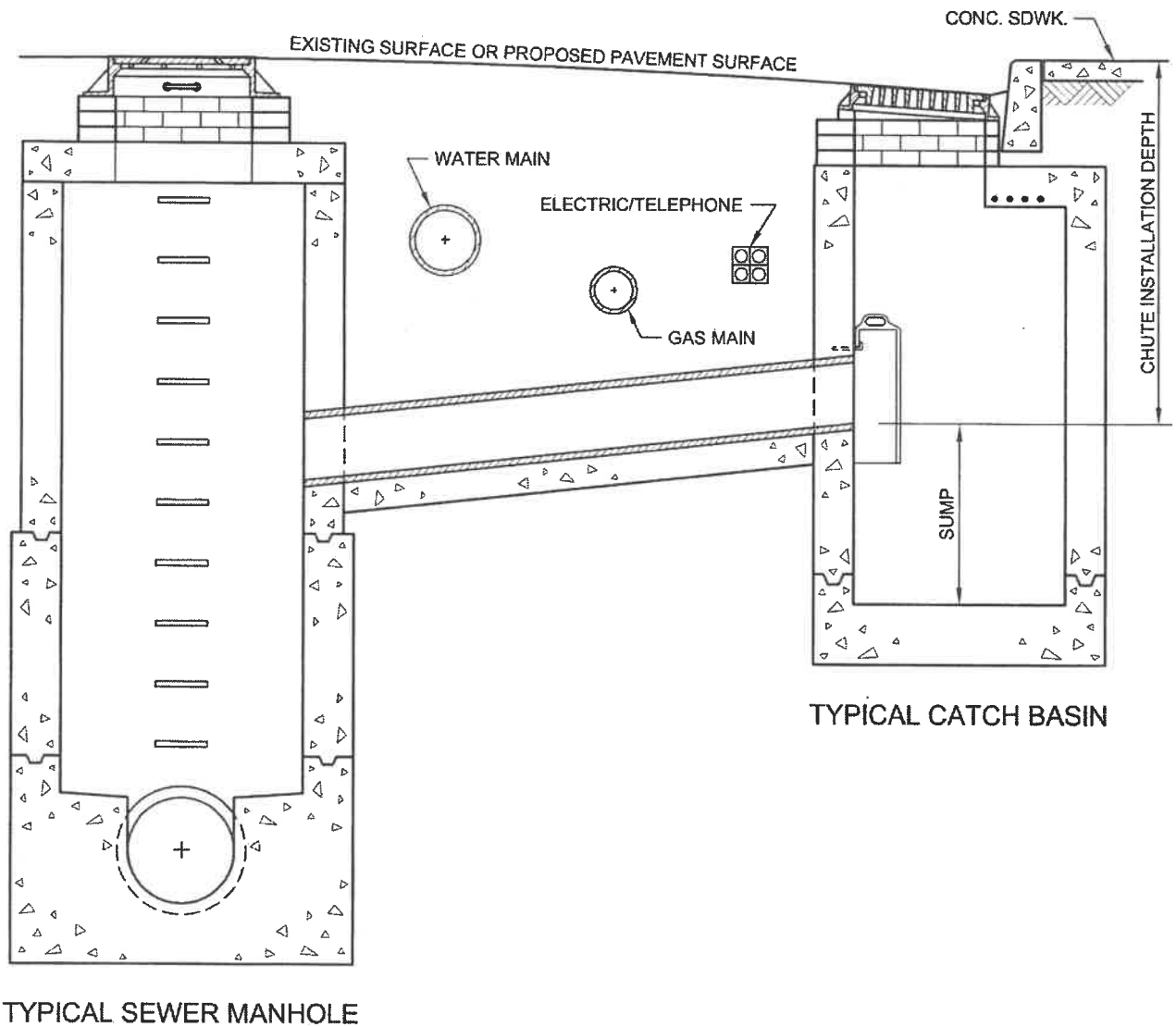


**NOTE:**

GAS MAINS MAY OR MAY NOT BE PARALLEL TO EACH OTHER.

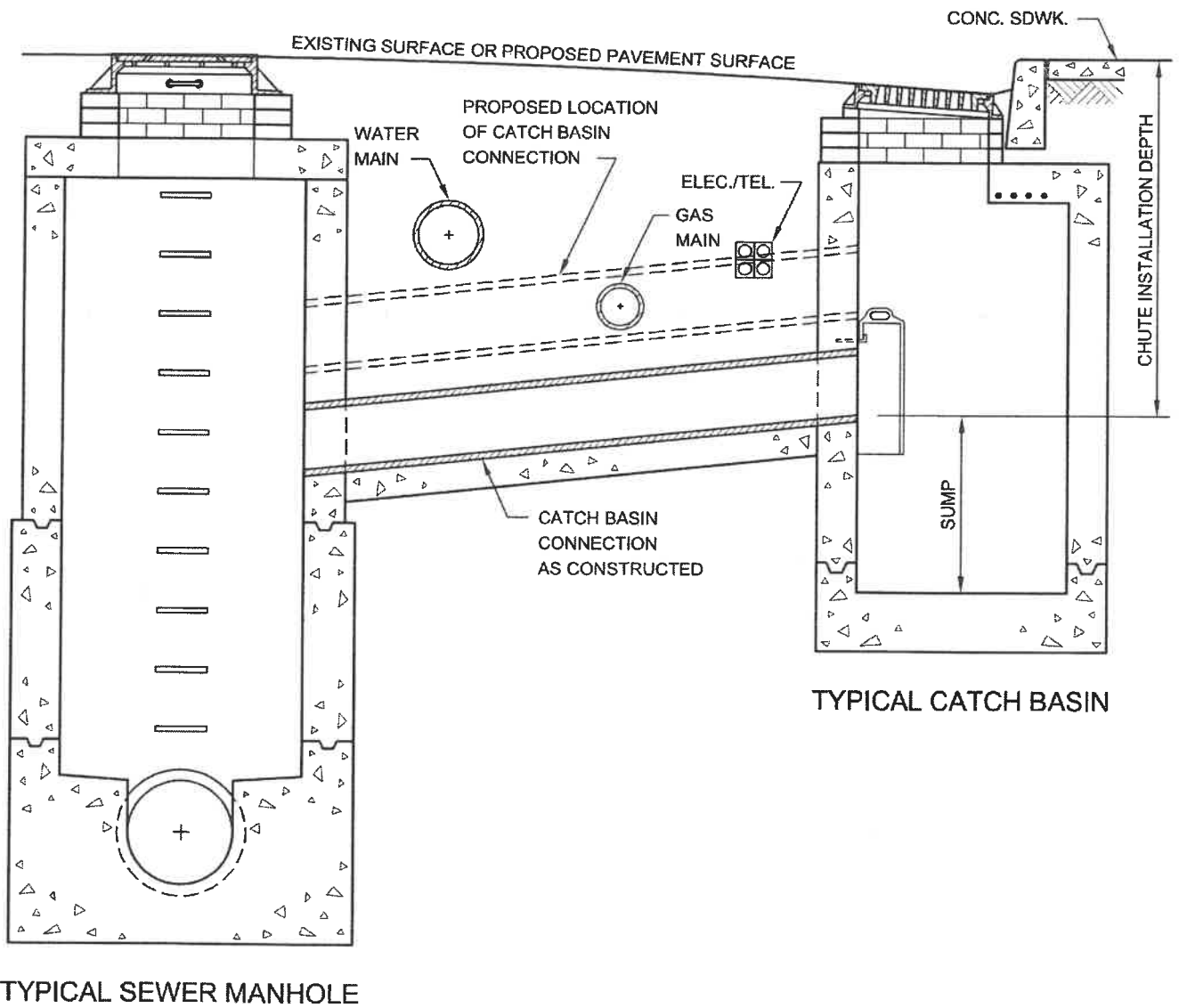
REVISED SET BY L. L. ADRIEN  
REVISED SEPT. 2004 - J. WONG/W. PATALANOP, MOY

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



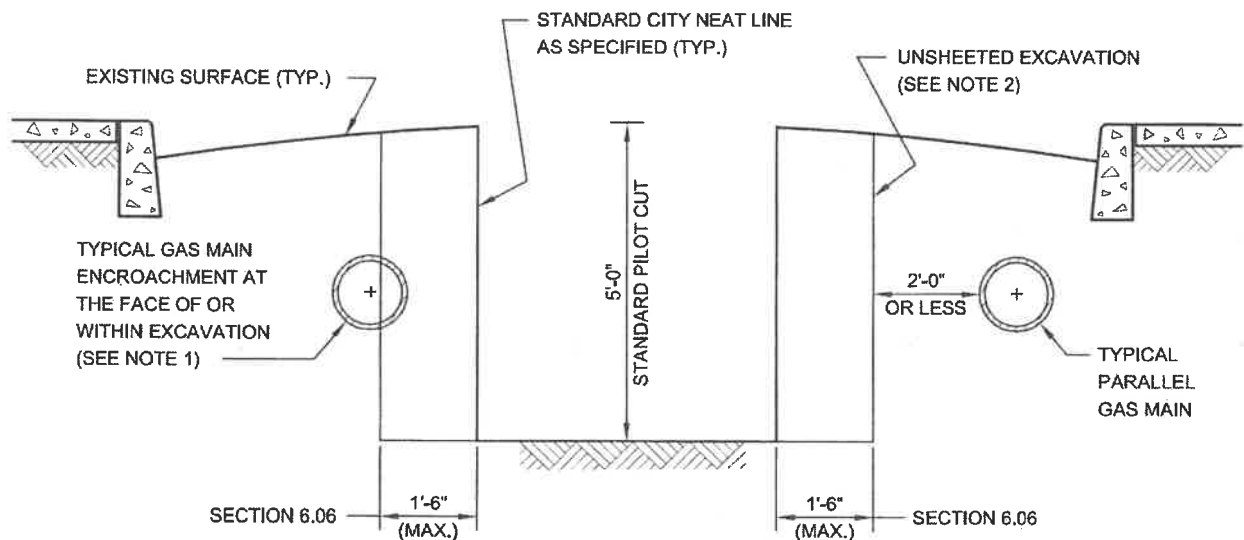
REVISED OCT. 2004 - L. ADRIEN  
REVISED OCT. 1988 - J. WONG/W. PATALANOP, MOY

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



REVISED OCT. 1998 - J. ADRIEN  
 REVISED OCT. 1998 - J. WONG/W. PATALANO/P. MOY

**GAS COST SHARING WORK (SKETCH NO. 5)**  
**GAS MAIN ENCROACHMENT ON AND/OR PARALLEL**  
**TO EXCAVATION OF UNSHEETED TRENCH**



**NOTES:**

- (1) GAS MAIN LOCATED AS SHOWN MAY HAVE TO BE REMOVED BY THE FACILITY OPERATOR PRIOR TO THE START OF CITY EXCAVATION, OTHERWISE, THE CONTRACTOR WILL BE PAID UNDER SECTION 6.06 FOR THE SAID WORK. IF GAS MAIN IS ABANDONED THEN SECTION 6.03 SHALL APPLY.
- (2) EIGHTEEN (18) INCHES FROM STANDARD NEAT LINE IS THE MAXIMUM ALLOWABLE WIDTH OF AREA THAT MAY BE DISTURBED OR EXCAVATED DURING INSTALLATION OF CERTAIN TYPES OF SHEETING SYSTEMS THAT MEET THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS OF THE DEPARTMENT OF DESIGN AND CONSTRUCTION OF THE CITY OF NEW YORK.

REVISED OCT. 2004 - J. ADRIEN  
 REVISED OCT. 1998 - J. WONGW. PATALANOIP.MOY

**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'S RELOCATION WORK, THE CONTRACTOR IS ADVISED TO CONTACT THE GAS COMPANY REPRESENTATIVE:

Neville Jacobs Jr.  
NationalGrid Energy Delivery  
287 Maspeth Avenue  
Brooklyn, NY 11211  
718-963-5612

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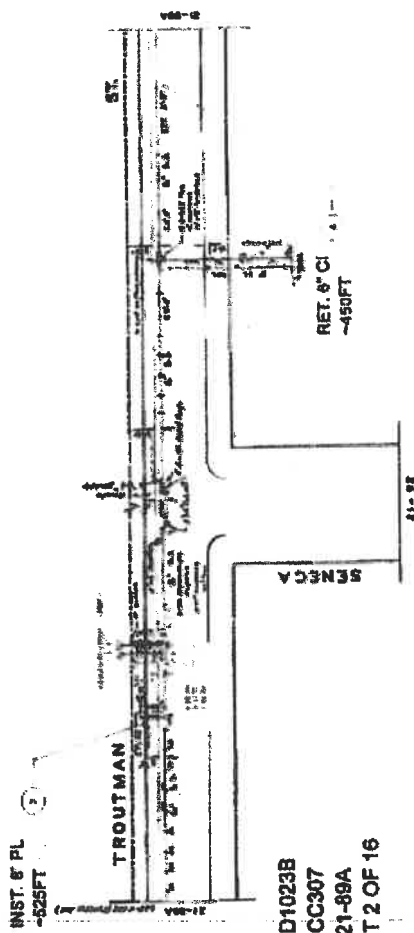
QED-1023B GAS MAIN INSTALLATION

ITEM#:	ON STREET:	X-STREET:	X-STREET-2	SIZE:	MAT'L:	FOOTAGE:	PRSSURE:	REMB:
1	TROUTMAN ST	SCOTT AVE	CYPRESS AVE	8 PL		550 LP	Y	
3	TROUTMAN ST	CYPRESS AVE	SENECA AVE	8 PL		525 LP	Y	
5	TROUTMAN ST	SENECA AVE	ONDERDONK AVE	8 PL		160 LP	Y	
6	TROUTMAN ST	ONDERDONK AVE	INT	12 PL		225 LP	Y	
7	TROUTMAN ST	ONDERDONK AVE	WOODWARD AVE	8 PL		300 LP	Y	
11	TROUTMAN ST	ONDERDONK AVE	WOODWARD AVE	8 PL		120 LP	Y	
12	TROUTMAN ST	WOODWARD AVE	FLUSHING AVE	8 PL		360 LP	Y	
16	TROUTMAN ST	WOODWARD AVE	FLUSHING AVE	8 PL		85 LP	Y	
17	TROUTMAN ST	WOODWARD AVE	FLUSHING AVE	8 PL		45 LP	Y	
20	CYPRESS AVE	WILLOUGHBY AVE	SUYDAM ST	8 PL		275 LP	Y	
22	CYPRESS AVE	SUYDAM ST	HART ST	8 PL		500 LP	Y	
25	CYPRESS AVE	HART ST	DEKALB AVE	8 PL		250 LP	Y	
26	CYPRESS AVE	HART ST	DEKALB AVE	12 PL		150 LP	Y	
30	CYPRESS AVE	DEKALB AVE	INT	12 PL		240 LP	Y	
33	CYPRESS AVE	STOCKHOLM ST	STANHOPE ST	8 PL		170 LP	Y	
35	HIMROD ST	CYPRESS AVE	SENECA AVE	8 PL		325 LP	Y	
37	HIMROD ST	SENECA AVE	ONDERDONK AVE	8 PL		400 LP	Y	
38	HIMROD ST	SENECA AVE	ONDERDONK AVE	12 ST		200 LP	Y	
41	HIMROD ST	ONDERDONK AVE	WOODWARD AVE	8 PL		700 LP	Y	
43	HIMROD ST	ONDERDONK AVE	WOODWARD AVE	8 PL		200 LP	Y	
44	HIMROD ST	WOODWARD AVE	FAIRVIEW AVE	8 PL		200 LP	Y	
47	HIMROD ST	WOODWARD AVE	FAIRVIEW AVE	8 PL		200 LP	Y	
48	HIMROD ST	FAIRVIEW AVE	GRANDVIEW AVE	8 PL		240 LP	Y	
51	HIMROD ST	FAIRVIEW AVE	GRANDVIEW AVE	8 PL		200 LP	Y	

QED-10238 GAS MAIN RETIREMENT

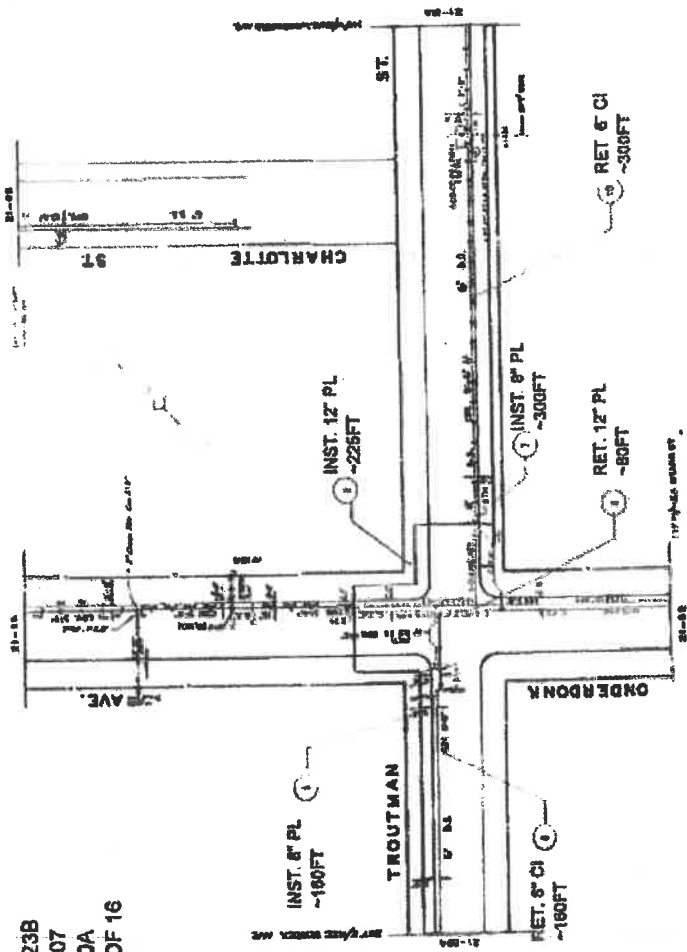
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4	TROUTMAN ST	CYPRESS AVE	SENECA AVE	6 CI	6 CI	450 LP	450 LP	Y
8	TROUTMAN ST	SENECA AVE	ONDERDONK AVE	6 CI	6 CI	160 LP	160 LP	Y
9	TROUTMAN ST	ONDERDONK AVE	INT	12 PL	12 PL	80 LP	80 LP	Y
10	TROUTMAN ST	ONDERDONK AVE	WOODWARD AVE	6 CI	6 CI	300 LP	300 LP	Y
13	TROUTMAN ST	ONDERDONK AVE	WOODWARD AVE	6 CI	6 CI	120 LP	120 LP	Y
14	TROUTMAN ST	WOODWARD AVE	FLUSHING AVE	8 PL	8 PL	55 LP	55 LP	Y
15	TROUTMAN ST	WOODWARD AVE	FLUSHING AVE	6 CI	6 CI	275 LP	275 LP	Y
17	TROUTMAN ST	WOODWARD AVE	FLUSHING AVE	8 PL	8 PL	45 LP	45 LP	Y
18	TROUTMAN ST	WOODWARD AVE	FLUSHING AVE	6 CI	6 CI	85 LP	85 LP	Y
19	TROUTMAN ST	WOODWARD AVE	FLUSHING AVE	6 CI	6 CI	25 LP	25 LP	Y
21	CYPRESS AVE	WILLOUGHBY AVE	SUYDAM ST	6 CI	6 CI	250 LP	250 LP	Y
23	CYPRESS AVE	SUYDAM ST	HART ST	6 CI	6 CI	480 LP	480 LP	Y
24	CYPRESS AVE	SUYDAM ST	HART ST	6 PL	6 PL	20 LP	20 LP	Y
27	CYPRESS AVE	HART ST	DEKALB AVE	6 PL	6 PL	45 LP	45 LP	Y
28	CYPRESS AVE	HART ST	DEKALB AVE	6 CI	6 CI	190 LP	190 LP	Y
29	CYPRESS AVE	HART ST	DEKALB AVE	12 PL	12 PL	140 LP	140 LP	Y
31	CYPRESS AVE	DEKALB AVE	INT	12 PL	12 PL	170 LP	170 LP	Y
32	CYPRESS AVE	DEKALB AVE	INT	6 ST	6 ST	170 LP	170 LP	Y
34	STOCKHOLM ST	CYPRESS AVE	INT	6 CI	6 CI	235 LP	235 LP	Y
36	HIMROD ST	CYPRESS AVE	SENECA AVE	6 CI	6 CI	420 LP	420 LP	Y
39	HIMROD ST	SENECA AVE	ONDERDONK AVE	12 ST	12 ST	130 LP	130 LP	Y
40	HIMROD ST	SENECA AVE	ONDERDONK AVE	6 CI	6 CI	690 LP	690 LP	Y
42	HIMROD ST	ONDERDONK AVE	WOODWARD AVE	6 CI	6 CI	600 LP	600 LP	Y
45	HIMROD ST	ONDERDONK AVE	WOODWARD AVE	6 CI	6 CI	200 LP	200 LP	Y
46	HIMROD ST	WOODWARD AVE	FAIRVIEW AVE	6 CI	6 CI	200 LP	200 LP	Y
49	HIMROD ST	WOODWARD AVE	FAIRVIEW AVE	6 CI	6 CI	200 LP	200 LP	Y
50	HIMROD ST	FAIRVIEW AVE	GRANDVIEW AVE	6 CI	6 CI	230 LP	230 LP	Y
52	HIMROD ST	FAIRVIEW AVE	GRANDVIEW AVE	6 CI	6 CI	200 LP	200 LP	Y



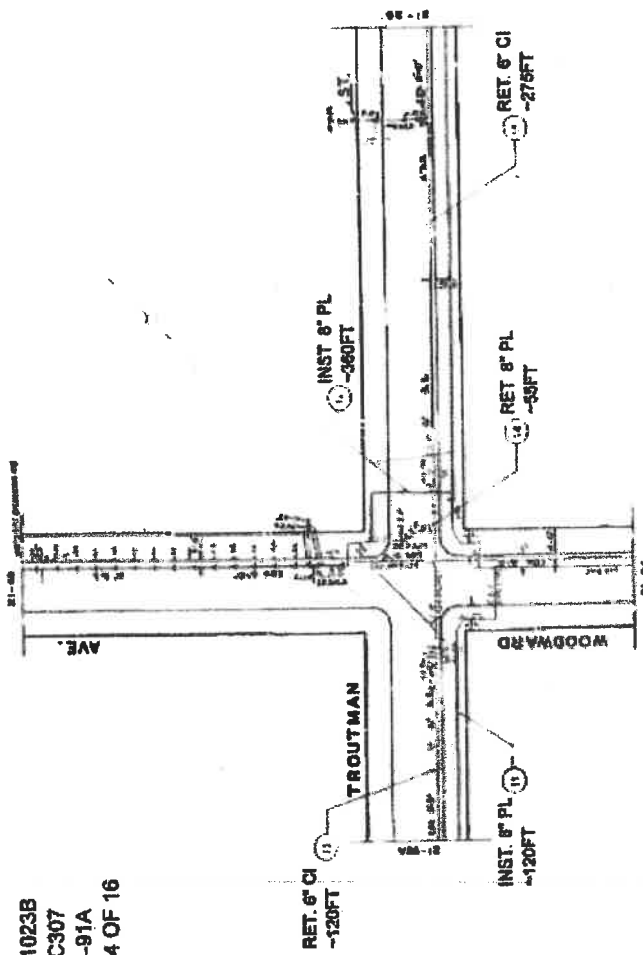


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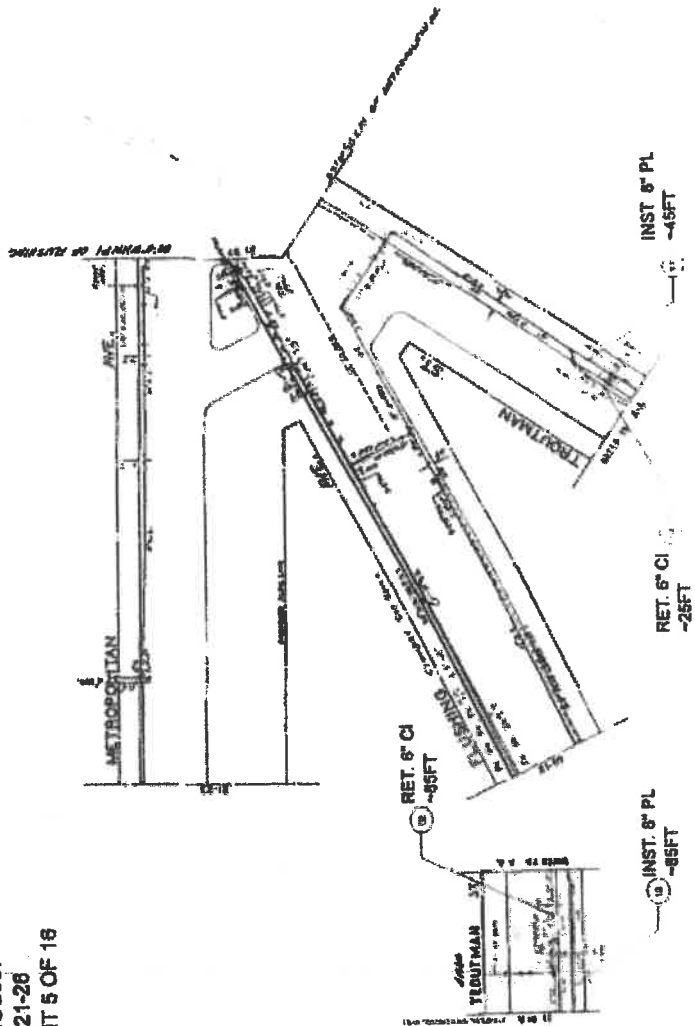
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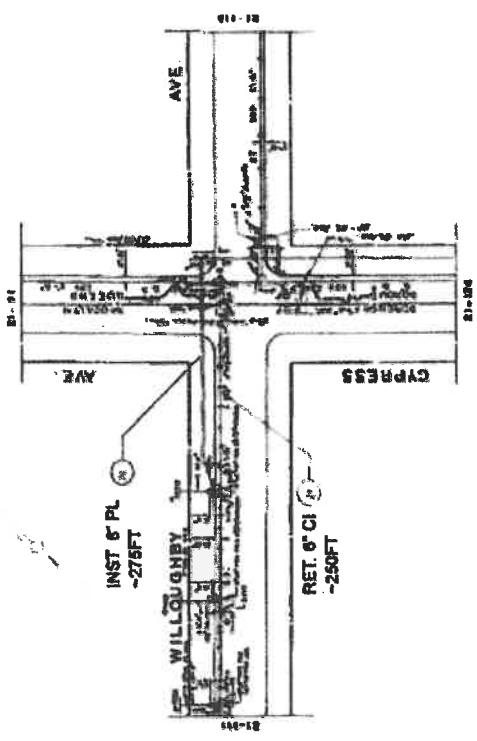


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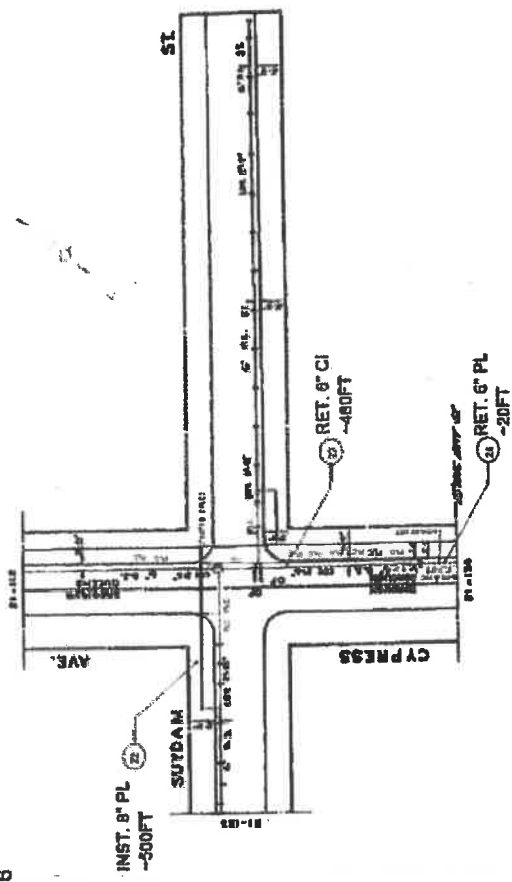
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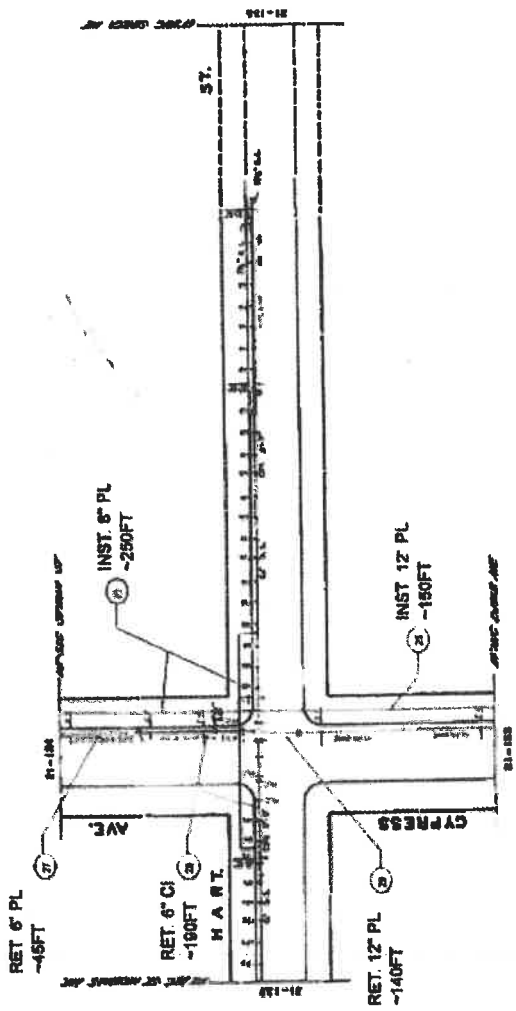
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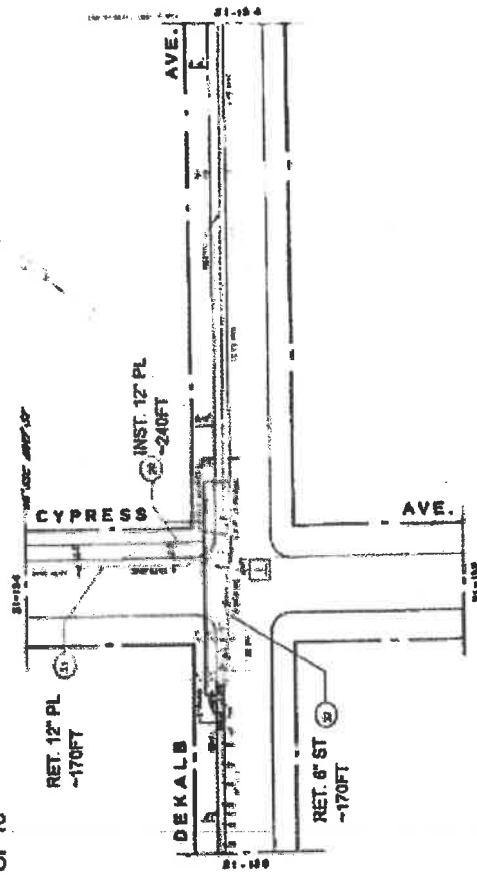
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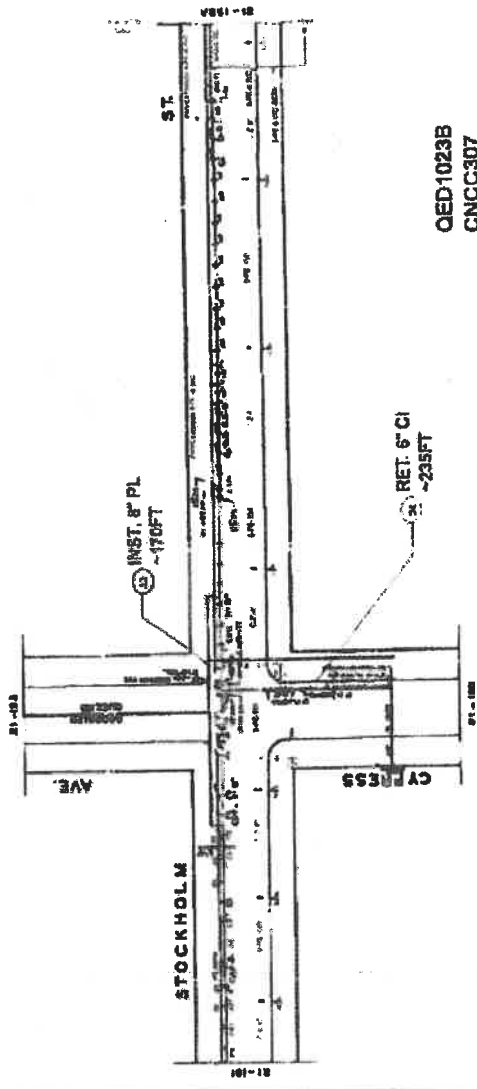




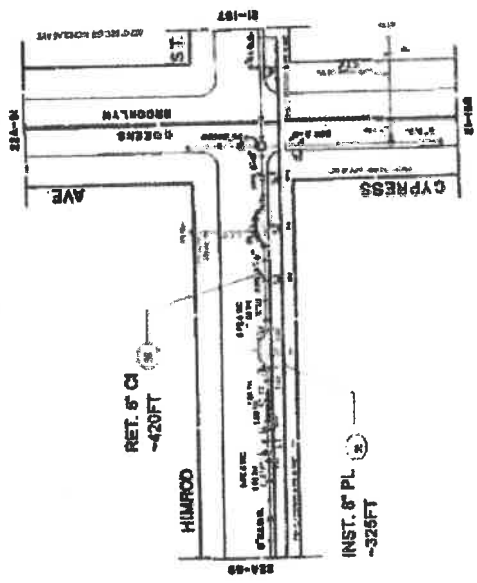
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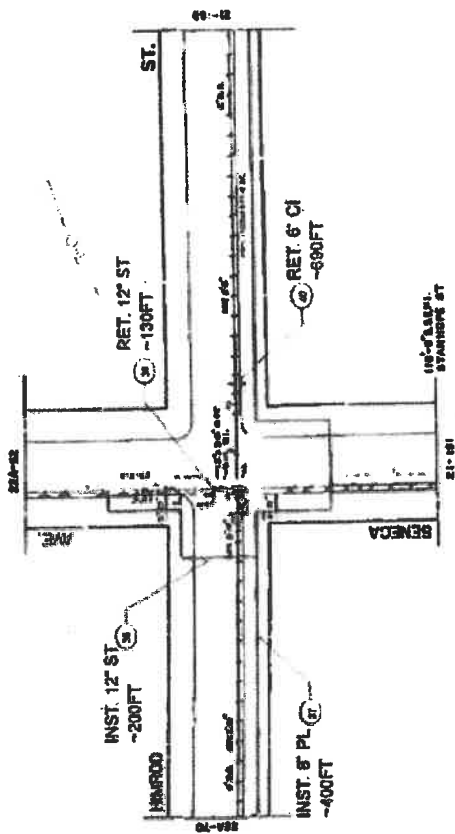




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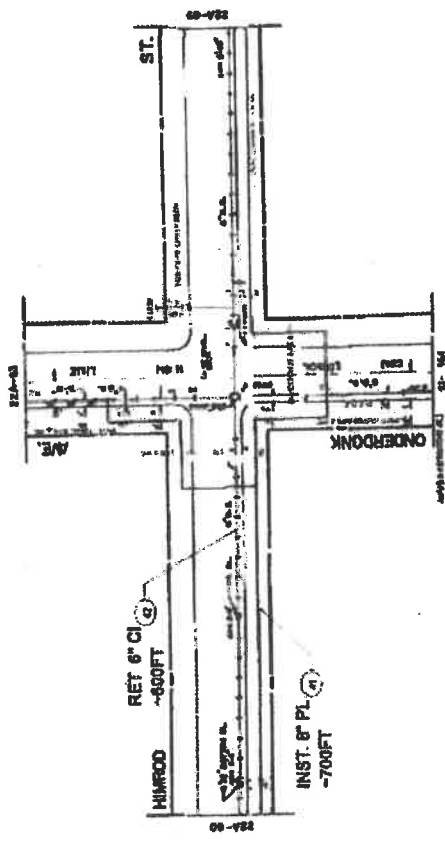


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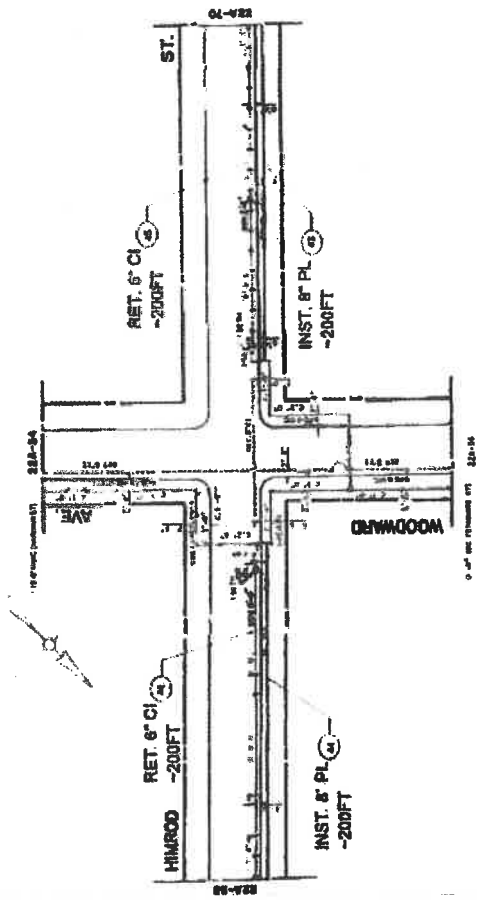


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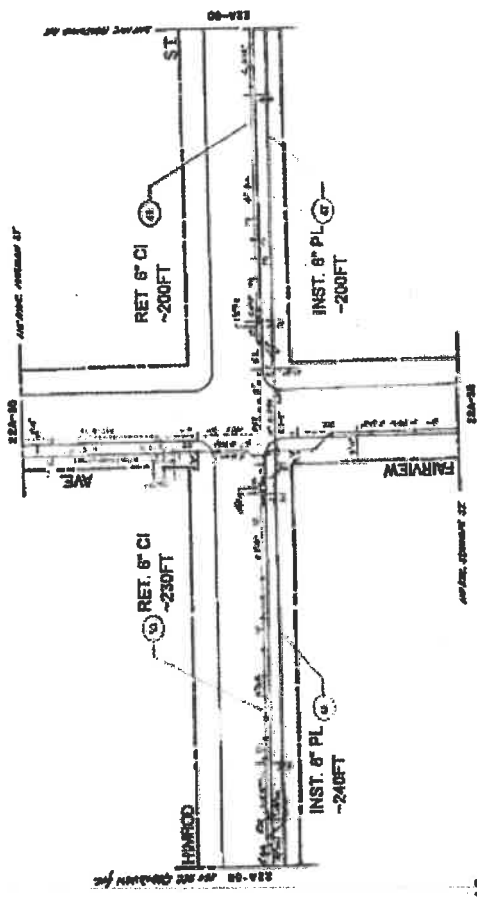


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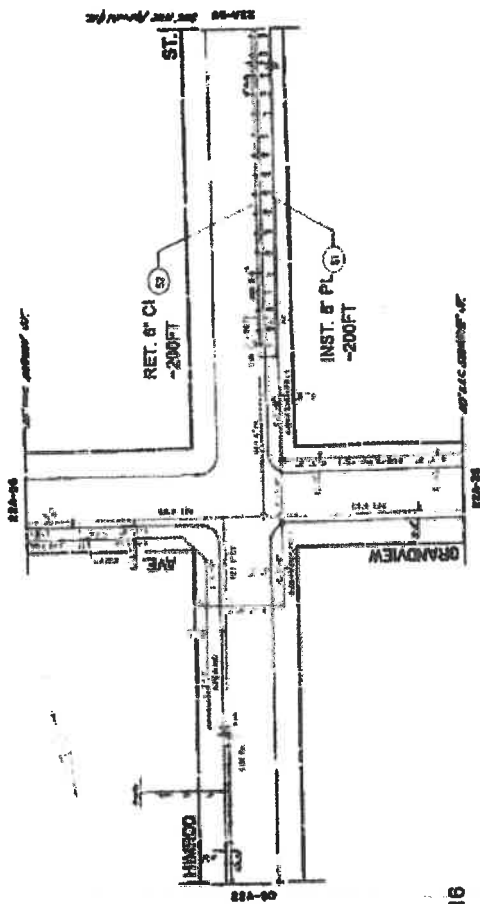


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**VI - LISTING OF APPROXIMATE LOCATIONS OF EP-7 BID  
ITEM QUANTITIES.**

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**SCOPE OF WORK  
SUPPORT AND PROTECTION  
FOR CONTRACT QED1023B**

The City of New York Department of Design and Construction is planning 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 Support & Protect Gas Main Crossing Sewer Up To 24" In Diameter (Ea.)**

3 in Seneca Ave @ Himrod Street

**6.01.4 Support & Protect Gas Main Crossing Sewer 48" Thru 54" In Diameter (Ea.)**

1 in Cypress Ave @ Himrod Street

**6.01.8 Support & Protect Gas Services Crossing Trenches and/or Excavations (Ea.)**

105 in Himrod Street between Cypress Ave and Grandview Ave  
24 in Cypress Ave between Willoughby Ave and Himrod Street  
65 in Troutman Street between Scott Ave and Flushing Ave

**6.01.9 Support & Protect Gas Main Crossing Water Main Up To 20" In Diameter (Ea.)**

1 in Troutman Street @ Cypress Ave  
1 in Troutman Street @ Onderdonk Ave  
1 in Troutman Street @ Woodward Ave  
1 in Cypress Ave @ Willoughby Ave  
1 in Cypress Ave @ Suydam Street  
1 in Cypress Ave @ Hart Street  
1 in Cypress Ave @ Dekalb Ave  
1 in Cypress Ave @ Stockholm Street  
1 in Cypress Ave @ Stanhope Street  
2 in Himrod Street @ Cypress Ave  
1 in Himrod Street @ Seneca Ave  
1 in Himrod Street @ Onderdonk Ave  
1 in Himrod Street @ Woodward Ave  
1 in Himrod Street @ Fairview Ave

**6.01.12 Support & Protect Gas Main Crossing Water Main 48" Thru 54" In Diameter (Ea.)**

1 in Troutman Street @ Cypress Ave  
1 in Troutman Street @ Onderdonk Ave  
1 in Troutman Street @ Woodward Ave

**SCOPE OF WORK  
SUPPORT AND PROTECTION  
FOR CONTRACT QED1023B**

The City of New York Department of Design and Construction is planning 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.

**6.01.13 Support & Protect Gas Main Crossing Water Main 60" In Diameter (Ea.)**

- 1 in Cypress Ave @ Willoughby Ave
- 1 in Cypress Ave @ Suydam Street
- 1 in Cypress Ave @ Hart Street
- 1 in Cypress Ave @ Dekalb Ave
- 1 in Cypress Ave @ Stockholm Street
- 1 in Cypress Ave @ Stanhope Street
- 1 in Himrod Street @ Cypress Ave
- 1 in Himrod Street @ Seneca Ave
- 1 in Himrod Street @ Onderdonk Ave
- 1 in Himrod Street @ Woodward Ave
- 1 in Himrod Street @ Fairview Ave

**6.02 Extra Excavation for the Installation of Catch Basin Sewer Drain Pipes with Gas Interferences**

- 1 in Cypress Ave @ Suydam Street
- 2 in Cypress Ave @ Stockholm Street
- 2 in Cypress Ave @ Stanhope Street

**6.03 Removal of Abandoned Gas Facilities. All Sizes (L.F.)**

6700 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)**

300 in Various Locations as Required

**6.04 Adjust Hardware to Grade Using Spacer Rings/Adaptors (Street repaving) (Ea.)**

48 in Various Locations as Required

**6.05 Adjust Hardware to Grade by Resetting (Road Reconstruction) (Ea.)**

21 in Various Locations as Required

**SCOPE OF WORK  
SUPPORT AND PROTECTION  
FOR CONTRACT QED1023B**

The City of New York Department of Design and Construction is planning 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.

**6.06 Special Care Excavation & Backfilling (C.Y.)**

1500 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.)**

300 in Various Locations as Required



**HAZ - PAGES**

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

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**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.



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

**REPLACEMENT OF TRUNK AND DISTRIBUTION WATER MAIN IN CYPRESS AVENUE  
BETWEEN WILLOUGHBY AVENUE TO HIMROD STREET, ETC.**

**BOROUGH OF QUEENS AND BROOKLYN  
CITY OF NEW YORK**

**Capital Project ID: QED1023B**

**Prepared By:**



**30-30 Thomson Avenue, 3<sup>rd</sup> Floor  
Long Island City, New York 11101**

**December 11, 2017**

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## ITEM 8.01 C1 HANDLING, TRANSPORTING, & DISPOSAL OF NON-HAZARDOUS CONTAMINATED SOILS

### 8.01 C1.1 WORK TO INCLUDE

General: This work shall consist of the handling, transportation, and disposal of non-hazardous contaminated soils. The materials covered by this specification are soils that are contaminated with petroleum or chemical products but cannot be classified as hazardous waste. For the purpose of this specification, soil shall be defined as any material excavated below the pavement and base for pavement.

Non-hazardous contaminated soils are defined as soils exhibiting one or more of the following characteristics:

- ◆ Elevated Photo-Ionization Detector (PID) readings, subsequently confirmed by lab analysis
- ◆ Visual evidence of contamination
- ◆ Petroleum and/or chemical odors
- ◆ Soils that have been documented as contaminated in previous environmental reports

Non-hazardous contaminated soils must be stockpiled at an off-site approved location or secured on-site by the Contractor, meeting all required Federal, State and Local stipulations. Sampling and laboratory analysis must be conducted to determine if the soils are hazardous, unless the alternative procedure as defined under subsection 8.01 C1.1 A.5 has been agreed upon by treatment facilities. Contaminated soils determined to be non-hazardous shall be handled in accordance with the specifications herein for Item 8.01 C1. Contaminated soils determined to be hazardous shall be handled in accordance with the specifications for Item 8.01 H – Handling, Transporting and Disposal of Hazardous Soils.

The Contractor shall retain the services of an independent Environmental Consultant, as specified under Item 8.01 S – Health and Safety, to oversee the work required under this Item.

Non-hazardous soils shall be delivered to the disposal or treatment facility within thirty (30) calendar days after excavation.

The Contractor shall conduct sampling and analysis of the impacted soils as specified under Item 8.01 C2 – Sampling and Testing of Contaminated/Potentially Hazardous Soils for Disposal Parameters. The laboratory results shall be forwarded to DDC Program 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:

1. The Contractor's procedures for identifying non-hazardous contaminated soils during excavation, including the specific model and manufacturer of intended organic vapor monitoring equipment and calibration procedures to be used. It should also include the training and experience of the personnel who will operate the equipment.
2. The Contractor's procedures for safely handling non-hazardous contaminated soils. The procedures must include personnel safety and health as well as environmental protection considerations.
3. Name, address, New York State Department of Health's (DOH) Environmental Laboratories Accreditation Program (ELAP) status and telephone number of the proposed laboratory for analysis of representative soil samples. The ELAP for the intended analysis must approve the laboratory.
4. Identification of the Contractor's proposed waste transporter(s). This information shall include:
  - a. Name and Waste Transporter Permit Number
  - b. Address
  - c. Name of responsible contact for the hauler
  - d. Telephone number for the contact
  - e. Any and all necessary permit authorizations for each type of waste transported
  - f. Previous experience in performing the type of work specified herein
5. All staging/stockpiling areas (if stockpiling areas are intended and available), or alternate procedures that will be used. Alternate procedures may include, but are not limited to, agreements from the intended disposal or treatment facilities to accept boring data and/or analytical data previously obtained during the site characterization so that materials may be directly loaded into vehicles for shipment to the disposal facility.
6. A backup facility should the staging/stockpile areas become unavailable, insufficient in area or not be present by some other unforeseen difficulty.
7. Identification of the Contractor's two proposed Treatment Storage or Disposal (TSD) facilities for non-hazardous contaminated soils (primary and back-up) for final disposal of the soils. The primary TSD shall be an approved soil recycling/treatment facility. The backup facility may be a recycling/treatment facility or a New York State Department of Environmental Conservation (DEC) approved lined landfill or other facility approved by DEC to accept this material. The information required for each facility shall include:
  - a. Facility name and the State identification number
    - (1) Facility location
    - (2) Name of responsible contact for the facility
    - (3) Telephone number for contact
    - (4) Signed letter of agreement to accept waste as specified in this contract
    - (5) Unit of measure utilized at facility for costing purposes
  - b. A listing of all permits, licenses, letters of approval, and other authorizations to operate, which are currently held and valid for the proposed facility.

- c. A listing of all permits, licenses, letters of approval, and other authorizations to operate which have been applied for by the proposed facility but not yet granted or issued.
  - d. The Contractor shall specify and describe the disposal/containment unit(s) that the proposed facility will use to manage the waste. The Contractor shall identify the capacity available in the units and the capacity reserved for the subject waste.
  - e. The Contractor shall provide the date of the proposed facility's last compliance inspection.
  - f. A list of all active (unresolved) compliance orders (or agreements), enforcement notices, or notices of violations issued to the proposed facility shall be provided. The source and nature of the cause of violation shall be stated, if known.
8. Description of all sampling and field/laboratory analyses that will be needed to obtain disposal facility approval.

#### **8.01 C1.2 MATERIALS**

- A. Containers shall be as required in the United State Department of Transportation (DOT) regulations.
- B. Polyethylene to be placed under (20 mil. thickness minimum) and over (10 mil. thickness minimum) soil piles.
- C. The Contractor shall assure that the waste hauler's appropriate choice of vehicles and operating practices shall prevent spillage or leakage of contaminated material from occurring en route.
- D. The Contractor shall provide, install and maintain any temporary loading facilities on site as required until completion of material handling activities. The location and design of any facilities shall be included in the MHP and be approved by the Program Management, OEGS.

#### **8.01 C1.3 CONSTRUCTION DETAILS**

- A. Material Handling
  - 1. Immediately after excavation of non-hazardous contaminated soil the Contractor shall:
    - a. Load material directly onto trucks/tankers/roll offs for disposal off site; or
    - b. If interim stockpiling is required, place on a minimum of 20 mil. or equivalent plastic ground cloth and cover by minimum of 10 mil. polyethylene sheeting or equivalent to protect against leaching or runoff of contaminants into groundwater or stormwater. Weight or secure the sheeting by appropriate means and seal seams as approved by the DDC to prevent tearing or removal by weather. Grade surrounding surface to provide for positive drainage away from pile. Stockpile shall not exceed 100 cubic yards.
  - 2. Institute appropriate procedures and security measures to ensure the protection of site personnel and the public from contaminated materials as described in the approved MHP and Item 8.01 S - Health and Safety.
  - 3. Any soil encountered that appears to contain unknown contaminants (based on visual, odor, or other observation), or that vary substantially from the material originally identified must be segregated in stockpiles and the independent Environmental

Consultant promptly notified. Construct stockpiles to the same requirements as stated in subsection A.1.b above.

4. Provide any dewatering that is necessary to complete the work. Contaminated water shall be disposed of in accordance with Item 8.01 W1 – Removal, Treatment and Discharge/Disposal of Contaminated Water.
5. Provide and operate field organic vapor test equipment, a PID or a flame ionization detector (FID), to detect general organic vapor levels at intervals of approximately fifty (50) cubic yards of soil excavated, when visual or odor observations indicate the material may substantially differ from the soil previously excavated and/or as directed by the independent Environmental Consultant.

B. Off-Site Transportation to Disposal or Treatment Facility

1. General

- a. The Contractor shall furnish all labor, equipment, supplies and incidental costs required to transport contaminated material from the work area to the off-site disposal or treatment facility, and any other items and services required for transporting contaminated material for disposal at an off-site facility.
- b. The Contractor shall submit the name and location of the facility where an off-site scale is located. The Contractor shall also submit a plan to the DDC for review outlining procedures on controlling trucks leaving the work site and en-route to the off-site scale. The Contractor shall be responsible for tracking all material/vehicles from the site to the off-site scale.
- c. The Contractor shall provide to the DDC certified tare and gross weight slips for each load received at the accepted facility which shall be attached to each returned manifest.
- d. The Contractor shall coordinate the schedule for truck arrival and material deliveries at the job site to meet the approved project schedule.
- e. The Contractor shall inspect all vehicles leaving the project site to ensure that contaminated soils adhering to the wheels or undercarriage are removed prior to the vehicle leaving the site.
- f. The Contractor shall obtain letters of commitment from the waste haulers and the treatment, disposal or recovery facility to haul and accept shipments. The letter shall indicate agreement to handle and accept the specified estimated quantities and types of material during the time period specified in the project schedule and any time extension as deemed necessary.
- g. **The Program 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:*

<u>ITEM NUMBER</u>	<u>ITEM</u>	<u>PAYMENT UNIT</u>
8.01 C1	Handling, Transporting, and Disposal of Non-Hazardous Contaminated Soil	Tons

**ITEM 8.01 C2 SAMPLING AND TESTING OF CONTAMINATED/ POTENTIALLY  
HAZARDOUS SOIL FOR DISPOSAL PARAMETERS**

**8.01 C2.1 WORK TO INCLUDE**

A. Description

The work shall consist of collecting and analyzing representative soil samples for parameters typically requested by the disposal facilities.

B. Sampling and Laboratory Analysis

1. At least thirty (30) days prior to the commencement of work, the Contractor's independent Environmental Consultant must submit a Soil Sampling Plan/Field Sampling Plan (SSP/FSP) and an Investigation Health and Safety Plan to the Program Management, Office of Environmental and Geotechnical Services (OEGS) for review and approval. The SSP/FSP shall include the name, address, DOH's ELAP status, and telephone numbers of the proposed laboratory. The SSP/FSP shall also include training and experience of the personnel who will collect the samples. The Investigation HASP shall identify actual and potential hazards associated with planned sampling field activities and stipulate appropriate health and safety procedures, so as to minimize field personnel exposure to physical, biological, chemical hazards that may be present in the all sampling media.
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/ Potentially Hazardous Soil for Disposal Parameters	Set

## ITEM 8.01 H HANDLING, TRANSPORTING, AND DISPOSAL OF HAZARDOUS SOILS

### 8.01 H.1 WORK TO INCLUDE

General: This work shall consist of the handling, transportation and disposal of soils or materials that are listed as hazardous wastes or exhibit any of the characteristics of a hazardous waste, namely ignitability, corrosivity, reactivity, and toxicity, as defined in 6 NYCRR Part 371, Section 371.3 and 40 CFR Section 261. For the purpose of this specification, soils shall be defined as any materials excavated below the pavement and base for pavement.

Contaminated soils determined to be hazardous under Item 8.01 C2 shall be handled, transported, and disposed of under Item 8.01 H in accordance with the specifications herein.

The independent Environmental Consultant retained by the Contractor, as specified under Item 8.01 S – Health and Safety, shall conduct sampling and analysis of above soils to determine which soils are hazardous.

All work under Item 8.01 H shall be performed under the direct supervision of the Contractor's Environmental Consultant, as approved by the Program 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. 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:
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.**
  - j. No materials shall be transported until approved by the DDC.
5. Off-Site Disposal

- a. The Contractor shall be responsible for acceptance of the materials at an approved TSD facility, for ensuring that the facility is properly permitted to accept the stated materials, and that the facility provides the stated storage and/or disposal services.
  - b. In the event that the identified and approved facility ceases to accept the stated materials or the facility ceases operations, it is the Contractor's responsibility to locate an alternate approved and permitted facility(ies) for accepting materials. The Contractor is responsible for making the necessary arrangements to utilize the facility(ies), and the alternate facility(ies) must be approved in writing by the DDC in the same manner and with the same requirements as for the original facility(ies). This shall be done with no extra cost or delay to the City.
  - c. The Contractor shall submit all results and weights to the DDC.
  - d. **The Contractor is responsible to pay all fees associated with the generation and disposal of all excavated hazardous waste. These fees include, but are not limited to, the New York State Department of Finance and Taxation (DFT) quarterly fees for hazardous waste and the New York State DEC annual hazardous waste regulatory fee program. The Contractor shall submit a copy of proof of payment to the DDC and Program Management, OECS.**
6. Equipment and Vehicle Decontamination
- The Contractor shall design and construct a portable decontamination station to be used to decontaminate equipment and vehicles exiting from the exclusion zone. The cost for this work shall be paid under Item 8.01 S - Health and Safety. Disposal of decontamination liquids is described under Item 8.01 W1 – Removal, Treatment and Discharge/Disposal of Contaminated Water.

7. Record Keeping

The Contractor shall obtain manifest forms, and complete the shipment manifest records required by the appropriate regulatory agencies for verifying the material and quantity of each load in unit of volume and weight. Copies of each manifest shall be submitted to the DDC within four (4) business days following shipment, and within three (3) business days after notification of receipt of the facility. Any manifest discrepancies shall be reported immediately to the DDC and be resolved by the Contractor to the satisfaction of the DDC.

**8.01 H.4 METHOD MEASUREMENT**

Quantities for hazardous soil shall be measured in tons satisfactorily delivered to the treatment, storage or disposal facility. The tonnage will be determined by off-site truck scales, as per subsection 8.01 H1.3.B.2, that are capable of generating load tickets.

**8.01 H.5 PRICE TO COVER**

- A. The unit price bid per ton for Item 8.01 H shall include the cost of furnishing all labor, materials, equipment, plan, and insurance for excavation, handling, transportation, disposal, documentation, permits, fees, taxes, stockpiling, hauling, and any other incidentals necessary to complete the work as specified herein for handling, transporting and disposal of hazardous soils.
- B. Final disposal of non-hazardous materials shall be paid for under Item 8.01 C1 – Handling, Transporting and Disposal of Non-Hazardous Soils. Disposal of decontamination water shall



be paid under Item 8.01 W1 – Removal, Treatment and Discharge/Disposal of Contaminated Water.

C The independent Environmental Consultant shall be paid under Item 8.01 S – Health and Safety.

D. Backfill will be paid for under its respective item.

*Payment will be made under:*

<u>ITEM NUMBER</u>	<u>ITEM</u>	<u>PAYMENT UNIT</u>
8.01 H	Handling, Transporting, and Disposal of Hazardous Soils	Tons

## ITEM 8.01 S HEALTH AND SAFETY

### 8.01 S.1 WORK TO INCLUDE

#### Health and Safety Requirements

##### A. Scope of Work

It is the Contractor's responsibility to stage and conduct his work in a safe manner. The Contractor shall implement a Health and Safety Plan (HASP) for contaminated/hazardous soil intrusive activities as set forth in Occupational Safety and Health Administration (OSHA) Standards 1910.120 and 1926.650-652. The Contractor shall ensure that all workers have at a minimum hazard awareness training. The Contractor shall segregate contaminated work area in secured exclusion zones. These zones shall limit access to Contractor personnel specifically trained to enter the work area. The exclusion zone shall be set up to secure the area from the public and untrained personnel. The project health and safety program shall apply to all construction personnel including persons entering the work area. In addition, the Contractor shall protect the public from on-site hazards, including subsurface contaminants associated with on-site activities. The HASP shall be signed off by a Certified Industrial Hygienist and reviewed by Program 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, a written HASP, as specified herein, to Program Management, OEGS for review and comment. The written HASP shall be submitted, within thirty (30) calendar days after the availability of analytical results of the soil and groundwater testing, as required under Section 8.01 C2 and Section 8.01 W2. 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
  - 1. Payment shall account for furnishing, installing, and maintaining all spill control equipment and facilities. Payment will include equipment and personnel to perform emergency measures required to contain any spillage and to remove spilled materials and soils or liquids that become contaminated due to spillage during work within the exclusion zones and handling of excavated soils and liquids from these areas. This collected spill material will be properly disposed of.
  - 2. Payment under this item shall not include testing, handling, transportation or disposal of petroleum-contaminated/potentially hazardous soils excavated during construction. The price for this work will be paid for under Items 8.01 C1 – Handling, Transporting and Disposal of Non-Hazardous Contaminated Soils, 8.01 C2 – Sampling and Testing of Contaminated/Potentially Hazardous Soil for Disposal Parameters or 8.01 H – Handling, Transporting and Disposal of Hazardous Soils, as appropriate.
- F. Dust Control

Payment shall account for furnishing, installing, and maintaining dust control equipment and facilities to be used whenever applicable dust levels are exceeded. Payment will include all necessary labor, equipment, clean water, foam, and all other materials required by the Dust Control Plan. The DOH Community Air Monitoring Plan (CAMP) may be used as guidance.
- G. Vapor/Odor Suppression

Payment shall account for furnishing, installing and maintaining vapor/odor control equipment and facilities to be used whenever organic vapor monitoring or the presence of odors indicates that vapor suppression is required to protect workers or the public. Payment will include all

necessary labor, equipment, clean water, foam and all other materials required by the Vapor/Odor Suppression Plan.

H. Mobilization/Demobilization

1. Mobilization

Payment shall include but not be limited to:

- a. All work required to furnish, install and maintain all signs, fencing, support zone facilities, parking areas and all temporary utilities;
- b. All work required to furnish, install, and maintain an office space with phone and utilities for health and safety personnel;
- c. All work required for complete preparation of lay down area for roll-off containers, including sampling, and any required fencing;
- d. All direct invoiced cost from bonding companies and government agencies for permits and costs of insurance; and
- e. All other items and services required for mobilization and site preparation.

2. Demobilization

Payment shall include but not be limited to: All work required to sample the area; remove from the site all equipment, temporary utilities and supporting facilities; performance of necessary decontamination and repairs; disposal of disposable equipment and protective gear and other items and services required for complete demobilization.

*Payment will be made under:*

<u>ITEM NUMBER</u>	<u>ITEM</u>	<u>PAYMENT UNIT</u>
8.01 S	Health and Safety	Lump Sum

## **ITEM 8.01 W1 REMOVAL, TREATMENT, AND DISCHARGE/DISPOSAL OF CONTAMINATED WATER**

### **8.01 W1.1 WORK TO INCLUDE**

General: This work shall consist of the proper removal and disposal of all contaminated groundwater and decontamination water generated during construction operations. The Contractor shall be solely responsible for the proper disposal or discharge of all contaminated water generated at the job site. The Contractor will have the option of treating water on-site for discharge to the combined sanitary/storm sewer system or removing contaminated water for off-site disposal. The Contractor shall be responsible to choose a method compatible to the construction work and shall be compensated on a per day basis regardless of method employed. The Contractor will be compensated for only those days where the system is in full operation.

The Contractor shall retain a dewatering/water treatment Specialist (hereinafter the "Specialist") and laboratory as specified under Item 8.01 W2 – Sampling and Testing of Contaminated Water, to conduct any testing that may be required for disposal of impacted water.

The dewatering/water treatment Specialist is responsible to obtain all permits; perform all water sampling, testing; and provide ancillary services related to dewatering and water treatment. The Specialist shall at a minimum provide documentation to the Program 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.

##### **A. On-site treatment and discharge into New York City combined sanitary/storm sewers.**

1. Regulations: The Contractor shall comply with all applicable regulations. This includes but may not be limited to:  
Title 15-New DEP Sewer Use Regulations.
2. Permits: The Contractor is solely responsible to obtain all necessary and appropriate Federal, State and Local permits and approvals. The Contractor will be responsible for performing all and any system pilot tests required for permit approval. This includes but may not be limited to:
  - a. Industrial waste approval for the New York City sewer system.
  - b. Groundwater discharge permit for the New York City sewer system (DEP Division of Sewer Regulation and Control), if discharge to sewer exceeds 10,000 gallons per day.
  - c. The Contractor shall comply with DEC State Pollutant Discharge Elimination System (SPDES) Permit Number GP-0-10-001, General Permit for Stormwater Discharges.
  - d. Long Island well point permit for Brooklyn and Queens sites, if well points are used for dewatering.
  - e. Wastewater quality control application, DEP.
3. The WHP for this portion of the work shall include at a minimum:



- a. Identification and design of Contractor's proposed treatment to assure that the water meets the DEP sewer use guidelines prior to discharge to the sewer, including identification of all materials, procedures, settling or filtering tanks, filters and other appurtenances proposed for treatment and disposal of contaminated water.
- b. The name, address and telephone number of the contact for the Contractor's proposed chemical laboratory, as well as the laboratory's certifications under Federal, State or non-governmental bodies.
- c. The name, address and telephone number of the contact for the Contractor's proposed independent Environmental Consultant.
- d. Copies of all submitted permit applications and approved permits the Contractor have received.

4. Materials

The Contractor shall supply all settling or filtering tanks, pumps, filters, treatment devices and other appurtenances for treatment, temporary storage and disposal of contaminated water. All equipment shall be suitable for the work described herein.

5. Execution

- a. The Contractor is solely responsible for disposal of all water, in accordance with all Federal, State and Local regulations.
- b. The Contractor is solely responsible for any treatment required to assure that water discharged into the sewer is in compliance with all permits and Federal, State and Local statutes and regulations.
- c. The Contractor is solely responsible for the quality of the water disposed of into the sewers.
- d. The Contractor is responsible for sampling and testing of water for the DEP Sanitary/Combined and Storm sewer Effluent Limit concentrations. The quality of the data is the Contractor's responsibility. Any sampling and testing shall be conducted and paid in accordance with Item 8.01 W2 – Sampling and Testing of Contaminated Water.
- e. The Contractor shall be responsible to maintain the discharge rate to the sewer such that all permit requirements are met, the capacity of the sewer is not exceeded and no surcharging occurs downstream due to the Contractor's actions. Dewatering by means of well points or deep wells will not be allowed in the Boroughs of Brooklyn or Queens where the rate of pumping exceeds forty-five (45) gallons per minute unless the appropriate permit has been secured from the DEC.
- f. Disposal of Treatment Media
  - (1) The Contractor shall be responsible for disposal or recycling of treatment media in accordance with all Federal, State and Local regulations.

- (2) The Contractor shall provide the DDC with all relevant documentation concerning the disposal of treatment media, including manifests, bills of 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:*

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

## ITEM 8.01 W2 SAMPLING AND TESTING OF CONTAMINATED WATER

### 8.01 W2.1 WORK TO INCLUDE

#### A. Description

The work shall consist of sampling and testing of potentially contaminated groundwater, surface runoff within the excavated area and all contaminated water generated during the decontamination process.

#### B. Sampling and Testing

1. The Contractor is responsible, at a minimum, for sampling and testing of contaminated water for the DEP Sanitary/Combined and Storm Sewer Effluent Limit concentrations as listed in Attachment 1, and in accordance with the DDC-approved SSP/FSP and the Investigation HASP, as specified in 8.01 C2. 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: NYCDEP 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 <sup>1</sup>	Daily Limit	Units	Sample Type	Monthly Limit
Non-polar material <sup>2</sup>	50	mg/l	Instantaneous	---
pH	5-11	SU's	Instantaneous	---
Temperature	< 150	Degree F	Instantaneous	---
Flash Point	> 140	Degree F	Instantaneous	---
Cadmium	2	mg/l	Instantaneous	---
	0.69	mg/l	Composite	---
Chromium (VI)	5	mg/l	Instantaneous	---
Copper	5	mg/l	Instantaneous	---
Lead	2	mg/l	Instantaneous	---
Mercury	0.05	mg/l	Instantaneous	---
Nickel	3	mg/l	Instantaneous	---
Zinc	5	mg/l	Instantaneous	---
Benzene	134	ppb	Instantaneous	57
Carbontetrachloride	---	---	Composite	---
Chloroform	---	---	Composite	---
1,4 Dichlorobenzene	---	---	Composite	---
Ethylbenzene	380	ppb	Instantaneous	142
MTBE (Methyl-Tert-Butyl-Ether)	50	ppb	Instantaneous	---
Naphthalene	47	ppb	Composite	19
Phenol	---	---	Composite	---
Tetrachloroethylene (Perc)	20	ppb	Instantaneous	---
Toluene	74	ppb	Instantaneous	28
1,2,4 Trichlorobenzene	---	---	Composite	---
1,1,1 Trichloroethane	---	---	Composite	---
Xylenes (Total)	74	ppb	Instantaneous	28
PCB's (Total) <sup>3</sup>	1	ppb	Composite	---
Total Suspended Solids (TSS)	350 <sup>4</sup>	mg/l	Instantaneous	---
CBOD <sup>5</sup>	---	---	Composite	---
Chloride <sup>5</sup>	---	---	Instantaneous	---
Total Nitrogen <sup>5</sup>	---	---	Composite	---
Total Solids <sup>5</sup>	---	---	Instantaneous	---

**1** All handling and preservation of collected samples and laboratory analyses of samples shall be performed in accordance with 40 C.F.R. pt. 136. If 40 C.F.R. pt. 136 does not cover the

pollutant in question, the handling, preservation, and analysis must be performed in accordance with the latest edition of "Standard Methods for the Examination of Water and Wastewater." All analyses shall be performed using a detection level less than the lowest applicable regulatory discharge limit. If a parameter does not have a limit, then the detection level is defined as the least of the Practical Quantitation Limits identified in NYSDEC's Analytical Detectability and Quantitation Guidelines for Selected Environmental Parameters, December 1988

- 2 Analysis for *non-polar materials* must be done by EPA method 1664 Rev. A. Non-Polar Material shall mean that portion of the oil and grease that is not eliminated from a solution containing N-Hexane, or any other extraction solvent the EPA shall prescribe, by silica gel absorption.
- 3 Analysis for PCB=s is required if *both* conditions listed below are met:
  - 1) if proposed discharge  $\geq$  10,000 gpd;
  - 2) if duration of a discharge  $>$  10 days.Analysis for PCB=s must be done by EPA method 608 with MDL= $\leq$ 65 ppt. PCB's (total) is the sum of PCB-1242 (Arochlor 1242), PCB-1254 (Arochlor 1254), PCB-1221 (Arochlor 1221), PCB-1232 (Arochlor 1232), PCB-1248 (Arochlor 1248), PCB-1260 (Arochlor 1260) and PCB-1016 (Arochlor 1016).
- 4 For discharge  $\geq$  10,000 gpd, the TSS limit is 350 mg/l. For discharge  $<$  10,000gpd, the limit is determined on a case by case basis.
- 5 Analysis for Carbonaceous Biochemical Oxygen Demand (CBOD), Chloride, Total Solids and Total Nitrogen are required if proposed discharge  $\geq$  10,000 gpd.

**ATTACHMENT 2: APPLICABLE REGULATIONS**

Applicable regulations include, but are not limited to:

1. 49 CFR 100 to 179 - DOT Hazardous Materials Transport and Manifest System Requirements
2. New York State Department of Environmental Conservation (DEC), Spills Technology and Remediation Series (STARS) Memo #1
3. 6 NYCRR 360-1 DEC Solid Waste Management Facilities
4. 6 NYCRR 364- Waste Transporter permits
5. Local restrictions on transportation of waste/debris
6. 40 CFR 260 to 272 - Hazardous Waste Management (RCRA)
7. 6 NYCRR 371 - Identification and Listing of Hazardous Wastes
8. 6 NYCRR 372 - Hazardous Waste Manifest System and Related Standards for Generators, Transporters and Facilities
9. 6 NYCRR 373-1 - Hazardous Waste Treatment, Storage and Disposal Facility Permitting Requirements
10. 6 NYCRR 376 - Land Disposal Restrictions
11. Posted weight limitations on roads or bridges
12. Transportation Skills Programs, Inc. 1985 - Hazardous Materials and Waste Shipping Papers and Manifests
13. Other local restrictions on transportation of waste/debris
14. Occupational Safety and Health Administration (OSHA), Standards and Regulations, 29 CFR 1910 (General Industry)
15. OSHA 29 CFR 1910.120 Hazardous Waste Operations and Emergency Response
16. OSHA Safety and Health Standards 29 CFR 1926 (Construction Industry)
17. OSHA 29 CFR 1910.146 Confined Space Entry Standard
18. Standard Operating Safety Guidelines, EPA Office of Emergency and Remedial Response Publication, 9285.1-03
19. NIOSH / OSHA / USCG / EPA Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities (1986)
20. U.S. Department of Health and Human Services (DHHS) "NIOSH Sampling and Analytical Methods," DHHS (NIOSH) Publication 84-100
21. ANSI, Practice for Respiratory Protection, Z88.2 (1980)
22. ANSI, Emergency Eyewash and Shower Equipment, Z41.1 (1983)
23. ANSI, Protective Footwear, Z358.1 (1981)
24. ANSI, Physical Qualifications for Respirator Use, Z88.6 (1984)
25. ANSI, Practice for Occupational and Educational Eye and Face Protection, Z87.1 (1968)
26. Water Pollution Control Federation "Manual of Practice No. 1, Safety in Wastewater Works"

27. NFPA No. 327 "Standard Procedures for Cleaning and Safeguarding Small Tanks and Containers"
28. Occupational Safety and Health Act Confined Space Entry Standard 29 CFR 1910.146.87
29. Department of Transportation 49 CFR 100 through 179
30. Department of Transportation 49 CFR 387 (46 FR 30974, 47073)
31. Environmental Protection Agency 40 CFR 136 (41 FR 52779)
32. Environmental Protection Agency 40 CFR 262 and 761
33. Resource Conservation and Recovery Act (RCRA)
34. Any transporter of hazardous or non-hazardous materials shall be licensed in the State of New York and all other states traversed in accordance with all applicable regulations.

**ATTACHMENT 3: DEFINITIONS**

**Contaminated Groundwater and Decontamination Fluids:** Groundwater within the excavation trench or decontamination water that contains regulated compounds above the NYCDEP Discharge to Sanitary/Combined Sewer Effluent limits.

**Disposal or Treatment Facility:** A facility licensed to accept either non-hazardous regulated waste or hazardous waste for either treatment or disposal.

**Exclusion Zone:** Work area that will be limited to access by Contractor personnel specifically trained to enter the work area only. The exclusion zone will be set up to secure the area from the public and untrained personnel. The project health and safety program will apply to all construction personnel including persons entering the work area.

**Hazard Assessment:** An assessment of any physical hazards that may be encountered on a work site.

**Hazardous Soils:** Soils that exhibit any of the characteristics of a hazardous waste, namely ignitability, corrosivity, reactivity, and toxicity, as defined in 6 NYCRR Part 371, Section 371.3 and 40 CFR Section 261.

**Hazardous Substance Evaluation:** An evaluation of the possible or known presence of any hazardous substances that may be encountered on a job site. This evaluation is included in the Health and Safety Plan and will include the identification and description of any hazardous substances expected to be encountered. Material Safety Data Sheets (MSDS) will be included for each substance.

**Health and Safety Plan:** A plan employed at a work site that describes all the measures that will be taken to assure that all work is conducted in a safe manner, and that the health of the workers and the public will be insured.

**Material Handling Plan:** A plan outlining the methods that will be employed to handle, transport and dispose of contaminated materials.

**Non-Hazardous Contaminated Soils:** Soils which exhibit a distinct chemical or petroleum odor, or exhibit elevated photoionization detector readings but are not classified as hazardous waste under 6 NYCRR Part 371, Section 371.3 and 40 CFR Section 261.

**New York State Health Department's Environmental Laboratory Approval Program:** A program by which the state of New York approves and accredits environmental testing laboratories.

**PCBs:** Polychlorinated biphenyls are a group of toxic compounds commonly used as a coolant in transformers and other electrical components.

**Photoionization Detector:** A hand held instrument used to measure volatile organic compounds in air. The instrument ionizes the organic molecules through the use of an ultraviolet lamp.

**RCRA Hazardous Waste Characteristics:** Characteristics of a material which may indicate the material is hazardous. These include: ignitability, corrosivity, reactivity, and toxicity.

**Total Petroleum Hydrocarbons:** An analytical procedure used to determine the total amount of petroleum compounds in a material.

**ATTACHMENT 4: PHASE II SUBSURFACE CORRIDOR INVESTIGATION REPORT**



**- Final -**

**Phase II Subsurface Corridor Investigation Report**  
**for**  
**Replacement of Trunk and Distribution Water Main in Cypress Avenue**  
**between Willoughby Avenue to Himrod Street, Etc.**  
**Queens and Brooklyn, New York**

DDC PROJECT NO. QED1023B

WOL NO. 12715-LBA-4-11632

CONTRACT REGISTRATION NO. 20151405733

Prepared for:



**Department of  
Design and  
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PROJECT NO. 2011040.242

July 13, 2017

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**EXECUTIVE SUMMARY**

On behalf of the New York City Department of Design and Construction (DDC), Louis Berger & Assoc., PC. (Louis Berger) conducted a Phase II Subsurface Corridor Investigation (SCI) of the QED1023B Corridor, which consists of the replacement of trunk and distribution water mains in the Cypress Avenue area in Queens and Brooklyn, New York. The 1.2-mile long Corridor is located in the Ridgewood section of the Borough of Queens and the Bushwick section of the Borough of Brooklyn, New York (hereinafter referred to as the “Corridor”). The Corridor location is identified on Figure 1 Topographic Corridor Location Map and is comprised of the following street segments:

Street Segments	Length (miles)
Himrod Street from approximately 25 feet southwest of Grandview Avenue to Cypress Avenue	0.47
Cypress Avenue from Himrod Street to Willoughby Avenue	0.30
Willoughby Avenue from Cypress Avenue to approximately 100 feet southwest of Cypress Avenue	0.02
Troutman Street from approximately 50 feet southwest of Metropolitan Avenue to Scott Avenue	0.41

Louis Berger prepared a Phase I Corridor Assessment Report (CAR) dated February 17, 2017, which identified 27 final “High” risk sites, and 16 final “Moderate” risk sites with respect to potential impact on the Corridor, and recommended the completion of a Phase II SCI.

The Phase II SCI was conducted to determine if the Corridor’s environmental condition may potentially impact proposed construction activities. The proposed depth of excavation for the DDC infrastructure project is estimated to be 12 feet below grade (ftbg). Based on the review of available information provided by the DDC, and discussions with the DDC Project Manager, Louis Berger proposed the advancement of 20 soil borings along the Corridor area to characterize soils and groundwater (if observed) that may be encountered during construction.

The Phase II SCI was conducted on May 26 through June 6, 2017, and consisted of the following components:

### Scope of Work

- The advancement of 20 soil borings (SB01 through SB20), utilizing hand tools and Geoprobe® drill rig with direct push technology. Each soil boring was advanced to terminal depths ranging between 2 and 15 ftbg;
- Field screening, classification and identification of soils from surface grade to the terminal depth of each boring. Soil samples were visually classified in the field using the Burmeister Classification, Unified Soil Classification System (USCS), and Munsell Rock Color charts. Field screening of soils consisted of visual and olfactory indicators of impacts, as well as screening with a photoionization detector (PID);
- The collection of one (1) grab soil sample from each boring. The grab soil samples were collected from either the 6-inch interval above the water table (when encountered), 6-inch interval above the bottom of the boring (where recovery allowed), or from the 6-inch interval showing the highest potential for contamination based on field observation. The soil samples were analyzed for Target Compound List (TCL) Volatile Organic Compounds (VOCs) using US Environmental Protection Agency (USEPA) Method 8260C;
- The collection of one (1) composite waste characterization soil sample from each boring. The waste characterization sample was a composite from ground surface to end of boring (where recovery allowed). The waste characterization sample was analyzed for Polycyclic Aromatic Hydrocarbons (PAHs) by USEPA Method 8270C, Total Petroleum Hydrocarbons (TPH-DRO/GRO) by USEPA 8015B, Polychlorinated Biphenyls (PCBs) by USEPA Method 8082A/608, Toxicity Characteristic Leaching Procedure (TCLP) Metals (Resource Conservation and Recovery Act [RCRA] 8) by USEPA Method 1311/6010B, and RCRA Characteristics, including ignitability, reactivity and corrosivity, by USEPA Methods 9012B/9034, 1030/1010A, and 9045C, respectively, as well as Paint Filter Test by USEPA Method 9095B, for waste classification purposes; and,
- The preparation of this report, which includes tables summarizing the laboratory analytical results, and figures depicting boring locations, significant Corridor features and, if applicable, contamination occurrence and distribution.

In order to evaluate subsurface soil quality for waste characterization purposes, laboratory analytical results of grab and composite soil samples were compared with regulatory standards identified in: New York State Department of Environmental Conservation (NYSDEC) Subpart 375-6: Remedial Program Unrestricted, Restricted-Residential, and Commercial Use (Track 1 and Track 2) Soil Cleanup Objectives (SCOs) and/or Toxicity Characteristic Regulatory Levels for Hazardous Waste published in RCRA and 6 New York Codes, Rules and Regulations (NYCRR) Part 371.

Based on the evaluation of the field screening data and the laboratory analytical results, and a comparison to applicable regulatory standards, the following findings are presented:

### Findings

- No visual or olfactory evidence of contamination was observed and no elevated PID readings were detected at any soil boring location;
- Fill material, consisting of mostly of dark yellowish orange to dusky yellowish brown, coarse to fine sand with clayey silt, with some coarse to fine gravel, was found in all 20 soil boring locations at depths ranging from 0 to 6 ftbg. Seven (7) of the 20 borings (SB03, SB05, SB06, SB08, and SB12 through SB14) had anthropogenic fill material consisting of brick, slag and plastic. Anthropogenic fill was observed in borings SB03, SB08, and SB12 through SB14 from 0.5 to 6 ftbg, in SB05 from 8 to 9 ftbg, and in SB06 from 10 to 11.5 ftbg;
- Groundwater was not encountered at any of the boring locations. Bedrock was not encountered at any of the boring locations;
- One (1) VOC (toluene) was detected above the laboratory's reporting limits in the soil samples collected from SB10 and SB18; however, the concentrations were below the applicable regulatory standards;
- Several PAHs (benzo[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, benzo[g,h,i]perylene, chrysene, fluoranthene, indeno[1,2,3-cd]pyrene, phenanthrene, and pyrene) were detected above the laboratory's reporting limits in 10 soil samples (SB01, SB04, SB06 through SB08, SB13 through SB16, and SB18); however, all concentrations were below the applicable regulatory standards;
- No PCBs were detected above the laboratory's reporting limits in any of the soil samples collected as part of this Phase II SCI;

- Waste characterization laboratory results indicate that TCLP barium was detected in 14 soil samples (SB01, SB02, SB05, SB06, SB08 through SB12, SB14 through SB16, SB18, and SB20). All detected concentrations were below RCRA Hazardous Waste Levels;
- No TPH-GRO or TPH-DRO concentrations were detected above the laboratory's reporting limits in any of the waste characterization soil samples; and,
- The analytical laboratory results of the soil samples show that none of the RCRA parameters (reactivity, ignitability, or corrosivity) were detected or exceeded. Therefore, results of these analyses indicate that the soil samples collected from the Corridor do not exhibit evidence of hazardous waste characteristics.

Based on the results of the field investigation and laboratory analytical results, the following conclusions and recommendations are provided:

### **Conclusions**

- Fill material, consisting of mostly of dark yellowish orange to dusky yellowish brown, coarse to fine sand with clayey silt, with some coarse to fine gravel, was found in all 20 soil boring locations at depths ranging from 0 to 6 ftbg. Seven (7) of the 20 borings (SB03, SB05, SB06, SB08, and SB12 through SB14) had anthropogenic fill material consisting of brick, slag and plastic.
- Groundwater was not encountered at any of the boring locations. Bedrock was not encountered at any of the boring locations;
- One (1) VOC was detected above the laboratory's reporting limits in the soil samples collected from SB10 and SB18; however, the concentrations were below the applicable regulatory standards;
- Laboratory results indicate PAHs were detected above the laboratory's reporting limits in 10 soil samples (SB01, SB04, SB06 through SB08, SB13 through SB16, and SB18); however, all concentrations were below the applicable regulatory standards;
- No PCBs were detected above the laboratory's reporting limits in any of the soil samples;

- Waste characterization laboratory results indicate that TCLP barium was detected in 14 soil samples (SB01, SB02, SB05, SB06, SB08 through SB12, SB14 through SB16, SB18, and SB20) at concentrations below RCRA Hazardous Waste Levels;
- No TPH-GRO or TPH-DRO concentrations were detected above the laboratory's reporting limits in any of the waste characterization soil samples; and,
- Laboratory results indicate that the soil samples collected beneath the Corridor do not exhibit evidence of hazardous waste characteristics.

### **Recommendations**

- The Contract documents should identify provisions for managing, handling, transporting and disposing of contaminated non-hazardous soil. The Contractor should be required to submit a Material Handling Plan to identify the specific protocol and procedures that will be employed to manage the waste in accordance with applicable regulations;
- Dust control procedures are recommended and should be implemented during excavation activities to minimize the creation and dispersion of fugitive airborne dust. The Contractor should implement dust control measures to minimize potential airborne contaminants released into the ambient environment as a direct result of construction activities;
- Groundwater was not encountered during the Phase II SCI activities. However, if dewatering is necessary, the contractor will be required to obtain a New York City Department of Environmental Protection (NYCDEP) sewer discharge permit and perform sampling and laboratory analysis prior to discharge into the storm or combined sewers;
- In addition, should discharge into a surface water body be required during dewatering, it may be performed 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 the water body; and,

- Before beginning any excavation activity, the contractor should submit a site-specific health and safety plan (HASP) that will meet the requirements set forth by the Occupational, Safety and Health Administration (OSHA), the New York State Department of Health (NYSDOH) and any other applicable regulations. The HASP should identify the possible locations and risks associated with the potential contaminants that may be encountered, and the administrative and engineering controls that will be utilized to mitigate concerns.



## 1.0 INTRODUCTION

On behalf of the New York City Department of Design and Construction (DDC), Louis Berger & Assoc., PC. (Louis Berger) conducted a Phase II Subsurface Corridor Investigation (SCI) of the QED1023B Corridor, which consists of the replacement of trunk and distribution water mains in the Cypress Avenue area in Queens and Brooklyn, New York. The 1.2-mile long Corridor is located in the Ridgewood section of the Borough of Queens and the Bushwick section of the Borough of Brooklyn, New York (hereinafter referred to as the “Corridor”). The Corridor location is identified on Figure 1 Topographic Corridor Location Map and is comprised of the following street segments:

Street Segments	Length (miles)
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Louis Berger prepared a Phase I Corridor Assessment Report (CAR) dated February 17, 2017, which identified 27 final “High” risk sites, and 16 final “Moderate” risk sites with respect to potential impact on the Corridor, and recommended the completion of a Phase II SCI.

The Phase II SCI was conducted to determine if the Corridor’s environmental condition may potentially impact proposed construction activities. The proposed depth of excavation for the DDC infrastructure project is estimated to be 12 feet below grade (ftbg). Based on the review of available information provided by the DDC, and discussions with the DDC Project Manager, Louis Berger proposed the advancement of 20 soil borings along the Corridor area to characterize soils and groundwater (if observed) that may be encountered during soil sampling.

### 1.1 Summary of Previous Environmental Investigations

Louis Berger prepared a Phase I Corridor Assessment Report (CAR) for the Corridor dated February 17, 2017. The Phase I CAR presented the results of an investigation to document the current use, a review of Sanborn fire insurance maps to document historical use, and a review of the state and federal government databases to identify sites on or adjoining the Corridor that constitute a potential environmental concern.

Based on Risk Criteria protocol established by the DDC, findings presented in the Phase I CAR defined these sites as posing either “High”, “Moderate”, or “Low” risk for possible contamination to the subsurface environment along the Corridor. Louis Berger identified 294 sites categorized as initially having a “High” risk with respect to potential impact on the project, and no sites as initially having a “Moderate” risk with respect to potential impact on the project, within a 1/8-mile radius of the Corridor. Based on modifying information, Louis Berger recommended that 16 of the initial 294 “High” risk sites be reclassified as “Moderate” risk sites and 251 of the 294 initial “High” risk sites be reclassified as “Low” risk sites. Therefore, the final evaluation identified 27 final “High” risk sites and 16 final “Moderate” risk sites with respect to potential impact on the project Corridor. The final “High” risk sites are listed below:

**“High” Risk Sites:**

No.	Facility Name	Address	Map ID
1	Former Manufacturing and Commercial Facilities	1943 Troutman Street	H#1
2	Force Collision & Towing Inc.	1952-1956 Flushing Avenue	H#2
3	Top Choice Trading USA, Inc.	1940 Flushing Avenue	H#3
4	Costco Enterprises c/o Textile Solutions; Con Edison; 1948 Troutman Street, LLC; Troutman Street Association; 146-48 Troutman Street	1930-1950 Troutman Street	H#4
5	AALBA Auto Salvage Inc.; AALBA Auto Wrecking Inc.	151 Woodward Avenue	H#5
6	Sacco Auto Sales & Parts Corp.	175 Woodward Avenue	H#6
7	Former Public School, Bakery and Auto Wrecking	176 Woodward Avenue	H#7
8	Former Auto Wrecking, Auto Repair, and Junk Yard	1920 Troutman Street	H#8
9	Metro Line Car and Limousine Service	1860 Troutman Street	H#9
10	National Compressor Exchange; Spill Number 0212394	1856 Troutman Street	H#10
11	RT Workrooms (Manufacturing)	157 Onderdonk Avenue	H#11
12	Boerum Hill Joinery; 1831 Starr Street Realty, LLC	1831 Starr Street	H#12

**“High” Risk Sites Continued:**

No.	Facility Name	Address	Map ID
13	Former Warehouse	1804 Troutman Street	H#13
14	NYC DEP; Super World Trading Inc.; NULUX Inc.; Alba Woodworking Inc.; Gladiator Realty Corp.; Kent Paper Co.	1717 Troutman Street	H#14
15	Former Manufacturing Facility and Warehouse	460 - 470 Troutman Street	H#15
16	GCM Iron Works Inc	454 Troutman Street	H#16
17	Apollo Windows & Doors, Inc.; Service Party Rental Co Inc.	333 Starr Street	H#17
18	Cypress Laundromat	215 Cypress Avenue	H#18
19	St. Nicholas Medical PC (Leaking AST and Impact to Drain)	115 Saint Nicholas Avenue	H#19
20	Former Jane Laundromat Corp	1730 Harman Street	H#20
21	Grand Auto Repair Service Inc; Con Edison	475 Seneca Avenue	H#21
22	Former Westley's Auto Repair	1719 Stanhope Street	H#22
23	Former Kew Laundromat Inc.	1921 Himrod Street	H#23
24	Former Knitting Mill and Manufacturing	415 Fairview Avenue	H#24
25	Former Fairview French Cleaners	451 Fairview Avenue	H#25
26	Former Vanessa's Laundry Inc	452 Onderdonk Avenue	H#26
27	Former Clothing Manufacturer	451 Woodward Avenue	H#27

**“Moderate” Risk Sites:**

No.	Facility Name	Address	Map ID
1	Grover Cleveland High School (Active ASTs, hazardous waste generator)	2127 Himrod Street	M#1
2	Onderdonk House (former manufacturing)	1820-1836 Flushing Avenue	M#2
3	Brownstein Realty Corp. (Historical oil tank)	467 Troutman Street	M#3

**“Moderate” Risk Sites Continued:**

No.	Facility Name	Address	Map ID
4	449/465 Troutman Street (Historical gasoline tanks)	449-465 Troutman Street	M#4
5	Construction Supplies Yard	36-44 Cypress Avenue	M#5
6	GCM Steel Products, INC.; Dumpster in front of location	445 Troutman Street	M#6
7	476 Industries; Northern Laminating - 476 Jefferson St; Vacant Factory - 4th Floor - Safety Lead Services Corporation	476 Jefferson Street	M#7
8	RAM Associates Realty, LLC (Active AST)	1409 Willoughby Avenue	M#8
9	420 Stockholm Street Apartments (Active AST)	420 Stockholm Street	M#9
10	Former Knitting Mill	415 Onderdonk, Avenue	M#10
11	Former Manufacturing	188 Cypress Avenue	M#11
12	Former Manufacturing	192 Cypress Avenue	M#12
13	Former Knitting Mill	451 Seneca Avenue	M#13
14	Distribution Facility	418 Seneca Avenue	M#14
15	Former Knitting Mill	416 Woodward Avenue	M#15
16	Former Knitting Mill	451 Grandview Avenue	M#16

**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 Corridor features and, if applicable, contamination occurrence and distribution. Drilling and hand-clearing activities were performed by Aquifer Drilling and Testing Incorporated (ADT). Soil boring oversight and sample collection were conducted by Mr. Martin Donovan, Environmental Technician of Louis Berger. Laboratory analyses were provided by Hampton-Clarke/Veritech (HC-V) of Fairfield, New Jersey, which is a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP)-certified analytical laboratory (No. 11408). Field-derived Quality Assurance/Quality Control (QA/QC) samples (i.e., blind duplicates, equipment/rinsate blanks, and trip blanks) were not collected for this project.

The field investigation was conducted on April 24 through 28, 2017, and consisted of the following components:

- The advancement of 20 soil borings (SB01 through SB20), utilizing hand tools and a Geoprobe® drill rig with direct push technology. Each soil boring was advanced to terminal depths ranging between 2 and 15 ftbg;
- Field screening, classification and identification of soils from surface grade to the terminal depth of each boring. Soil samples were visually classified in the field using the Burmeister Classification, Unified Soil Classification System (USCS), and Munsell Rock Color charts. Field screening of soils consisted of visual and olfactory indicators of impacts, as well as screening with a photoionization detector (PID);
- The collection of one (1) grab soil sample from each boring. The grab soil samples were collected from either the 6-inch interval above the water table (when encountered), 6-inch interval above the bottom of the boring (where recovery allowed), or from the 6-inch interval showing the highest potential for contamination based on field observation. The soil samples were analyzed for Target Compound List (TCL) Volatile Organic Compounds (VOCs) using US Environmental Protection Agency (USEPA) Method 8260C;
- The collection of one (1) composite waste characterization soil sample from each boring. The waste characterization sample was a composite from ground surface to end of boring (where recovery allowed). The waste characterization sample was analyzed for Polycyclic Aromatic Hydrocarbons (PAHs) by USEPA Method 8270C, Total Petroleum Hydrocarbons (TPH-DRO/GRO) by USEPA 8015B, Polychlorinated Biphenyls (PCBs) by USEPA Method 8082A/608, Toxicity Characteristic Leaching Procedure (TCLP) Metals (Resource Conservation and Recovery Act [RCRA] 8) by USEPA Method 1311/6010B, and RCRA Characteristics, including ignitability, reactivity and corrosivity, by USEPA Methods 9012B/9034, 1030/1010A, and 9045C, respectively, as well as Paint Filter Test by USEPA Method 9095B, for waste classification purposes; and,
- The preparation of this report, which includes tables summarizing the laboratory analytical results, and figures depicting boring locations, significant Corridor features and, if applicable, contamination occurrence and distribution.

## **2.0 CORRIDOR INFORMATION**

### **2.1 Corridor Location, Description and Use**

The approximately 1.2-mile long Corridor is located in the Ridgewood and Bushwick sections of Queens and Brooklyn, New York, respectively, where Cypress Avenue is the geographic limit between Queens to the northeast, and Brooklyn to the southwest. Currently, the Corridor is developed with paved roadway and existing infrastructure systems, and exhibits evidence of utilities, such as manholes, pavement scars, utility mark-outs, and valve covers throughout the roadways and sidewalk areas. This indicates the presence of buried utilities, including gas, sewer, water, and communication. Additionally, overhead electrical lines are present along the Corridor.

There are many industrial buildings along Troutman Street that formerly or currently serve as manufacturing and warehousing facilities, including a former manufacturing and commercial facility at 1943 Troutman Street, Costco Enterprises c/o Textile Solutions at 1930-1950 Troutman Street, National Compressor Exchange at 1856 Troutman Street, a former warehouse at 1804 Troutman Street, a former manufacturing facility and warehouse at 460-470 Troutman Street, GCM Iron Works Inc. at 454 Troutman Street, and Super World Trading Inc., Nulux Inc., Alba Woodworking Inc. and Kent Paper Co., which are all located in the building occupying 1717 Troutman Street. There are also two (2) auto/former auto facilities, including a former junk yard at 1920 Troutman Street and Metro Line Car and Limousine Service at 1860 Troutman Street.

Cypress Avenue is mostly residential mixed with light commercial uses such as Cypress Laundromat at 215 Cypress Avenue and several small delis and restaurants; however, there is a construction supply yard at 36-44 Cypress Avenue and two (2) former manufacturing facilities at 188 and 192 Cypress Avenue.

Currently, the properties along and surrounding Himrod Street are mostly residential with some commercial operations such as Grand Auto Repair Service Inc. at 475 Seneca Avenue; a beverage distribution facility at 418 Seneca Avenue; M&D Laundromat (formerly Vanessa's Laundry Inc.) at 452 Onderdonk Avenue; and Soccer Super Store (formerly Fairview French Cleaners) located at 451 Fairview Avenue. Historic operations include former knitting mills located at 451 Seneca Avenue, 415 Onderdonk Avenue, 451 Grandview Avenue, 416 Woodward Avenue and 415 Fairview Avenue, as well as a former clothing manufacturer located at 451 Woodward Avenue. An area map of the Corridor is presented as Figure 2.

## 2.2 Description of Surrounding Properties

The surrounding properties are mostly residential with the exception of some commercial properties in the vicinity of the southeastern portion of the Corridor, and commercial and industrial usage near the northwestern portion of the Corridor. Metropolitan Avenue, north of the Corridor, is a highly commercialized thoroughfare with banks, restaurants, and laundromats.

The Linden Hill Methodist Cemetery is located between the Himrod Street and Troutman Street segments of the Corridor, and bounded by Starr Street, Woodward Avenue, Grandview Avenue, and Stanhope Street. Also within the Himrod Street and Troutman Street segments is the Grover Cleveland Athletic Field, with an entrance on Suydam Street. Along streets that run northeast-southwest within the Himrod and Troutman segments are mostly residential buildings with some former commercial buildings, such as former Westley's Auto Repair located at 1719 Stanhope Street. Along streets that run northwest-southeast in the areas around the Corridor, building use is mostly first-floor commercial with residential above.

The properties outside of the Himrod and Troutman Street segments have similar property usages. To the southwest of Cypress Avenue are residential and mixed commercial/residential buildings, including the St. Nicholas Medical PC located at 115 Saint Nicholas Avenue. To the southeast of Himrod Street are additional residential and mixed-use buildings, such as Grand Auto Repair Services Inc. located at 475 Seneca Avenue, and the former Jane Laundromat Corp. located at 1730 Harmon Street.

## 2.3 Corridor and Regional Topographic Setting

The United States Geologic Survey (USGS) 7.5-minute Topographic Quadrangle Map for Brooklyn, NY (1995) and the USGS National Map (<http://viewer.nationalmap.gov/viewer/>) were reviewed to determine topography at the Corridor. The Corridor exhibits a topographic elevation change of 74 feet. The elevation of the Corridor varies from 113 feet above mean sea level (msl) at the northeastern extent of the Corridor to 39 feet above msl at its southwestern extent. The Corridor is situated such that the northern portion of the Corridor generally slopes to the northwest and the southern portion slopes to the southwest. Under natural conditions, surface runoff would be expected to follow the overall topography of the area, which slopes generally towards the west of the Corridor and ultimately towards Newtown Creek located 0.41 mile west, a Superfund site. However, storm runoff within the Corridor is managed by storm drains.

## 2.4 Corridor and Regional Geology

The *NYC Reconnaissance Soil Survey* (2005) indicates the Corridor is underlain by the Pavement & buildings, Foresthills-Canarsie complex and Pavement & buildings, till substratum. The northern and southern portions of the Corridor are underlain by the Pavement & buildings, Foresthills-Canarsie complex which is classified as strongly sloping, urbanized areas of till plains that have been cut and filled with natural soil materials and fill material. Approximately 50 to 80 percent of the surface is covered by impervious pavement and buildings. The southeastern and eastern portions of the Corridor are underlain by the Pavement & buildings, till substratum which is classified as nearly level to gently sloping, urbanized areas with more than 80 percent of the surface is covered by impervious pavement and buildings underlain by glacial till.

The *Ground-Water Resources of Kings and Queens Counties, Long Island, New York* (Buxton, 1999) and the *Quaternary Geologic Map of the Hudson River 4° x 6° Quadrangle, United States and Canada* (1992) indicate the surficial soils are underlain by Upper Pleistocene Harbor Hill moraine deposits consisting of outwash sand, gravel and silt to a depth of approximately 75 ftbg. The Upper Pleistocene deposits are, in turn, underlain by approximately 100 feet of the Gardiners Clay (75 to 175 ftbg), which consists of greenish gray clay and silt and some interbedded sand. The Gardiners Clay deposits are, in turn, underlain by approximately 75 feet of the Raritan Formation (175 to 250 ftbg), which consists of clay beds with inclusions of silty clay and clayey silts. These deposits are, in turn, underlain by crystalline metamorphic bedrock, expected to be encountered at approximately 250 ftbg.

During the advancement of soil borings for this Phase II investigation, anthropogenic fill was observed in borings SB03, SB08, and SB12 through SB14 from 0.5 to 6 ftbg, in SB05 from 8 to 9 ftbg, and in SB06 from 10 to 11.5 ftbg. Where anthropogenic fill was not noted, a combination of sand, silt, clay, and gravel, ranging in color from dark yellowish orange to dusky yellowish brown was observed.

## 2.5 Corridor and Regional Hydrogeology

Based on the location of Newtown Creek, under natural conditions, groundwater flow direction would be expected to be to the northwest towards Newtown Creek and ultimately into the East River. All references to groundwater flow direction/hydraulic gradient in this report are based upon this assumption. According to the *Water-Table and Potentiometric-Surface Altitudes in the Upper Glacial, Magothy, and Lloyd Aquifers beneath Long Island, New York, March – April 2006*, groundwater altitude is estimated to be approximately 15 ft above msl. Based on Corridor elevations ranging from 39 to 113 ft above msl and the approximate elevation of groundwater at



15 feet msl, groundwater is expected to be encountered at depths ranging from approximately 24 ftbg at the southwestern extent of the Corridor to 98 ftbg at the northeastern extent of the Corridor. Groundwater can also be influenced by seasonal fluctuations in precipitation, local variations in geology, underground anthropogenic structures, and/or local dewatering operations. Groundwater was not encountered in any borings during this Phase II SCI.

According to the U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory, no wetlands are located along the Corridor; however, Newtown Creek is located approximately 0.41 miles west of the northwestern extent of the Corridor, an Estuarine and Marine Deepwater wetland (classification code of E1UBL). This wetland consists of deep-water tidal salt water habitats with an unconsolidated bottom.

According to the environmental database report (Appendix C of the Phase I CAR) and Federal Emergency Management Agency (FEMA) Floor Insurance Rate Map (FIRM) Panel 3604970208F (FEMA, 2007) the Corridor is not located within the 100-year or 500-year flood zone.

### 3.0 CORRIDOR EVALUATION

Proposed construction activities within the Corridor include soil excavation, which requires that soils be characterized to identify material handling requirements (i.e., use of protective equipment) and waste disposal requirements. Louis Berger advanced 20 soil borings during the field investigation conducted on May 26 through June 6, 2017. The field investigation was performed at designated areas in the vicinity of the planned excavation area. All drilling and hand-clearing activities were performed by ADT under the oversight of Louis Berger. A summary of the field observations and details of the soil borings are provided in Table 1.

#### 3.1 Soil Quality Investigation

All soil borings were advanced utilizing both evasive methods (i.e., a hand auger and/or hand tools) and a Geoprobe® direct push drill rig to terminal depths ranging from 6.5 to 15 ftbg, except for soil boring SB04, which was advanced utilizing evasive methods only to a depth of 2 ftbg. Refusal was encountered in two (2) of the 20 soil boring locations at depths of 2 and 6.5 ftbg in soil borings SB04 and SB16, respectively. Refusals were likely due to large boulders, which were observed during clearing activities. To ensure the clearance of sensitive subsurface utilities and features, the soil boring locations were pre-cleared to a depth of 6 ftbg via evasive methods (i.e., a hand auger), except where refusal was encountered at less than 6 ftbg. Soil boring locations are depicted 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 location of each boring is described below:

- **SB01** – Located in the sidewalk along the northwestern curb line of Troutman Street, 42 feet and 3 inches northwest of the southeastern curb line of Troutman Street, and 19 feet and 7 inches south of the curb line at the intersection of Troutman Street and Flushing Avenue.
- **SB02** – Located in the sidewalk along the northwestern curb line of Troutman Street, 40 feet and 3 inches northwest of the southeastern curb line of Troutman Street, and 202 feet and 3 inches northeast of the northeastern curb line of Woodward Avenue.
- **SB03** – Located in the sidewalk along the southeastern curb line of Troutman Street, 40 feet and 7 inches southeast of the northwestern curb line of Troutman Street, and 128 feet and 5 inches southwest of the southwestern curb line of Woodward Avenue.

- **SB04** – Located in a tree pit along the southeastern curb line of Troutman Street, 34 feet and 2 inches southeast of the northwestern curb line of Troutman Street, and 127 feet and 2 inches southwest of the southwestern curb line of Onderdonk Avenue.
- **SB05** – Located in a tree pit along the southeastern curb line of Troutman Street, 35 feet southeast of the northwestern curb line of Troutman Street, and 74 feet and 3 inches northeast of the northeastern curb line of Seneca Avenue.
- **SB06** – Located in the sidewalk along the northwestern curb line of Troutman Street, 32 feet and 10 inches northwest of the southeastern curb line of Troutman Street, and 197 feet and 7 inches northeast of the northeastern curb line of Cypress Avenue.
- **SB07** – Located in a tree pit along the northwestern curb line of Troutman Street, 32 feet and 3 inches northwest of the southeastern curb line of Troutman Street, and 173 feet and 5 inches southwest of the southwestern curb line of Cypress Avenue.
- **SB08** – Located in a tree pit along the southeastern curb line of Willoughby Avenue, 31 feet and 7 inches southeast of the northwestern curb line of Willoughby Avenue, and 19 feet southwest of the southwestern curb line of Cypress Avenue.
- **SB09** – Located in a tree pit along the northeastern curb line of Cypress Avenue, 35 feet and 8 inches northeast of the southwestern curb line of Cypress Avenue, and 64 feet and 2 inches northwest of the northwestern curb line of Hart Street.
- **SB10** – Located in a tree pit along the northeastern curb line of Cypress Avenue, 37 feet and 11 inches northeast of the southwestern curb line of Cypress Avenue, and 64 feet and 2 inches northwest of the northwestern curb line of Dekalb Avenue.
- **SB11** – Located in a tree pit along the southwestern curb line of Cypress Avenue, 37 feet and 9 inches southwest of the northeastern curb line of Cypress Avenue, and 45 feet and 3 inches northwest of the northwestern curb line of Stockholm Street.
- **SB12** – Located in a tree pit along the southwestern curb line of Cypress Avenue, 37 feet and 4 inches southwest of the northeastern curb line of Cypress Avenue, and 88 feet and 10 inches northwest of the northwestern curb line of Stanhope Street.

- **SB13** – Located in a tree pit along the southwestern curb line of Cypress Avenue, 38 feet and 9 inches southwest of the northeastern curb line of Cypress Avenue, and 28 feet and 2 inches southeast of the southeastern curb line of Stanhope Street.
- **SB14** – Located in a tree pit along the southeastern curb line of Himrod Street, 34 feet and 6 inches southeast of the northwestern curb line of Himrod Street, and 86 feet and 7 inches southwest of the southwestern curb line of Seneca Avenue.
- **SB15** – Located in a tree pit along the northwestern curb line of Himrod Street, 33 feet and 4 inches northwest of the southeastern curb line of Himrod Street, and 115 feet and 6 inches northeast of the northeastern curb line of Seneca Avenue.
- **SB16** – Located in a tree pit along the northwestern curb line of Himrod Street, 30 feet and 10 inches northwest of the southeastern curb line of Himrod Street, and 139 feet and 10 inches southwest of the southwestern curb line of Woodward Avenue.
- **SB17** – Located in a tree pit along the northwestern curb line of Himrod Street, 32 feet and 2 inches northwest of the southeastern curb line of Himrod Street, and 30 feet and 10 inches northeast of the northeastern curb line of Woodward Avenue.
- **SB18** – Located in a tree pit along the northwestern curb line of Himrod Street, 35 feet and 2 inches northwest of the southeastern curb line of Himrod Street, and 76 feet and 2 inches southwest of the southwestern curb line of Fairview Avenue.
- **SB19** – Located in a tree pit along the northwestern curb line of Himrod Street, 33 feet and 11 inches northwest of the southeastern curb line of Himrod Street, and 239 feet and 7 inches northeast of the northeastern curb line of Fairview Avenue.
- **SB20** – Located in the sidewalk along the southeastern curb line of Himrod Street, 43 feet and 2 inches southeast of the northwestern curb line of Himrod Street, and 75 feet and 6 inches southwest of the southwestern curb line of Grandview Avenue.

Soil from each boring was classified and examined for visual evidence (i.e., staining, discoloration) and any olfactory indications (i.e., odors) of contamination. In addition, a PID was used to screen the soil for VOC vapors.

In order to identify representative conditions relative to the presence of PAHs, TCLP metals, PCBs, total petroleum hydrocarbons, RCRA characteristics, and conditions relative to waste

disposal in each boring, composite soil samples were collected at each boring location. Based on the DDC protocol regarding soil sample collection for waste classification analysis, composite soil samples for SB01 through SB20 were collected from the ground surface to the terminal depth of the boring. Composite soil samples were collected by mixing the soil from the column in a decontaminated stainless steel bowl.

In order to identify representative conditions relative to the presence of VOCs, grab samples were collected from either the 6-inch interval above the water table (when encountered), the 6-inch interval above the bottom of the boring (where recovery allowed), or from the 6-inch interval showing the highest potential for contamination based on field observation.

Soil classification information, including stratigraphy, is documented on the boring logs provided in Appendix B. All boring equipment was cleaned by rinsing with deionized water, scrubbed with Alconox®, and then rinsed with deionized water a second time between each sample location to prevent any cross-contamination. Following the completion of each boring, the boreholes were backfilled with removed material and then sealed with ready mixed concrete or cold patch asphalt, where appropriate.

### 3.2 Laboratory Analyses

Soil samples were submitted to HC-V of Fairfield, New Jersey which is a NYSDOH ELAP-certified analytical laboratory (No. 11408). Field-derived Quality Assurance/Quality Control samples were not collected for this project. Laboratory analytical reports are included in Appendix C.

The grab soil samples SB01 through SB20 were analyzed for TCL VOCs using USEPA Method 8260C. The composite soil samples SB01 through SB20 were analyzed for PAHs by USEPA Method 8270C, TPH-DRO/GRO by USEPA 8015B, PCBs by USEPA Method 8082A/608, TCLP Metals (RCRA 8) by USEPA Method 1311/6010B, and RCRA Characteristics, including ignitability, reactivity and corrosivity, by USEPA Methods 9012B/9034, 1030/1010A, and 9045C, respectively, as well as Paint Filter Test by USEPA Method 9095B, for waste classification purposes.

### **3.3 Data Evaluation**

In order to evaluate subsurface soil quality for waste characterization purposes, laboratory analytical results of grab and composite soil samples were compared with regulatory standards identified in: New York State Department of Environmental Conservation (NYSDEC) Subpart 375-6: Remedial Program Unrestricted, Restricted-Residential, and Commercial Use (Track 1 and Track 2) Soil Cleanup Objectives (SCOs) and/or Toxicity Characteristic Regulatory Levels for Hazardous Waste published in RCRA and 6 New York Codes, Rules and Regulations (NYCRR) Part 371.

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## 4.0 FINDINGS

This section discusses the analytical data and findings for activities discussed in Section 3.0. Boring logs can be found in Appendix B. A complete analytical data report is included in Appendix C.

### 4.1 Field Screening

Field screening consisted of identifying visual and olfactory indicators of potential impact, as well as screening soil for VOC vapors with a PID. No visual and olfactory indications of contamination were encountered in any of the 20 borings. A summary of the environmental boring data is presented in Table 1.

### 4.2 Laboratory Analytical Results

#### 4.2.1 Target Compound List (TCL) Volatile Organic Compounds (VOCs) in Soil

One (1) VOC, toluene, was detected above the laboratory's reporting limits in the soil samples collected from SB10 and SB18 (0.0016 parts per million [ppm] and 0.028 ppm, respectively); however, the detected concentrations were below the applicable regulatory standards. A summary of the VOC results is provided as Table 2.

#### 4.2.2 Polycyclic Aromatic Hydrocarbons (PAHs) in Soil

Several PAHs, including benzo[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, benzo[g,h,i]perylene, chrysene, fluoranthene, indeno[1,2,3-cd]pyrene, phenanthrene, and pyrene, were detected above the laboratory's reporting limits in 10 soil samples (SB01, SB04, SB06 through SB08, SB13 through SB16, and SB18); however, all detected concentrations were below the applicable regulatory standards. A summary of the PAH results is provided as Table 3.

#### 4.2.3 Polychlorinated Biphenyls (PCBs) in Soil

No PCBs were detected above the laboratory's reporting limits in any of the soil samples collected as part of this Phase II SCI. A summary of the PCB results is provided as Table 4.

#### 4.2.4 *Waste Classification of Soil*

##### TCLP Metals

Waste characterization laboratory results indicate that TCLP barium was detected in 14 soil samples (SB01, SB02, SB05, SB06, SB08 through SB12, SB14 through SB16, SB18, and SB20), but below the applicable regulatory standards. Results of the TCLP metals analysis indicate that soil samples collected from the Corridor do not exhibit evidence of the Hazardous Waste characteristics for Toxicity. A summary of the waste characterization parameters is provided as Table 5.

##### Total Petroleum Hydrocarbons (TPH)

TPH-GRO and TPH-DRO concentrations were not detected in any of the soil samples. No regulatory standards exist for TPH. A summary of the waste characterization parameters is provided as Table 5.

##### RCRA Parameters (Reactivity, Corrosivity, Ignitability)

The analytical laboratory results of the soil samples show that none of the RCRA parameters (reactivity, ignitability, or corrosivity) were detected or exceeded. The pH of the samples was found to be within the RCRA limits of 2 and 12.5. The flash point was greater than 140 degrees Fahrenheit in the soil beneath the Corridor; therefore, the RCRA characteristics for ignitability were negative. Reactive cyanide and reactive sulfide were not detected in any of the soil samples.

Therefore, results of these analyses indicate that the soil samples collected from the Corridor do not exhibit evidence of hazardous waste characteristics. A summary of the waste characterization parameters is provided as Table 5.



## 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 findings, conclusions, and recommendations are presented:

### Findings

- No evidence of visual or olfactory contamination was indicated and no elevated PID readings were detected at any soil boring location;
- Fill material, consisting of mostly of dark yellowish orange to dusky yellowish brown, coarse to fine sand with clayey silt, with some coarse to fine gravel, was found in all 20 soil boring locations at depths ranging from 0 to 6 ftbg. Seven (7) of the 20 borings (SB03, SB05, SB06, SB08, and SB12 through SB14) had anthropogenic fill material consisting of brick, slag and plastic. Anthropogenic fill was observed in borings SB03, SB08, and SB12 through SB14 from 0.5 to 6 ftbg, in SB05 from 8 to 9 ftbg, and in SB06 from 10 to 11.5 ftbg;
- Groundwater was not encountered at any of the boring locations. Bedrock was not encountered at any of the boring locations;
- One (1) VOC (toluene) was detected above the laboratory's reporting limits in the soil samples collected from SB10 and SB18; however, the concentrations were below the applicable regulatory standards;
- Several PAHs (benzo[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, benzo[g,h,i]-perylene, chrysene, fluoranthene, indeno[1,2,3-cd]pyrene, phenanthrene, and pyrene) were detected above the laboratory's reporting limits in 10 soil samples (SB01, SB04, SB06 through SB08, SB13 through SB16, and SB18); however, all concentrations were below the applicable regulatory standards;
- No PCBs were detected above the laboratory's reporting limits in any of the soil samples collected as part of this Phase II SCI;
- Waste characterization laboratory results indicate that TCLP barium was detected in 14 soil samples (SB01, SB02, SB05, SB06, SB08 through SB12, SB14 through SB16, SB18, and SB20). All detected concentrations were below RCRA Hazardous Waste Levels;

- No TPH-GRO or TPH-DRO concentrations were detected above the laboratory's reporting limits in any of the waste characterization soil samples; and,
- The analytical laboratory results of the soil samples show that none of the RCRA parameters (reactivity, ignitability, or corrosivity) were detected or exceeded. Therefore, results of these analyses indicate that the soil samples collected from the Corridor do not exhibit evidence of hazardous waste characteristics.

### Conclusions

- Fill material, consisting of mostly of dark yellowish orange to dusky yellowish brown, coarse to fine sand with clayey silt, with some coarse to fine gravel, was found in all 20 soil boring locations at depths ranging from 0 to 6 ftbg. Seven (7) of the 20 borings (SB03, SB05, SB06, SB08, and SB12 through SB14) had anthropogenic fill material consisting of brick, slag and plastic.
- Groundwater was not encountered at any of the boring locations. Bedrock was not encountered at any of the boring locations;
- One (1) VOC was detected above the laboratory's reporting limits in the soil samples collected from SB10 and SB18; however, the concentrations were below the applicable regulatory standards;
- Laboratory results indicate PAHs were detected above the laboratory's reporting limits in 10 soil samples (SB01, SB04, SB06 through SB08, SB13 through SB16, and SB18); however, all concentrations were below the applicable regulatory standards;
- No PCBs were detected above the laboratory's reporting limits in any of the soil samples;
- Waste characterization laboratory results indicate that TCLP barium was detected in 14 soil samples (SB01, SB02, SB05, SB06, SB08 through SB12, SB14 through SB16, SB18, and SB20) at concentrations below RCRA Hazardous Waste Levels;
- No TPH-GRO or TPH-DRO concentrations were detected above the laboratory's reporting limits in any of the waste characterization soil samples; and,
- Laboratory results indicate that the soil samples collected beneath the Corridor do not exhibit evidence of hazardous waste characteristics.

## Recommendations


- The Contract documents should identify provisions for managing, handling, transporting and disposing of contaminated non-hazardous soil. The Contractor should be required to submit a Material Handling Plan to identify the specific protocol and procedures that will be employed to manage the waste in accordance with applicable regulations;
- Dust control procedures are recommended and should be implemented during excavation activities to minimize the creation and dispersion of fugitive airborne dust. The Contractor should implement dust control measures to minimize potential airborne contaminants (i.e., PAHs) released into the ambient environment as a direct result of construction activities;
- Groundwater was not encountered during the Phase II SCI activities. However, if dewatering is necessary, the contractor will be required to obtain a New York City Department of Environmental Protection (NYCDEP) sewer discharge permit and perform sampling and laboratory analysis prior to discharge into the storm or combined sewers;
- In addition, should discharge into a surface water body be required during dewatering, it may be performed 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 the surface water body; and,
- Before beginning any excavation activity, the contractor should 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.

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## 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:



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Fameeda Ali, CHMM, ENV SP  
Project Manager

Report Reviewed By:



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Michael J. McCloskey, PG  
Principal Associate

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## 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.

Louis Berger 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, Louis Berger 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, Louis Berger 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 Louis Berger 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 PAHs DETECTED IN SOIL**  
**TABLE 4 – SUMMARY OF PCBs DETECTED IN SOIL**  
**TABLE 5 – SUMMARY OF WASTE CLASSIFICATION RESULTS IN SOIL**

Table 1. Summary of Environmental Boring Data  
Phase II Subsurface Corridor Investigation for Replacement of Trunk and Distribution Water Main in Cypress Avenue  
Queens and Brooklyn, New York

Boring No.	Sample ID	High PID (ppm)	Sample Interval (ftbg)	Total VOCs (mg/kg)	Total PAHs (mg/kg)	TCLP Metals Exceed (Yes/No) <sup>1</sup>	Depth to Water (ftbg)	Total Depth (ftbg)	Other Comments
SB01	SB01	<1	13.5 - 14.0	ND	-	NO	NE	15.0	No visual or olfactory signs of contamination observed. Fill material was observed.
SB02	SB02	<1	0.5 - 14.0	-	0.535	NO	NE	15.0	No visual or olfactory signs of contamination observed. Fill material was observed.
SB03	SB03	<1	13.0 - 13.5	ND	-	NO	NE	15.0	No visual or olfactory signs of contamination observed. Fill material was observed.
SB04	SB04	<1	13.0 - 13.5	ND	-	NO	NE	15.0	No visual or olfactory signs of contamination observed. Fill material was observed.
SB05	SB05	<1	0.5 - 13.5	-	ND	NO	NE	2.0	No visual or olfactory signs of contamination observed. Fill material was observed.
SB06	SB06	<1	1.5 - 2.0	-	0.274	NO	NE	15.0	No visual or olfactory signs of contamination observed. Fill material was observed.
SB07	SB07	<1	14.0 - 14.5	ND	-	NO	NE	15.0	No visual or olfactory signs of contamination observed. Fill material was observed.
SB08	SB08	<1	0.5 - 14.5	-	ND	NO	NE	15.0	No visual or olfactory signs of contamination observed. Fill material was observed.
SB09	SB09	<1	13.0 - 13.5	ND	-	NO	NE	15.0	No visual or olfactory signs of contamination observed. Fill material was observed.
SB10	SB10	<1	13.5 - 14.0	ND	-	NO	NE	15.0	No visual or olfactory signs of contamination observed. Fill material was observed.
SB11	SB11	<1	12.0 - 12.5	ND	0.420	NO	NE	15.0	No visual or olfactory signs of contamination observed. Fill material was observed.
SB12	SB12	<1	0.5 - 12.5	-	0.190	NO	NE	15.0	No visual or olfactory signs of contamination observed. Fill material was observed.
SB13	SB13	<1	12.0 - 12.5	ND	-	NO	NE	15.0	No visual or olfactory signs of contamination observed. Fill material was observed.
SB14	SB14	<1	0.5 - 12.5	-	ND	NO	NE	15.0	No visual or olfactory signs of contamination observed. Fill material was observed.
		<1	12.0 - 12.5	0.0016	-	NO	NE	15.0	No visual or olfactory signs of contamination observed. Fill material was observed.
		<1	11.0 - 11.5	ND	-	NO	NE	15.0	No visual or olfactory signs of contamination observed. Fill material was observed.
		<1	0.5 - 11.5	-	ND	NO	NE	15.0	No visual or olfactory signs of contamination observed. Fill material was observed.
		<1	11.5 - 12.0	ND	-	NO	NE	15.0	No visual or olfactory signs of contamination observed. Fill material was observed.
		<1	0.5 - 12.0	-	ND	NO	NE	15.0	No visual or olfactory signs of contamination observed. Fill material was observed.
		<1	14.0 - 14.5	ND	-	NO	NE	15.0	No visual or olfactory signs of contamination observed. Fill material was observed.
		<1	0.5 - 14.5	-	0.079	NO	NE	15.0	No visual or olfactory signs of contamination observed. Fill material was observed.
		<1	13.5 - 14.0	ND	-	NO	NE	15.0	No visual or olfactory signs of contamination observed. Fill material was observed.
		<1	0.5 - 14.0	-	0.292	NO	NE	15.0	No visual or olfactory signs of contamination observed. Fill material was observed.

Notes:  
<sup>1</sup> - TCLP metal(s) exceeds Resource Conservation and Recovery Act (RCRA) Hazardous Waste Levels.  
 All soil samples were analyzed for Target Compound List (TCL) Volatile Organic Compounds (VOCs), Polycyclic Aromatic Hydrocarbons (PAHs), Polychlorinated Biphenyls (PCBs), Toxicity Characteristic Leaching Procedure (TCLP) for Metals (RCRA 8), Total Petroleum Hydrocarbons, and RCRA Characteristics.  
 PID = Photoionization detector  
 ND = Not Detected  
 NE = Not Encountered  
 ftbg = feet below ground surface

DDC Project Number: QED1023B

Work Order Letter No. 12715-LBA-4-11632

**Table 1. Summary of Environmental Boring Data (Continued)**  
**Phase II Subsurface Corridor Investigation for Replacement of Trunk and Distribution Water Main in Cypress Avenue**  
**Queens and Brooklyn, New York**

Boring No.	Sample ID	High PID (ppm)	Sample Interval (ftbg)	Total VOCs (mg/kg)	Total PAHs (mg/kg)	TCLP Metals Exceed (Yes/No) <sup>1</sup>	Depth to Water (ftbg)	Total Depth (ftbg)	Other Comments
SB15	SB15	<1	12.5 - 13.0 0.5 - 13.0	ND -	- 0.038	NO	NE	15.0	No visual or olfactory signs of contamination observed. Fill material was observed.
SB16	SB16	<1	6.0 - 6.5 0.5 - 6.5	ND -	- 0.751	NO	NE	6.5	No visual or olfactory signs of contamination observed. Fill material was observed.
SB17	SB17	<1	13.5 - 14.0 0.5 - 14.0	ND -	- ND	NO	NE	15.0	No visual or olfactory signs of contamination observed. Fill material was observed.
SB18	SB18	<1	12.5 - 13.0 0.5 - 13.0	0.028 -	- 0.045	NO	NE	15.0	No visual or olfactory signs of contamination observed. Fill material was observed.
SB19	SB19	<1	13.5 - 14.0 0.5 - 14.0	ND -	- ND	NO	NE	15.0	No visual or olfactory signs of contamination observed. Fill material was observed.
SB20	SB20	<1	13.5 - 14.0 0.5 - 14.0	ND -	- ND	NO	NE	15.0	No visual or olfactory signs of contamination observed. Fill material was observed.

**Notes:**

- 1 - TCLP metal(s) exceeds Resource Conservation and Recovery Act (RCRA) Hazardous Waste Levels.
- All soil samples were analyzed for Target Compound List (TCL) Volatile Organic Compounds, Polycyclic Aromatic Hydrocarbons (PAHs), Polychlorinated Biphenyls (PCBs), Toxicity Characteristic Leaching Procedure (TCLP) for Metals (RCRA 8).
- Total Petroleum Hydrocarbons, and RCRA Characteristics.
- PID = Photoionization detector
- ND = Not Detected
- NE = Not Encountered
- ftbg = feet below ground surface

DDC Project Number: QED1023B

Work Order Letter No. 12715-LBA-4-11632





**Table 3. Summary of Polycyclic Aromatic Hydrocarbons (PAHs) Detected In Soil  
Phase II Subsurface Corridor Investigation for Replacement of Trunk and Distribution Water Main in Cypress Avenue  
Queens and Brooklyn, New York**

PAHs	Unrestricted Use (Track 1) Soil Cleanup Objectives (SCOs)	Restricted- Residential Use (Track 2) Soil Cleanup Objectives (SCOs)	Commercial Use (Track 2) Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth											
				SB01	SB02	SB03	SB04	SB05	SB06	SB07	SB08	SB09	SB10		
				6/2/2017 0.5 - 14.0	6/2/2017 0.5 - 13.5	6/2/2017 0.5 - 13.5	6/2/2017 0.5 - 2.0	6/2/2017 0.5 - 14.5	6/2/2017 0.0 - 13.5	6/2/2017 0.5 - 14.0	6/2/2017 0.5 - 12.5	6/2/2017 0.5 - 12.5	6/6/2017 0.5 - 12.5		
Benzo[a]anthracene	1	1	5.6	0.058	ND	ND	ND	0.046	ND	ND	ND	ND	ND	ND	ND
Benzo[a]pyrene	1	1	1	0.056	ND	ND	0.049	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[b]fluoranthene	1	1	5.6	0.066	ND	ND	0.064	0.056	ND	ND	ND	ND	ND	ND	ND
Benzo[b]fluoranthene	100	100	500	0.045	ND	ND	0.074	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	1	3.9	5.6	0.059	ND	ND	ND	0.053	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	100	100	500	0.096	ND	ND	0.1	0.093	0.052	ND	ND	ND	ND	ND	ND
Indeno[1,2,3-cd]pyrene	0.5	0.5	5.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	100	100	500	0.055	ND	ND	ND	0.085	0.073	ND	ND	ND	ND	ND	ND
Pyrene	100	100	500	0.1	ND	ND	0.1	0.087	0.065	ND	ND	ND	ND	ND	ND

**Notes:**

All concentrations are in parts per million or milligrams per kilogram (ppm or mg/kg)  
ND = Compound not detected above method detection limit (see attached lab report for MDLs)  
SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006)

DDC Project Number: QED1023B

Work Order Letter No. 12715-LBA-4-11632

**Table 3. Summary of Polycyclic Aromatic Hydrocarbons (PAHs) Detected in Soil (Continued)**  
Phase II Subsurface Corridor Investigation for Replacement of Trunk and Distribution Water Main in Cypress Avenue  
Queens and Brooklyn, New York

PAHs	Unrestricted Use (Track 1) Soil Cleanup Objectives (SCOs)	Restricted-Residential Use (Track 2) Soil Cleanup Objectives (SCOs)	Commercial Use (Track 2) Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth											
				SB11	SB12	SB13	SB14	SB15	SB16	SB17	SB18	SB19	SB20		
				6/5/2017 0.5 - 11.5	6/5/2017 0.5 - 12.0	6/5/2017 0.5 - 14.5	6/5/2017 0.5 - 14.0	6/5/2017 0.5 - 13.0	6/6/2017 0.5 - 6.5	6/6/2017 0.5 - 14.0	6/6/2017 0.5 - 13.0	6/6/2017 0.5 - 14.0	6/6/2017 0.0 - 14.0		
Benzo[a]anthracene	1	1	5.6	ND	ND	ND	0.039	ND	0.079	ND	ND	ND	ND	ND	ND
Benzo[a]pyrene	1	1	1	ND	ND	ND	ND	ND	0.077	ND	ND	ND	ND	ND	ND
Benzo[b]fluoranthene	1	1	5.6	ND	ND	ND	0.043	ND	0.1	ND	ND	ND	ND	ND	ND
Benzo[k]fluoranthene	100	100	500	ND	ND	ND	ND	ND	0.053	ND	ND	ND	ND	ND	ND
Chrysene	1	3.9	56	ND	ND	ND	ND	ND	0.084	ND	ND	ND	ND	ND	ND
Fluoranthene	100	100	500	ND	ND	0.04	0.071	ND	0.12	ND	ND	ND	ND	ND	ND
Indeno[1,2,3-cd]pyrene	0.5	0.5	5.6	ND	ND	ND	ND	ND	0.048	ND	ND	ND	ND	ND	ND
Phenanthrene	100	100	500	ND	ND	ND	0.066	ND	0.06	ND	ND	ND	ND	ND	ND
Pyrene	100	100	500	ND	ND	0.039	0.073	0.038	0.13	ND	ND	0.045	ND	ND	ND

**Notes:**

All concentrations are in parts per million or milligrams per kilogram (ppm or mg/kg)

ND = Compound not detected above method detection limit (see attached lab report for MDLs)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006)

DDC Project Number: QED1023B

Work Order Letter No. 12715-LBA-4-11632

**Table 4. Summary of Polychlorinated Biphenyls (PCBs) Detected in Soil  
Phase II Subsurface Corridor Investigation for Replacement of Trunk and Distribution Water Main in Cypress Avenue  
Queens and Brooklyn, New York**

PCBs*	Unrestricted Use (Track 1) Soil Cleanup Objectives (SCOs)	Restricted-Residential Use (Track 2) Soil Cleanup Objectives (SCOs)	Commercial Use (Track 2) Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth										
				SB01	SB02	SB03	SB04	SB05	SB06	SB07	SB08	SB09	SB10	
				6/2/2017	6/2/2017	6/2/2017	6/2/2017	6/2/2017	6/2/2017	6/2/2017	6/2/2017	6/2/2017	6/2/2017	
	0.1	1	1	ND	0.5 - 13.5	0.5 - 13.5	0.5 - 2.0	0.5 - 14.5	0.0 - 13.5	0.5 - 14.0	0.5 - 12.5	0.5 - 12.5	0.5 - 12.5	ND
Aroclor (Total)				ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

PCBs*	Unrestricted Use (Track 1) Soil Cleanup Objectives (SCOs)	Restricted-Residential Use (Track 2) Soil Cleanup Objectives (SCOs)	Commercial Use (Track 2) Soil Cleanup Objectives (SCOs)	Sample ID, Date Collected, and Depth										
				SB11	SB12	SB13	SB14	SB15	SB16	SB17	SB18	SB19	SB20	
				6/5/2017	6/5/2017	6/5/2017	6/5/2017	6/5/2017	6/6/2017	6/6/2017	6/6/2017	6/6/2017	6/6/2017	
	0.1	1	1	ND	0.5 - 11.5	0.5 - 12.0	0.5 - 14.5	0.5 - 14.0	0.5 - 13.0	0.5 - 6.5	0.5 - 14.0	0.5 - 13.0	0.5 - 14.0	0.0 - 14.0
Aroclor (Total)				ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

**Notes:**

All concentrations are in parts per million or milligrams per kilogram (ppm or mg/kg)  
 ND = Compound not detected above method detection limit (see attached lab report for MDLs)  
 \* Refers to the total concentration of PCBs in the sample  
 SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006)

DDC Project Number: QED1023B

Work Order Letter No. 12715-LBA-4-11632

**Table 5. Summary of Waste Classification Results in Soil**  
 Phase II Subsurface Corridor Investigation for Replacement of Trunk and Distribution Water Main in Cypress Avenue  
 Queens and Brooklyn, New York

Analyte	Resource Conservation and Recovery Act (RCRA) Hazardous Waste Levels (mg/L)	Sample ID, Date Collected, and Depth									
		SB01	SB02	SB03	SB04	SB05	SB06	SB07	SB08	SB09	SB10
		6/2/2017 0.5 - 14.0	6/2/2017 0.5 - 13.5	6/2/2017 0.5 - 13.5	6/2/2017 0.5 - 2.0	6/2/2017 0.5 - 14.5	6/2/2017 0.0 - 13.5	6/2/2017 0.5 - 14.0	6/2/2017 0.5 - 12.5	6/2/2017 0.5 - 12.5	6/6/2017 0.5 - 12.5
RCRA (Including TCLP Metals)		8.6	10	7.3	8.2	7.4	8.5	8.8	8.3	7.4	7.4
pH*	2 - 12.5	NEG	NEG	NEG	NEG	NEG	NEG	NEG	NEG	NEG	NEG
Ignitability**	>140 °F	NEG	NEG	NEG	NEG	NEG	NEG	NEG	NEG	NEG	NEG
Paint Filter Test	NS	NEG	NEG	NEG	NEG	NEG	NEG	NEG	NEG	NEG	NEG
Reactive Cyanide	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Reactive Sulfide	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Barium	100	0.30	0.39	ND	ND	0.38	0.27	0.30	0.33	0.31	0.31
Cadmium	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Lead	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Mercury	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Selenium	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Silver	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TPH											
TPH - Diesel Range Organics	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TPH - Gasoline Range Organics	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

**Notes:**

All concentrations are in parts per million or milligrams per kilogram (ppm or mg/L)

TCLP = Toxicity characteristic leaching procedure

ND = Compound not detected above method detection limit (see attached lab report for MDLs)

NS = No Standard

\*A solid waste exhibits the characteristic of corrosivity if it has a pH less than or equal to 2 or greater than or equal to 12.5.

\*\*A solid waste exhibits the characteristic of ignitability if it has flash point less than 60 °C (140 °F)

\*F = Degrees Fahrenheit

NEG = Negative (flash point was not detected below 140 degrees Fahrenheit)

DOC Project Number: QED1023B

Work Order Letter No. 12715-LBA-4-11632

**Table 5. Summary of Waste Classification Results in Soil (Continued)**  
**Phase II Subsurface Corridor Investigation for Replacement of Trunk and Distribution Water Main in Cypress Avenue**  
**Queens and Brooklyn, New York**

Analyte	Resource Conservation and Recovery Act (RCRA) Hazardous Waste Levels (mg/L)	Sample ID, Date Collected, and Depth									
		SB11 6/5/2017 0.5 - 11.5	SB12 6/5/2017 0.5 - 12.0	SB13 6/5/2017 0.5 - 14.5	SB14 6/5/2017 0.5 - 14.0	SB15 6/5/2017 0.5 - 13.0	SB16 6/6/2017 0.5 - 5.5	SB17 6/6/2017 0.5 - 14.0	SB18 6/6/2017 0.5 - 13.0	SB19 6/6/2017 0.5 - 14.0	SB20 6/6/2017 0.0 - 14.0
RCRA (including TCLP Metals)		7.5	7.6	8.2	7.5	8.2	7.6	7.3	7.5	7.8	8.7
pH*	2 - 12.5	NEG	NEG	NEG	NEG	NEG	NEG	NEG	NEG	NEG	NEG
Ignitability**	>140 °F	NEG	NEG	NEG	NEG	NEG	NEG	NEG	NEG	NEG	NEG
Paint Filter Test	NS	NEG	NEG	NEG	NEG	NEG	NEG	NEG	NEG	NEG	NEG
Reactive Cyanide	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Reactive Sulfide	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Barium	100	0.27	0.31	ND	0.30	0.44	0.26	ND	0.36	ND	0.37
Cadmium	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Lead	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Mercury	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Selenium	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Silver	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TPH		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TPH - Diesel Range Organics	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TPH - Gasoline Range Organics	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

**Notes:**

All concentrations are in parts per million or milligrams per kilogram (ppm or mg/L)

TCLP = Toxicity characteristic leaching procedure

ND = Compound not detected above method detection limit (see attached lab report for MDLs)

NS = No Standard

\*A solid waste exhibits the characteristic of corrosivity if it has a pH less than or equal to 2 or greater than or equal to 12.5.

\*\*A solid waste exhibits the characteristic of ignitability if it has flash point less than 60 °C (140 °F)

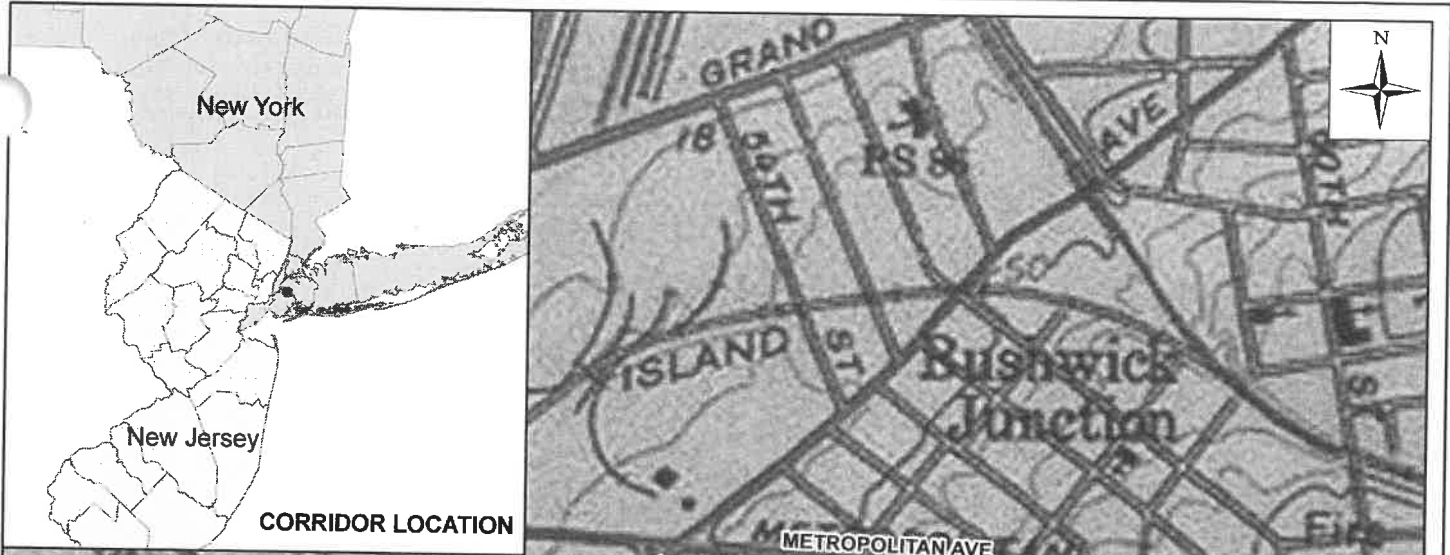
°F = Degrees Fahrenheit

NEG = Negative (flash point) was not detected below 140 degrees Fahrenheit)

DDC Project Number: QED1023B

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**FIGURE 1 – TOPOGRAPHIC CORRIDOR LOCATION MAP**



**Legend**  
Approximate Corridor Area

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**TOPOGRAPHIC SITE LOCATION MAP**  
PHASE II SUBSURFACE CORRIDOR INVESTIGATION  
FOR REPLACEMENT OF TRUNK AND DISTRIBUTION  
WATER MAIN IN CYPRESS AVENUE BETWEEN  
WILLOUGHBY AVENUE TO HIMROD STREET, ETC.  
QUEENS AND BROOKLYN, NEW YORK

SCALE: 1" = 1000' DATE: 7/13/2017 FIGURE: 1



**FIGURE 2 – SOIL BORING LOCATION PLAN**



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**BORING LOCATION PLAN**  
 PHASE II SUBSURFACE CORRIDOR INVESTIGATION  
 FOR REPLACEMENT OF TRUNK AND DISTRIBUTION  
 WATER MAIN IN CYPRESS AVENUE BETWEEN  
 WILLOUGHBY AVENUE TO HIMROD STREET, ETC.  
 QUEENS AND BROOKLYN, NEW YORK

SCALE: 1" = 500' DATE: 7/13/2017 FIGURE: 2

**Legend**

-  Soil Boring Locations
-  Approximate Corridor Area

**APPENDIX A**  
**BORING LOCATION PLAN**



METROPOLITAN AVENUE

RAMP

FLUSHING AVENUE

42'3"

39'7"

SB01

TROUTMAN STREET

**NYC**  
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DDC PROJECT NO. QED1023B WOL NO.: 12715-LBA-4-11632

**BORING LOCATION PLAN**

PHASE II SUBSURFACE CORRIDOR INVESTIGATION  
FOR REPLACEMENT OF TRUNK AND DISTRIBUTION  
WATER MAIN IN CYPRESS AVENUE BETWEEN  
WILLOUGHBY AVENUE TO HIMROD STREET, ETC.  
QUEENS AND BROOKLYN, NEW YORK

SCALE: 1" = 50'

DATE: 7/13/2017

FIGURE: A-1

**Legend**

○ Boring Location



SB02

40'3"

TROUTMAN STREET

202'3"

WOODWARD AVENUE

WOODWARD AVENUE

TROUTMAN STREET

128'5"

40'7"

SB03

Legend

○ Boring Location



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**BORING LOCATION PLAN**

PHASE II SUBSURFACE CORRIDOR INVESTIGATION  
FOR REPLACEMENT OF TRUNK AND DISTRIBUTION  
WATER MAIN IN CYPRESS AVENUE BETWEEN  
WILLOUGHBY AVENUE TO HIMROD STREET, ETC.  
QUEENS AND BROOKLYN, NEW YORK

SCALE: 1" = 50'

DATE: 7/13/2017

FIGURE: A-2

HAZ. 82



ONDERDONK AVENUE

127'2"

34'2"

SB04

TROUTMAN STREET

35'0"

SB05

74'3"

SENECA AVENUE

HAZ. SS



Department of Design and Construction



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**BORING LOCATION PLAN**

PHASE II SUBSURFACE CORRIDOR INVESTIGATION FOR REPLACEMENT OF TRUNK AND DISTRIBUTION WATER MAIN IN CYPRESS AVENUE BETWEEN WILLOUGHBY AVENUE TO HIMROD STREET, ETC. QUEENS AND BROOKLYN, NEW YORK

SCALE: 1" = 50'

DATE: 7/13/2017

FIGURE: A-3

**Legend**

○ Boring Location



SB06

32'10"

TROUTMAN STREET  
197'7"

CYPRESS AVENUE

JEFFERSON STREET

173'5"

SB07

32'3"

Legend

○ Boring Location

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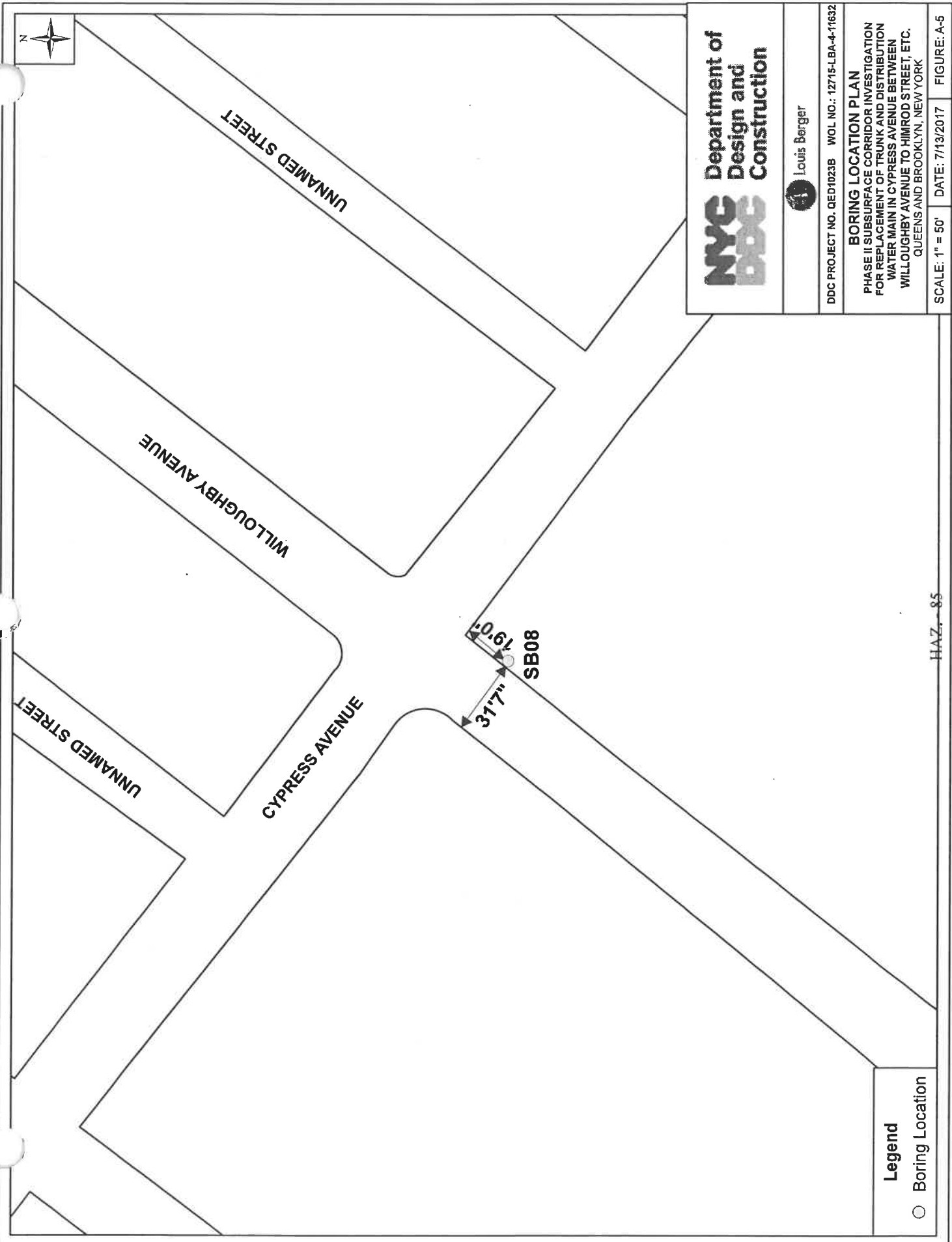
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**BORING LOCATION PLAN**

PHASE II SUBSURFACE CORRIDOR INVESTIGATION  
FOR REPLACEMENT OF TRUNK AND DISTRIBUTION  
WATER MAIN IN CYPRESS AVENUE BETWEEN  
WILLOUGHBY AVENUE TO HIMROD STREET, ETC.  
QUEENS AND BROOKLYN, NEW YORK

SCALE: 1" = 50' DATE: 7/13/2017 FIGURE: A-4

HAZ. 84



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**BORING LOCATION PLAN**  
 PHASE II SUBSURFACE CORRIDOR INVESTIGATION  
 FOR REPLACEMENT OF TRUNK AND DISTRIBUTION  
 WATER MAIN IN CYPRESS AVENUE BETWEEN  
 WILLOUGHBY AVENUE TO HIMROD STREET, ETC.  
 QUEENS AND BROOKLYN, NEW YORK

SCALE: 1" = 50' DATE: 7/13/2017 FIGURE: A-5

**Legend**

- Boring Location

HAZ. 85





HART STREET

ALLEY

CYPRESS AVENUE

DEKALB AVENUE

SB09

35'8"

64'2"

SB10

37'11"

64'2"

Legend

○ Boring Location

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**BORING LOCATION PLAN**

PHASE II SUBSURFACE CORRIDOR INVESTIGATION  
FOR REPLACEMENT OF TRUNK AND DISTRIBUTION  
WATER MAIN IN CYPRESS AVENUE BETWEEN  
WILLOUGHBY AVENUE TO HIMROD STREET, ETC.  
QUEENS AND BROOKLYN, NEW YORK

SCALE: 1" = 50'

DATE: 7/13/2017

FIGURE: A-6

H.A.Z. 86



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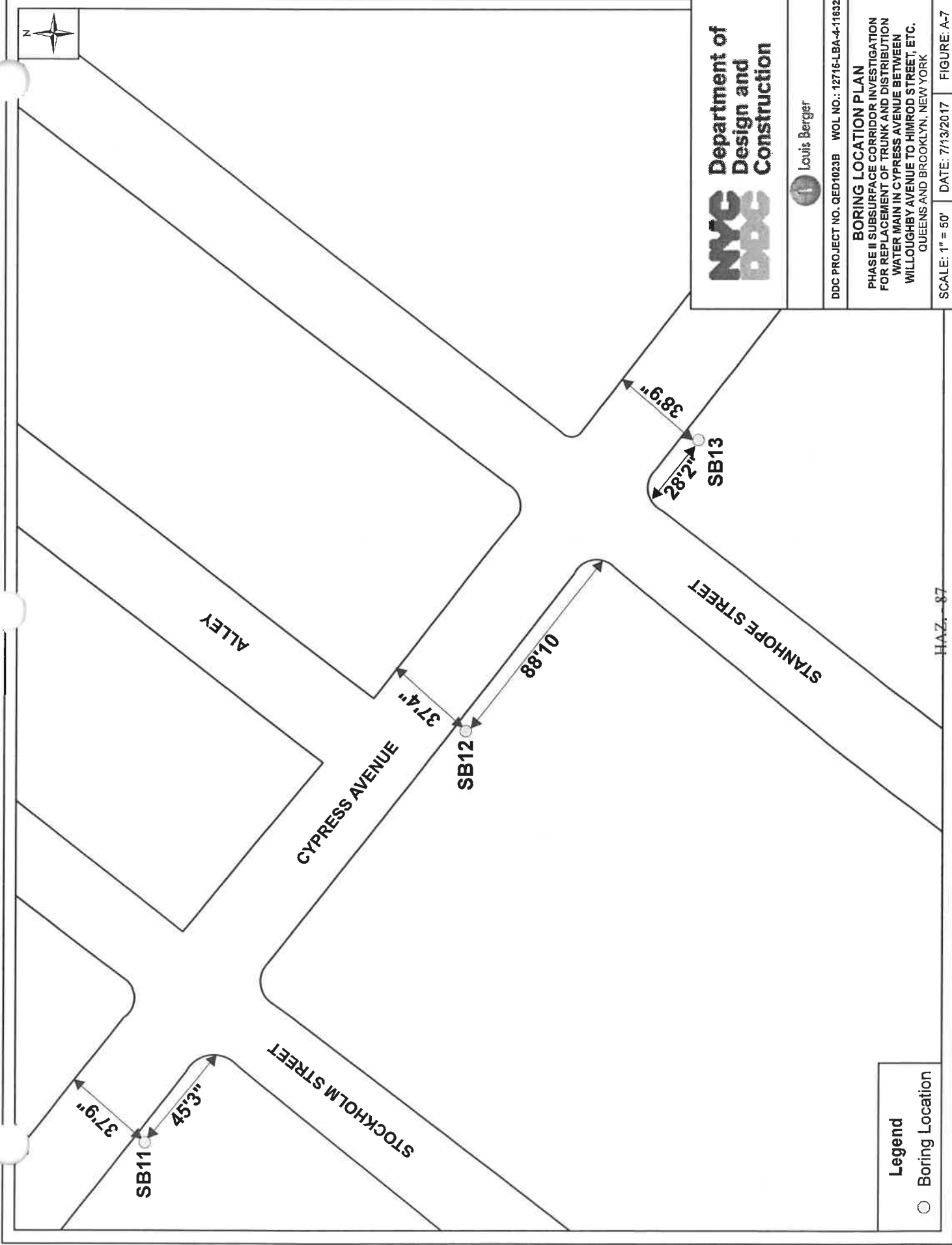
**BORING LOCATION PLAN**

PHASE II SUBSURFACE CORRIDOR INVESTIGATION  
FOR REPLACEMENT OF TRUNK AND DISTRIBUTION  
WATER MAIN IN CYPRESS AVENUE BETWEEN  
WILLOUGHBY AVENUE TO HIMROD STREET, ETC.  
QUEENS AND BROOKLYN, NEW YORK


SCALE: 1" = 50'

DATE: 7/13/2017

FIGURE: A-7



**Legend**

-  Boring Location

HAZ. 87



SB15

33'4"

HIMROD STREET  
115'6"

SENECA AVENUE

86'7"

34'6"

SB14



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DDC PROJECT NO. QED1023B WOL NO.: 12715-LBA-4-11632

**BORING LOCATION PLAN**

PHASE II SUBSURFACE CORRIDOR INVESTIGATION  
FOR REPLACEMENT OF TRUNK AND DISTRIBUTION  
WATER MAIN IN CYPRESS AVENUE BETWEEN  
WILLOUGHBY AVENUE TO HIMROD STREET, ETC.  
QUEENS AND BROOKLYN, NEW YORK

SCALE: 1" = 50'

DATE: 7/13/2017

FIGURE: A-8

**Legend**

○ Boring Location

HAZ. 88



HIMROD STREET

WOODWARD AVENUE

SB17  
30'10"  
32'2"

SB16  
30'10"  
139'10"

**Legend**

- Boring Location



Department of  
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Construction



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DDC PROJECT NO. 0ED1023B WOL. NO.: 12715-LBA-4-11632

**BORING LOCATION PLAN**

PHASE II SUBSURFACE CORRIDOR INVESTIGATION  
FOR REPLACEMENT OF TRUNK AND DISTRIBUTION  
WATER MAIN IN CYPRESS AVENUE BETWEEN  
WILLOUGHBY AVENUE TO HIMROD STREET, ETC.  
QUEENS AND BROOKLYN, NEW YORK

SCALE: 1" = 50'

DATE: 7/13/2017

FIGURE: A-9

HAZ. 89



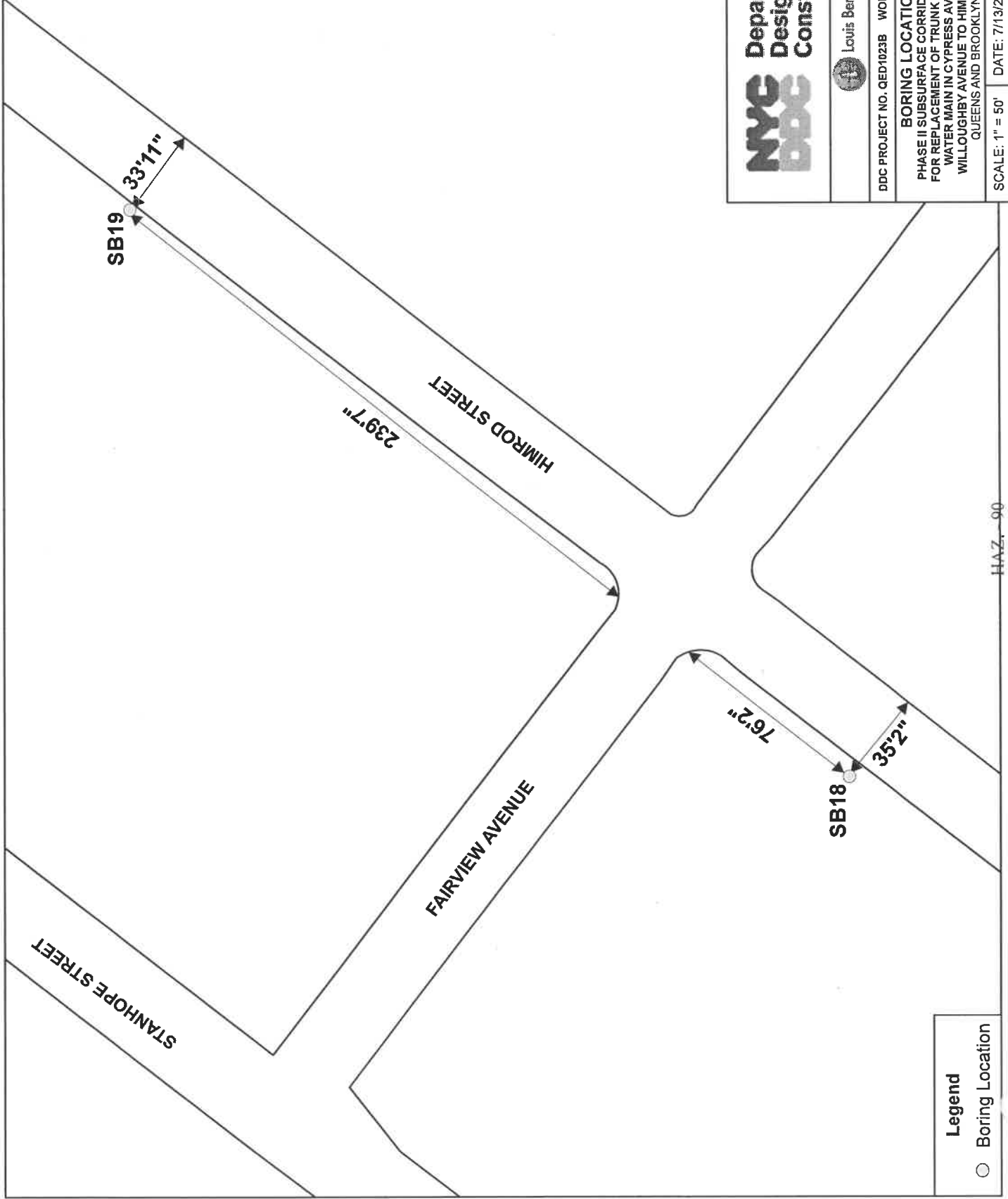
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**BORING LOCATION PLAN**  
PHASE II SUBSURFACE CORRIDOR INVESTIGATION  
FOR REPLACEMENT OF TRUNK AND DISTRIBUTION  
WATER MAIN IN CYPRESS AVENUE BETWEEN  
WILLOUGHBY AVENUE TO HMRD STREET, ETC.  
QUEENS AND BROOKLYN, NEW YORK

SCALE: 1" = 50' DATE: 7/13/2017 FIGURE: A-10



**Legend**

○ Boring Location



HIMROD STREET

GRANDVIEW AVENUE

75'6"

43'2"

SB20

**NYC**  
**DDC**  
Department of  
Design and  
Construction

 Louis Berger

DDC PROJECT NO. QED1023B WOL. NO.: 12715-LBA-4-11632

**BORING LOCATION PLAN**

PHASE II SUBSURFACE CORRIDOR INVESTIGATION  
FOR REPLACEMENT OF TRUNK AND DISTRIBUTION  
WATER MAIN IN CYPRESS AVENUE BETWEEN  
WILLOUGHBY AVENUE TO HIMROD STREET, ETC.,  
QUEENS AND BROOKLYN, NEW YORK

SCALE: 1" = 50' DATE: 7/13/2017 FIGURE: A-11

**Legend**

- Boring Location

HAZ. 01

**APPENDIX B**  
**GEOLOGIC BORING LOGS**



Louis Berger

# Drilling Log

Page 1 of 3

**BORING NO.:** SB01

**LOCATION:** Queens, NY

**CLIENT:** New York City Department of Design and Construction

**PROJECT NO.:** 2011040.242.00

**PROJECT:** Replacement of Trunk and Distribution Water Main in Cypress Avenue

**FMS ID#:** QED1023B

**DRILLING CONTRACTOR:** Aquifer Drilling and Testing Inc

**WOL #:** 12715-LBA-4-11632

**DRILLING METHOD:** Direct Push

**DATE STARTED:** 5/26/2017

### BOREHOLE DATA

### WELL DATA

**DATE FINISHED:** 6/2/2017

**Diameter (in):** 2.25

**Well Diameter (in):** N/A

**DRILLER:** C. Iodice

**Total Depth (ft.):** 15

**Total Depth (ft.):** N/A

**LBA INSPECTOR:** M. Donovan

**Depth to Refusal (ft.):** N/A

**Screen Length (ft.):** N/A

**NORTHING (ft):** 199097.896

**Depth to Water (ft.):** N/A

**Depth to Water (ft.):** N/A

**EASTING (ft):** 1007457.437

**Depth to Rock (ft.):** N/A

**Slot Size (in):** N/A

**SURFACE ELEVATION (ft):** N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.  
Soil boring was pre-cleared to 6 fbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
	0	CONCRETE				<1	Light gray (N7), CONCRETE, dry.	Concrete
	0	FILL				<1	Moderate yellowish brown (10YR 5/4), coarse to fine SAND, some Silt, some coarse to fine Gravel, moist.	Gravelly Silty Sand (Fill)
	2							
	4							





# Drilling Log

Page 2 of 3

**BORING NO.:** SB01

**LOCATION:** Queens, NY

**CLIENT:** New York City Department of Design and Construction

**PROJECT NO.:** 2011040.242.00

**PROJECT:** Replacement of Trunk and Distribution Water Main in Cypress Avenue

**FMS ID#:** QED1023B

**DRILLING CONTRACTOR:** Aquifer Drilling and Testing Inc

**WOL #:** 12715-LBA-4-11632

**DRILLING METHOD:** Direct Push

**DATE STARTED:** 5/26/2017

**BOREHOLE DATA**

**WELL DATA**

**DATE FINISHED:** 6/2/2017

**Diameter (in):** 2.25

**Well Diameter (in):** N/A

**DRILLER:** C. Iodice

**Total Depth (ft.):** 15

**Total Depth (ft.):** N/A

**LBA INSPECTOR:** M. Donovan

**Depth to Refusal (ft.):** N/A

**Screen Length (ft.):** N/A

**NORTHING (ft.):** 199097.896

**Depth to Water (ft.):** N/A

**Depth to Water (ft.):** N/A

**EASTING (ft.):** 1007457.437

**Depth to Rock (ft.):** N/A

**Slot Size (in):** N/A

**SURFACE ELEVATION (ft):** N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.  
Soil boring was pre-cleared to 6 fbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
			ML			<1	Moderate yellowish brown (10YR 5/4), Clayey SILT, some coarse to fine Sand, little coarse to fine Gravel, moist.	Sandy Clayey Silt
	8							
	10		SM			<1	Moderate yellowish brown (10YR 5/4), coarse to fine SAND, some Clayey Silt, trace fine Gravel, moist.	Clayey Silty Sand
	12							



Louis Berger

# Drilling Log

Page 3 of 3

**BORING NO.:** SB01

**LOCATION:** Queens, NY

**CLIENT:** New York City Department of Design and Construction

**PROJECT NO.:** 2011040.242.00

**PROJECT:** Replacement of Trunk and Distribution Water Main in Cypress Avenue

**FMS ID#:** QED1023B

**DRILLING CONTRACTOR:** Aquifer Drilling and Testing Inc

**WOL #:** 12715-LBA-4-11632

**DRILLING METHOD:** Direct Push

**DATE STARTED:** 5/26/2017

### BOREHOLE DATA

### WELL DATA

**DATE FINISHED:** 6/2/2017

**Diameter (in):** 2.25

**Well Diameter (in):** N/A

**DRILLER:** C. Iodice

**Total Depth (ft.):** 15

**Total Depth (ft.):** N/A

**LBA INSPECTOR:** M. Donovan

**Depth to Refusal (ft.):** N/A

**Screen Length (ft.):** N/A

**NORTHING (ft):** 199097.896

**Depth to Water (ft.):** N/A

**Depth to Water (ft.):** N/A

**EASTING (ft):** 1007457.437

**Depth to Rock (ft.):** N/A

**Slot Size (in):** N/A

**SURFACE ELEVATION (ft):** N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.

Soil boring was pre-cleared to 6 ftbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
	14		SM			<1	Moderate yellowish brown (10YR 5/4), coarse to fine SAND, some Clayey Silt, trace fine Gravel, moist.	Collected grab sample SB01 from 13.5 to 14.0 ftbg and composite sample SB01 from 0.5 to 14.0 ftbg.
	16						Total Depth of Boring 15 feet.	



# Drilling Log

Page 1 of 3

**BORING NO.:** SB02

**LOCATION:** Queens, NY

**CLIENT:** New York City Department of Design and Construction

**PROJECT NO.:** 2011040.242.00

**PROJECT:** Replacement of Trunk and Distribution Water Main in Cypress Avenue

**FMS ID#:** QED1023B

**DRILLING CONTRACTOR:** Aquifer Drilling and Testing Inc

**WOL #:** 12715-LBA-4-11632

**DRILLING METHOD:** Direct Push

**DATE STARTED:** 5/26/2017

**BOREHOLE DATA**

**WELL DATA**

**DATE FINISHED:** 6/2/2017

**Diameter (in):** 2.25

**Well Diameter (in):** N/A

**DRILLER:** C. Iodice

**Total Depth (ft.):** 15

**Total Depth (ft.):** N/A

**LBA INSPECTOR:** M. Donovan

**Depth to Refusal (ft.):** N/A

**Screen Length (ft.):** N/A

**NORTHING (ft):** 198816.426

**Depth to Water (ft.):** N/A

**Depth to Water (ft.):** N/A

**EASTING (ft):** 1007239.803

**Depth to Rock (ft.):** N/A

**Slot Size (in):** N/A

**SURFACE ELEVATION (ft):** N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.

Soil boring was pre-cleared to 6 ftbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
		CONCRETE				<1	Light gray (N7), CONCRETE, dry.	Concrete
		FILL				<1	Moderate brown (5YR 3/4), coarse to fine SAND, some Silt, some coarse to fine Gravel, moist.	Gravelly Silty Sand (Fill)



Louis Berger

# Drilling Log

Page 2 of 3

**BORING NO.:** SB02

**LOCATION:** Queens, NY

<b>CLIENT:</b> New York City Department of Design and Construction	<b>PROJECT NO.:</b> 2011040.242.00
<b>PROJECT:</b> Replacement of Trunk and Distribution Water Main in Cypress Avenue	<b>FMS ID#:</b> QED1023B
<b>DRILLING CONTRACTOR:</b> Aquifer Drilling and Testing Inc	<b>WOL #:</b> 12715-LBA-4-11632
<b>DRILLING METHOD:</b> Direct Push	<b>DATE STARTED:</b> 5/26/2017
<b>BOREHOLE DATA</b>	<b>WELL DATA</b>
<b>Diameter (in):</b> 2.25	<b>Well Diameter (in):</b> N/A
<b>Total Depth (ft.):</b> 15	<b>Total Depth (ft.):</b> N/A
<b>Depth to Refusal (ft.):</b> N/A	<b>Screen Length (ft.):</b> N/A
<b>Depth to Water (ft.):</b> N/A	<b>Depth to Water (ft.):</b> N/A
<b>Depth to Rock (ft.):</b> N/A	<b>Slot Size (in):</b> N/A
	<b>DATE FINISHED:</b> 6/2/2017
	<b>DRILLER:</b> C. Iodice
	<b>LBA INSPECTOR:</b> M. Donovan
	<b>NORTHING (ft):</b> 198816.426
	<b>EASTING (ft):</b> 1007239.803
	<b>SURFACE ELEVATION (ft):</b> N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.  
Soil boring was pre-cleared to 6 ftbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
	8		SM			<1	Dark yellowish orange (10YR 6/6), coarse to fine SAND, some Silt, moist.	Silty Sand
	10		ML			<1	Dark yellowish orange (10YR 6/6), Clayey SILT, some coarse to fine Sand, moist.	Sandy Clayey Silt



Louis Berger

# Drilling Log

Page 3 of 3

**BORING NO.:** SB02

**LOCATION:** Queens, NY

**CLIENT:** New York City Department of Design and Construction

**PROJECT NO.:** 2011040.242.00

**PROJECT:** Replacement of Trunk and Distribution Water Main in Cypress Avenue

**FMS ID#:** QED1023B

**DRILLING CONTRACTOR:** Aquifer Drilling and Testing Inc

**WOL #:** 12715-LBA-4-11632

**DRILLING METHOD:** Direct Push

**DATE STARTED:** 5/26/2017

### BOREHOLE DATA

### WELL DATA

**DATE FINISHED:** 6/2/2017

**Diameter (in):** 2.25

**Well Diameter (in):** N/A

**DRILLER:** C. Iodice

**Total Depth (ft.):** 15

**Total Depth (ft.):** N/A

**LBA INSPECTOR:** M. Donovan

**Depth to Refusal (ft.):** N/A

**Screen Length (ft.):** N/A

**NORTHING (ft):** 198816.426

**Depth to Water (ft.):** N/A

**Depth to Water (ft.):** N/A

**EASTING (ft):** 1007239.803

**Depth to Rock (ft.):** N/A

**Slot Size (in):** N/A

**SURFACE ELEVATION (ft):** N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.

Soil boring was pre-cleared to 6 ftbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
	14		ML			Δ	Dark yellowish orange (10YR 6/6), Clayey SILT, some coarse to fine Sand, moist.	Collected grab sample SB02 from 13.0 to 13.5 ftbg and composite sample SB02 from 0.5 to 13.5 ftbg.
	16						Total Depth of Boring 15 feet.	

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Louis Berger

# Drilling Log

Page 1 of 3

**BORING NO.:** SB03

**LOCATION:** Queens, NY

**CLIENT:** New York City Department of Design and Construction  
**PROJECT:** Replacement of Trunk and Distribution Water Main in Cypress Avenue  
**DRILLING CONTRACTOR:** Aquifer Drilling and Testing Inc  
**DRILLING METHOD:** Direct Push

**PROJECT NO.:** 2011040.242.00  
**FMS ID#:** QED1023B  
**WOL #:** 12715-LBA-4-11632  
**DATE STARTED:** 5/26/2017

**BOREHOLE DATA**  
**Diameter (in):** 2.25  
**Total Depth (ft.):** 15  
**Depth to Refusal (ft.):** N/A  
**Depth to Water (ft.):** N/A  
**Depth to Rock (ft.):** N/A

**WELL DATA**  
**Well Diameter (in):** N/A  
**Total Depth (ft.):** N/A  
**Screen Length (ft.):** N/A  
**Depth to Water (ft.):** N/A  
**Slot Size (in):** N/A

**DATE FINISHED:** 6/2/2017  
**DRILLER:** C. Iodice  
**LBA INSPECTOR:** M. Donovan  
**NORTHING (ft):** 198498.194  
**EASTING (ft):** 1007058.517  
**SURFACE ELEVATION (ft):** N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.  
 Soil boring was pre-cleared to 6 ftbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
		CONCRETE				<1	Light gray (N7), CONCRETE, dry.	Concrete
		FILL				<1	Moderate yellowish brown (10YR 5/4), coarse to fine SAND, some Silt, some coarse to fine Gravel, (4% fill material: brick, plastic), moist.	Gravelly Silty Sand (Fill)



Louis Berger

# Drilling Log

Page 2 of 3

**BORING NO.:** SB03

**LOCATION:** Queens, NY

**CLIENT:** New York City Department of Design and Construction

**PROJECT NO.:** 2011040.242.00

**PROJECT:** Replacement of Trunk and Distribution Water Main in Cypress Avenue

**FMS ID#:** QED1023B

**DRILLING CONTRACTOR:** Aquifer Drilling and Testing Inc

**WOL #:** 12715-LBA-4-11632

**DRILLING METHOD:** Direct Push

**DATE STARTED:** 5/26/2017

### BOREHOLE DATA

### WELL DATA

**DATE FINISHED:** 6/2/2017

**Diameter (in):** 2.25

**Well Diameter (in):** N/A

**DRILLER:** C. Iodice

**Total Depth (ft.):** 15

**Total Depth (ft.):** N/A

**LBA INSPECTOR:** M. Donovan

**Depth to Refusal (ft.):** N/A

**Screen Length (ft.):** N/A

**NORTHING (ft):** 198498.194

**Depth to Water (ft.):** N/A

**Depth to Water (ft.):** N/A

**EASTING (ft):** 1007058.517

**Depth to Rock (ft.):** N/A

**Slot Size (in):** N/A

**SURFACE ELEVATION (ft):** N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.

Soil boring was pre-cleared to 6 ftbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
	8		SM			<1	Dark yellowish brown (10YR 4/2), coarse to fine SAND, some Clayey Silt, little coarse to fine Gravel, moist.	Clayey Silty Sand
	10		SM			<1	Dark yellowish brown (10YR 4/2), coarse to fine SAND, some Silt, little coarse to fine Gravel, moist.	Silty Sand



Louis Berger

# Drilling Log

Page 3 of 3

**BORING NO.:** SB03

**LOCATION:** Queens, NY

<b>CLIENT:</b> New York City Department of Design and Construction	<b>PROJECT NO.:</b> 2011040.242.00
<b>PROJECT:</b> Replacement of Trunk and Distribution Water Main in Cypress Avenue	<b>FMS ID#:</b> QED1023B
<b>DRILLING CONTRACTOR:</b> Aquifer Drilling and Testing Inc	<b>WOL #:</b> 12715-LBA-4-11632
<b>DRILLING METHOD:</b> Direct Push	<b>DATE STARTED:</b> 5/26/2017
<b>BOREHOLE DATA</b>	<b>WELL DATA</b>
<b>Diameter (in):</b> 2.25	<b>Well Diameter (in):</b> N/A
<b>Total Depth (ft.):</b> 15	<b>Total Depth (ft.):</b> N/A
<b>Depth to Refusal (ft.):</b> N/A	<b>Screen Length (ft.):</b> N/A
<b>Depth to Water (ft.):</b> N/A	<b>Depth to Water (ft.):</b> N/A
<b>Depth to Rock (ft.):</b> N/A	<b>Slot Size (in):</b> N/A
	<b>DATE FINISHED:</b> 6/2/2017
	<b>DRILLER:</b> C. Iodice
	<b>LBA INSPECTOR:</b> M. Donovan
	<b>NORTHING (ft):</b> 198498.194
	<b>EASTING (ft):</b> 1007058.517
	<b>SURFACE ELEVATION (ft):</b> N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.  
Soil boring was pre-cleared to 6 ftbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
	14		SM			<1	Dark yellowish brown (10YR 4/2), coarse to fine SAND, some Silt, little coarse to fine Gravel, moist.	Silty Sand; Collected grab sample SB03 from 13.0 to 13.5 ftbg and composite sample SB03 from 0.5 to 13.5 ftbg.
	16						Total Depth of Boring 15 feet.	





Louis Berger

# Drilling Log

Page 1 of 1

**BORING NO.:** SB04

**LOCATION:** Queens, NY

**CLIENT:** New York City Department of Design and Construction

**PROJECT NO.:** 2011040.242.00

**PROJECT:** Replacement of Trunk and Distribution Water Main in Cypress Avenue

**FMS ID#:** QED1023B

**DRILLING CONTRACTOR:** Aquifer Drilling and Testing Inc

**WOL #:** 12715-LBA-4-11632

**DRILLING METHOD:** Hand Auger

**DATE STARTED:** 5/26/2017

### BOREHOLE DATA

### WELL DATA

**DATE FINISHED:** 6/2/2017

**Diameter (in):** 3.0

**Well Diameter (in):** N/A

**DRILLER:** C. Iodice

**Total Depth (ft.):** 2

**Total Depth (ft.):** N/A

**LBA INSPECTOR:** M. Donovan

**Depth to Refusal (ft.):** 2.0

**Screen Length (ft.):** N/A

**NORTHING (ft):** 198099.680

**Depth to Water (ft.):** N/A

**Depth to Water (ft.):** N/A

**EASTING (ft):** 1006736.187

**Depth to Rock (ft.):** N/A

**Slot Size (in):** N/A

**SURFACE ELEVATION (ft):** N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
	0		FILL			<1	Dark yellowish orange (10YR 6/6), BOULDERS, some coarse to fine SAND, little coarse to fine Gravel, moist.	Sandy Boulders (Fill); Collected grab sample SB04 from 1.5 to 2.0 ftbg and composite sample SB04 from 0.5 to 2.0 ftbg.
	2						Total Depth of Boring 2 feet.	



Louis Berger

# Drilling Log

Page 1 of 3

**BORING NO.:** SB05

**LOCATION:** Queens, NY

<b>CLIENT:</b> New York City Department of Design and Construction	<b>PROJECT NO.:</b> 2011040.242.00
<b>PROJECT:</b> Replacement of Trunk and Distribution Water Main in Cypress Avenue	<b>FMS ID#:</b> QED1023B
<b>DRILLING CONTRACTOR:</b> Aquifer Drilling and Testing Inc	<b>WOL #:</b> 12715-LBA-4-11632
<b>DRILLING METHOD:</b> Direct Push	<b>DATE STARTED:</b> 5/30/2017
<b>BOREHOLE DATA</b>	<b>WELL DATA</b>
<b>Diameter (in):</b> 2.25	<b>Well Diameter (in):</b> N/A
<b>Total Depth (ft.):</b> 15	<b>Total Depth (ft.):</b> N/A
<b>Depth to Refusal (ft.):</b> N/A	<b>Screen Length (ft.):</b> N/A
<b>Depth to Water (ft.):</b> N/A	<b>Depth to Water (ft.):</b> N/A
<b>Depth to Rock (ft.):</b> N/A	<b>Slot Size (in):</b> N/A
	<b>DATE FINISHED:</b> 6/2/2017
	<b>DRILLER:</b> C. Iodice
	<b>LBA INSPECTOR:</b> M. Donovan
	<b>NORTHING (ft):</b> 197953.845
	<b>EASTING (ft):</b> 1006624.040
	<b>SURFACE ELEVATION (ft):</b> N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.  
Soil boring was pre-cleared to 6 ftbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
	0		FILL			<1	Dark gray (N3), coarse to fine SAND, some Silt, (5% fill material: brick), moist.	Silty Sand (Fill);
	0		FILL			<1	Light brown (5YR 5/6), coarse to fine SAND, little Silt, some coarse to fine Gravel, moist.	Gravelly Sand (Fill)
	2							
	4							
	6							



# Drilling Log

Page 2 of 3

**BORING NO.:** SB05

**LOCATION:** Queens, NY

**CLIENT:** New York City Department of Design and Construction

**PROJECT NO.:** 2011040.242.00

**PROJECT:** Replacement of Trunk and Distribution Water Main in Cypress Avenue

**FMS ID#:** QED1023B

**DRILLING CONTRACTOR:** Aquifer Drilling and Testing Inc

**WOL #:** 12715-LBA-4-11632

**DRILLING METHOD:** Direct Push

**DATE STARTED:** 5/30/2017

**BOREHOLE DATA**

**WELL DATA**

**DATE FINISHED:** 6/2/2017

**Diameter (in):** 2.25

**Well Diameter (in):** N/A

**DRILLER:** C. Iodice

**Total Depth (ft.):** 15

**Total Depth (ft.):** N/A

**LBA INSPECTOR:** M. Donovan

**Depth to Refusal (ft.):** N/A

**Screen Length (ft.):** N/A

**NORTHING (ft):** 197953.845

**Depth to Water (ft.):** N/A

**Depth to Water (ft.):** N/A

**EASTING (ft):** 1006624.040

**Depth to Rock (ft.):** N/A

**Slot Size (in):** N/A

**SURFACE ELEVATION (ft):** N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.

Soil boring was pre-cleared to 6 ftbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
			FILL			<1	Pale brown (5YR 5/2), coarse to fine SAND, little Silt, some coarse to fine Gravel, moist.	
	8		FILL			<1	Moderate red (5R 4/6), FILL MATERIAL (brick) dry.	Fill Material
	10		SP			<1	Grayish orange (10YR 7/4), coarse to fine SAND, little Silt, little coarse to fine Gravel, moist.	Sand

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Louis Berger

# Drilling Log

Page 3 of 3

**BORING NO.:** SB05

**LOCATION:** Queens, NY

**CLIENT:** New York City Department of Design and Construction  
**PROJECT:** Replacement of Trunk and Distribution Water Main in Cypress Avenue  
**DRILLING CONTRACTOR:** Aquifer Drilling and Testing Inc  
**DRILLING METHOD:** Direct Push

**PROJECT NO.:** 2011040.242.00  
**FMS ID#:** QED1023B  
**WOL #:** 12715-LBA-4-11632  
**DATE STARTED:** 5/30/2017  
**DATE FINISHED:** 6/2/2017

BOREHOLE DATA		WELL DATA			
<b>Diameter (in):</b>	2.25	<b>Well Diameter (in):</b>	N/A	<b>DRILLER:</b>	C. Iodice
<b>Total Depth (ft.):</b>	15	<b>Total Depth (ft.):</b>	N/A	<b>LBA INSPECTOR:</b>	M. Donovan
<b>Depth to Refusal (ft.):</b>	N/A	<b>Screen Length (ft.):</b>	N/A	<b>NORTHING (ft):</b>	197953.845
<b>Depth to Water (ft.):</b>	N/A	<b>Depth to Water (ft.):</b>	N/A	<b>EASTING (ft):</b>	1006624.040
<b>Depth to Rock (ft.):</b>	N/A	<b>Slot Size (in):</b>	N/A	<b>SURFACE ELEVATION (ft):</b>	N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.  
 Soil boring was pre-cleared to 6 ftbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
	14		SP			<1	Grayish orange (10YR 7/4), coarse to fine SAND, little Silt, little coarse to fine Gravel, moist.	Collected grab sample SB05 from 14.0 to 14.5 ftbg and composite sample SB05 from 0.5 to 14.5 ftbg.
	16						Total Depth of Boring 15 feet.	



# Drilling Log

Page 1 of 3

**BORING NO.:** SB06

**LOCATION:** Queens, NY

**CLIENT:** New York City Department of Design and Construction

**PROJECT NO.:** 2011040.242.00

**PROJECT:** Replacement of Trunk and Distribution Water Main in Cypress Avenue

**FMS ID#:** QED1023B

**DRILLING CONTRACTOR:** Aquifer Drilling and Testing Inc

**WOL #:** 12715-LBA-4-11632

**DRILLING METHOD:** Direct Push

**DATE STARTED:** 5/30/2017

**BOREHOLE DATA**

**WELL DATA**

**DATE FINISHED:** 6/2/2017

**Diameter (in):** 2.25

**Well Diameter (in):** N/A

**DRILLER:** C. Iodice

**Total Depth (ft.):** 15

**Total Depth (ft.):** N/A

**LBA INSPECTOR:** M. Donovan

**Depth to Refusal (ft):** N/A

**Screen Length (ft):** N/A

**NORTHING (ft):** 197663.954

**Depth to Water (ft.):** N/A

**Depth to Water (ft.):** N/A

**EASTING (ft):** 1006353.163

**Depth to Rock (ft.):** N/A

**Slot Size (in):** N/A

**SURFACE ELEVATION (ft):** N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.

Soil boring was pre-cleared to 6 ftbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
	0	CONCRETE				<1	Light gray (N7), CONCRETE, dry.	Concrete
	0	FILL				<1	Dusky yellowish brown (10YR 2/2), coarse to fine SAND, some Silt, little Cobbles, moist.	Silty Sand (Fill)
	2							
	4	FILL				<1	Light brown (5YR 5/6), SILT, some coarse to fine Sand, moist.	Sandy Silt (Fill)
	6							



Louis Berger

# Drilling Log

Page 2 of 3

**BORING NO.:** SB06

**LOCATION:** Queens, NY

**CLIENT:** New York City Department of Design and Construction

**PROJECT NO.:** 2011040.242.00

**PROJECT:** Replacement of Trunk and Distribution Water Main in Cypress Avenue

**FMS ID#:** QED1023B

**DRILLING CONTRACTOR:** Aquifer Drilling and Testing Inc

**WOL #:** 12715-LBA-4-11632

**DRILLING METHOD:** Direct Push

**DATE STARTED:** 5/30/2017

### BOREHOLE DATA

### WELL DATA

**DATE FINISHED:** 6/2/2017

**Diameter (in):** 2.25

**Well Diameter (in):** N/A

**DRILLER:** C. Iodice

**Total Depth (ft.):** 15

**Total Depth (ft.):** N/A

**LBA INSPECTOR:** M. Donovan

**Depth to Refusal (ft.):** N/A

**Screen Length (ft.):** N/A

**NORTHING (ft):** 197663.954

**Depth to Water (ft.):** N/A

**Depth to Water (ft.):** N/A

**EASTING (ft):** 1006353.163

**Depth to Rock (ft.):** N/A

**Slot Size (in):** N/A

**SURFACE ELEVATION (ft):** N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.

Soil boring was pre-cleared to 6 ftbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
	8		FILL			<1	Light brown (5YR 5/6), SILT, some coarse to fine Sand, little coarse to fine Gravel, moist.	
	10		FILL			<1	Moderate red (5R 4/6), FILL MATERIAL (brick), moist.	Fill Material
	12		SM			<1	Light brown (5YR 5/6), coarse to fine SAND, some Silt, little coarse to fine Gravel, moist.	



# Drilling Log

Page 3 of 3

**BORING NO.:** SB06

**LOCATION:** Queens, NY

**CLIENT:** New York City Department of Design and Construction

**PROJECT NO.:** 2011040.242.00

**PROJECT:** Replacement of Trunk and Distribution Water Main in Cypress Avenue

**FMS ID#:** QED1023B

**DRILLING CONTRACTOR:** Aquifer Drilling and Testing Inc

**WOL #:** 12715-LBA-4-11632

**DRILLING METHOD:** Direct Push

**DATE STARTED:** 5/30/2017

**BOREHOLE DATA**

**WELL DATA**

**DATE FINISHED:** 6/2/2017

**Diameter (in):** 2.25

**Well Diameter (in):** N/A

**DRILLER:** C. Iodice

**Total Depth (ft.):** 15

**Total Depth (ft.):** N/A

**LBA INSPECTOR:** M. Donovan

**Depth to Refusal (ft.):** N/A

**Screen Length (ft.):** N/A

**NORTHING (ft):** 197663.954

**Depth to Water (ft.):** N/A

**Depth to Water (ft.):** N/A

**EASTING (ft):** 1006353.163

**Depth to Rock (ft.):** N/A

**Slot Size (in):** N/A

**SURFACE ELEVATION (ft):** N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.

Soil boring was pre-cleared to 6 ftbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
	14		SM			<1	Light brown (5YR 5/6), coarse to fine SAND, some Silt, little coarse to fine Gravel, moist.	Silty Sand; Collected grab sample SB06 from 13.0 to 13.5 ftbg and composite sample SB06 from 0.5 to 13.5 ftbg.
	16						Total Depth of Boring 15 feet.	



Louis Berger

# Drilling Log

Page 1 of 3

**BORING NO.:** SB07

**LOCATION:** Brooklyn, NY

**CLIENT:** New York City Department of Design and Construction

**PROJECT NO.:** 2011040.242.00

**PROJECT:** Replacement of Trunk and Distribution Water Main in Cypress Avenue

**FMS ID#:** QED1023B

**DRILLING CONTRACTOR:** Aquifer Drilling and Testing Inc

**WOL #:** 12715-LBA-4-11632

**DRILLING METHOD:** Direct Push

**DATE STARTED:** 5/30/2017

### BOREHOLE DATA

### WELL DATA

**DATE FINISHED:** 6/2/2017

**Diameter (in):** 2.25

**Well Diameter (in):** N/A

**DRILLER:** C. Iodice

**Total Depth (ft.):** 15

**Total Depth (ft.):** N/A

**LBA INSPECTOR:** M. Donovan

**Depth to Refusal (ft):** N/A

**Screen Length (ft):** N/A

**NORTHING (ft):** 197342.027

**Depth to Water (ft.):** N/A

**Depth to Water (ft.):** N/A

**EASTING (ft):** 1006106.430

**Depth to Rock (ft.):** N/A

**Slot Size (in):** N/A

**SURFACE ELEVATION (ft):** N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.

Soil boring was pre-cleared to 6 ftbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
			FILL			<1	Dusky yellowish brown (10YR 2/2), coarse to fine SAND, some Clayey Silt, little coarse to fine Gravel, moist.	Clayey Silty Sand (Fill)
	2		FILL			<1	Dark yellowish orange (10YR 6/6), coarse to fine SAND, moist.	Sand (Fill)





Louis Berger

# Drilling Log

Page 2 of 3

**BORING NO.:** SB07

**LOCATION:** Brooklyn, NY

**CLIENT:** New York City Department of Design and Construction

**PROJECT NO.:** 2011040.242.00

**PROJECT:** Replacement of Trunk and Distribution Water Main in Cypress Avenue

**FMS ID#:** QED1023B

**DRILLING CONTRACTOR:** Aquifer Drilling and Testing Inc

**WOL #:** 12715-LBA-4-11632

**DRILLING METHOD:** Direct Push

**DATE STARTED:** 5/30/2017

### BOREHOLE DATA

### WELL DATA

**DATE FINISHED:** 6/2/2017

**Diameter (in):** 2.25

**Well Diameter (in):** N/A

**DRILLER:** C. Iodice

**Total Depth (ft.):** 15

**Total Depth (ft.):** N/A

**LBA INSPECTOR:** M. Donovan

**Depth to Refusal (ft.):** N/A

**Screen Length (ft.):** N/A

**NORTHING (ft):** 197342.027

**Depth to Water (ft.):** N/A

**Depth to Water (ft.):** N/A

**EASTING (ft):** 1006106.430

**Depth to Rock (ft.):** N/A

**Slot Size (in):** N/A

**SURFACE ELEVATION (ft):** N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.

Soil boring was pre-cleared to 6 ftbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
	8		SP			<1	Dark yellowish orange (10YR 6/6), coarse to fine SAND, little coarse to fine Gravel, moist.	Sand
	10		SP			<1	Dark yellowish orange (10YR 6/6), coarse to fine SAND, moist.	



Louis Berger

# Drilling Log

Page 3 of 3

**BORING NO.:** SB07

**LOCATION:** Brooklyn, NY

**CLIENT:** New York City Department of Design and Construction

**PROJECT NO.:** 2011040.242.00

**PROJECT:** Replacement of Trunk and Distribution Water Main in Cypress Avenue

**FMS ID#:** QED1023B

**DRILLING CONTRACTOR:** Aquifer Drilling and Testing Inc

**WOL #:** 12715-LBA-4-11632

**DRILLING METHOD:** Direct Push

**DATE STARTED:** 5/30/2017

### BOREHOLE DATA

### WELL DATA

**DATE FINISHED:** 6/2/2017

**Diameter (in):** 2.25

**Well Diameter (in):** N/A

**DRILLER:** C. Iodice

**Total Depth (ft.):** 15

**Total Depth (ft.):** N/A

**LBA INSPECTOR:** M. Donovan

**Depth to Refusal (ft.):** N/A

**Screen Length (ft.):** N/A

**NORTHING (ft):** 197342.027

**Depth to Water (ft.):** N/A

**Depth to Water (ft.):** N/A

**EASTING (ft):** 1006106.430

**Depth to Rock (ft.):** N/A

**Slot Size (in):** N/A

**SURFACE ELEVATION (ft):** N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.

Soil boring was pre-cleared to 6 ftbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
	14		SP			<1	Dark yellowish orange (10YR 6/6), coarse to fine SAND, moist.	Collected grab sample SB07 from 13.5 to 14.0 ftbg and composite sample SB07 from 0.5 to 14.0 ftbg.
	16						Total Depth of Boring 15 feet.	



# Drilling Log

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**BORING NO.:** SB08

**LOCATION:** Brooklyn, NY

<b>CLIENT:</b> New York City Department of Design and Construction	<b>PROJECT NO.:</b> 2011040.242.00
<b>PROJECT:</b> Replacement of Trunk and Distribution Water Main in Cypress Avenue	<b>FMS ID#:</b> QED1023B
<b>DRILLING CONTRACTOR:</b> Aquifer Drilling and Testing Inc	<b>WOL #:</b> 12715-LBA-4-11632
<b>DRILLING METHOD:</b> Direct Push	<b>DATE STARTED:</b> 5/30/2017
<b>BOREHOLE DATA</b>	<b>WELL DATA</b>
<b>Diameter (in):</b> 2.25	<b>Well Diameter (in):</b> N/A
<b>Total Depth (ft.):</b> 15	<b>Total Depth (ft.):</b> N/A
<b>Depth to Refusal (ft.):</b> N/A	<b>Screen Length (ft.):</b> N/A
<b>Depth to Water (ft.):</b> N/A	<b>Depth to Water (ft.):</b> N/A
<b>Depth to Rock (ft.):</b> N/A	<b>Slot Size (in):</b> N/A
	<b>DATE FINISHED:</b> 6/2/2017
	<b>DRILLER:</b> C. Iodice
	<b>LBA INSPECTOR:</b> M. Donovan
	<b>NORTHING (ft):</b> 197122.454
	<b>EASTING (ft):</b> 1006636.173
	<b>SURFACE ELEVATION (ft):</b> N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.  
Soil boring was pre-cleared to 6 fbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
	0		FILL			<1	Dark yellowish brown (10YR 4/2), coarse to fine GRAVEL, some coarse to fine Sand, some Cobble, (3% fill material: brick), moist.	Sandy Gravel (Fill)



Louis Berger

# Drilling Log

Page 2 of 3

**BORING NO.:** SB08

**LOCATION:** Brooklyn, NY

<b>CLIENT:</b> New York City Department of Design and Construction	<b>PROJECT NO.:</b> 2011040.242.00
<b>PROJECT:</b> Replacement of Trunk and Distribution Water Main in Cypress Avenue	<b>FMS ID#:</b> QED1023B
<b>DRILLING CONTRACTOR:</b> Aquifer Drilling and Testing Inc	<b>WOL #:</b> 12715-LBA-4-11632
<b>DRILLING METHOD:</b> Direct Push	<b>DATE STARTED:</b> 5/30/2017
<b>BOREHOLE DATA</b>	<b>WELL DATA</b>
<b>Diameter (in):</b> 2.25	<b>Well Diameter (in):</b> N/A
<b>Total Depth (ft.):</b> 15	<b>Total Depth (ft.):</b> N/A
<b>Depth to Refusal (ft.):</b> N/A	<b>Screen Length (ft.):</b> N/A
<b>Depth to Water (ft.):</b> N/A	<b>Depth to Water (ft.):</b> N/A
<b>Depth to Rock (ft.):</b> N/A	<b>Slot Size (in):</b> N/A
	<b>DATE FINISHED:</b> 6/2/2017
	<b>DRILLER:</b> C. Iodice
	<b>LBA INSPECTOR:</b> M. Donovan
	<b>NORTHING (ft):</b> 197122.454
	<b>EASTING (ft):</b> 1006636.173
	<b>SURFACE ELEVATION (ft):</b> N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.  
Soil boring was pre-cleared to 6 ftbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
	8		SP			<1	Dark yellowish brown (10YR 4/2), coarse to fine SAND, some coarse to fine Gravel, little Silt, moist.	Gravelly Sand
	10		SP			<1	Dark yellowish brown (10YR 4/2), coarse to fine SAND, little Silt, some coarse to fine Gravel, moist.	



# Drilling Log

Page 3 of 3

**BORING NO.:** SB08

**LOCATION:** Brooklyn, NY

<b>CLIENT:</b> New York City Department of Design and Construction	<b>PROJECT NO.:</b> 2011040.242.00
<b>PROJECT:</b> Replacement of Trunk and Distribution Water Main in Cypress Avenue	<b>FMS ID#:</b> QED1023B
<b>DRILLING CONTRACTOR:</b> Aquifer Drilling and Testing Inc	<b>WOL #:</b> 12715-LBA-4-11632
<b>DRILLING METHOD:</b> Direct Push	<b>DATE STARTED:</b> 5/30/2017
<b>BOREHOLE DATA</b>	<b>WELL DATA</b>
<b>Diameter (in):</b> 2.25	<b>Well Diameter (in):</b> N/A
<b>Total Depth (ft.):</b> 15	<b>Total Depth (ft.):</b> N/A
<b>Depth to Refusal (ft.):</b> N/A	<b>Screen Length (ft.):</b> N/A
<b>Depth to Water (ft.):</b> N/A	<b>Depth to Water (ft.):</b> N/A
<b>Depth to Rock (ft.):</b> N/A	<b>Slot Size (in):</b> N/A
	<b>DRILLER:</b> C. Iodice
	<b>LBA INSPECTOR:</b> M. Donovan
	<b>NORTHING (ft):</b> 197122.454
	<b>EASTING (ft):</b> 1006636.173
	<b>SURFACE ELEVATION (ft):</b> N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.  
Soil boring was pre-cleared to 6 ftbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
	14		SP			<1	Dark yellowish brown (10YR 4/2), coarse to fine SAND, little Silt, some coarse to fine Gravel, moist.	Collected grab sample SB08 from 12.0 to 12.5 ftbg and composite sample SB08 from 0.5 to 12.5 ftbg.
	16						Total Depth of Boring 15 feet.	



Louis Berger

# Drilling Log

Page 1 of 3

**BORING NO.:** SB09

**LOCATION:** Queens, NY

**CLIENT:** New York City Department of Design and Construction

**PROJECT NO.:** 2011040.242.00

**PROJECT:** Replacement of Trunk and Distribution Water Main in Cypress Avenue

**FMS ID#:** QED1023B

**DRILLING CONTRACTOR:** Aquifer Drilling and Testing Inc

**WOL #:** 12715-LBA-4-11632

**DRILLING METHOD:** Direct Push

**DATE STARTED:** 5/30/2017

### BOREHOLE DATA

### WELL DATA

**DATE FINISHED:** 6/5/2017

**Diameter (in):** 2.25

**Well Diameter (in):** N/A

**DRILLER:** R. Allegrezza

**Total Depth (ft.):** 15

**Total Depth (ft.):** N/A

**LBA INSPECTOR:** M. Donovan

**Depth to Refusal (ft.):** N/A

**Screen Length (ft.):** N/A

**NORTHING (ft):** 196909.301

**Depth to Water (ft.):** N/A

**Depth to Water (ft.):** N/A







**EASTING (ft):** 1007006.500

**Depth to Rock (ft.):** N/A

**Slot Size (in):** N/A

**SURFACE ELEVATION (ft):** N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.  
Soil boring was pre-cleared to 6 ftbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
	0		FILL			<1	Dusky yellowish brown (10YR 2/2), coarse to fine SAND, some Clayey Silt, moist.	Clayey Silty Sand (Fill)
	2		FILL			<1	Pale brown (5YR 5/2), coarse to fine SAND, some Silt & Clay, moist.	



# Drilling Log

Page 2 of 3

**BORING NO.:** SB09

**LOCATION:** Queens, NY

**CLIENT:** New York City Department of Design and Construction

**PROJECT NO.:** 2011040.242.00

**PROJECT:** Replacement of Trunk and Distribution Water Main in Cypress Avenue

**FMS ID#:** QED1023B

**DRILLING CONTRACTOR:** Aquifer Drilling and Testing Inc

**WOL #:** 12715-LBA-4-11632

**DRILLING METHOD:** Direct Push

**DATE STARTED:** 5/30/2017

**BOREHOLE DATA**

**WELL DATA**

**DATE FINISHED:** 6/5/2017

**Diameter (in):** 2.25

**Well Diameter (in):** N/A

**DRILLER:** R. Allegrezza

**Total Depth (ft.):** 15

**Total Depth (ft.):** N/A

**LBA INSPECTOR:** M. Donovan

**Depth to Refusal (ft.):** N/A

**Screen Length (ft.):** N/A

**NORTHING (ft):** 196909.301

**Depth to Water (ft.):** N/A

**Depth to Water (ft.):** N/A

**EASTING (ft):** 1007006.500

**Depth to Rock (ft.):** N/A

**Slot Size (in):** N/A

**SURFACE ELEVATION (ft):** N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.

Soil boring was pre-cleared to 6 fbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
	8		ML			<1	Dark yellowish brown (10YR 4/2), Clayey SILT, some coarse to fine Sand, little coarse to fine Gravel, moist.	Sandy Clayey Silt
	10		ML			<1	Dark yellowish brown (10YR 4/2), Clayey SILT, some coarse to fine Sand, trace coarse to fine Gravel, moist.	



Louis Berger

# Drilling Log

Page 3 of 3

**BORING NO.:** SB09

**LOCATION:** Queens, NY

**CLIENT:** New York City Department of Design and Construction

**PROJECT NO.:** 2011040.242.00

**PROJECT:** Replacement of Trunk and Distribution Water Main in Cypress Avenue

**FMS ID#:** QED1023B

**DRILLING CONTRACTOR:** Aquifer Drilling and Testing Inc

**WOL #:** 12715-LBA-4-11632

**DRILLING METHOD:** Direct Push

**DATE STARTED:** 5/30/2017

### BOREHOLE DATA

### WELL DATA

**DATE FINISHED:** 6/5/2017

**Diameter (in):** 2.25

**Well Diameter (in):** N/A

**DRILLER:** R. Allegrrezza

**Total Depth (ft.):** 15

**Total Depth (ft.):** N/A

**LBA INSPECTOR:** M. Donovan

**Depth to Refusal (ft.):** N/A

**Screen Length (ft.):** N/A

**NORTHING (ft):** 196909.301

**Depth to Water (ft.):** N/A

**Depth to Water (ft.):** N/A

**EASTING (ft):** 1007006.500

**Depth to Rock (ft.):** N/A

**Slot Size (in):** N/A

**SURFACE ELEVATION (ft):** N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.

Soil boring was pre-cleared to 6 ftbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
	14		ML			<1	Dark yellowish brown (10YR 4/2), Clayey SILT, some coarse to fine Sand, trace coarse to fine Gravel, moist.	Collected grab sample SB09 from 12.0 to 12.5 ftbg and composite sample SB09 from 0.5 to 12.5 ftbg.
	16						Total Depth of Boring 15 feet.	





# Drilling Log

Page 1 of 3

**BORING NO.:** SB10

**LOCATION:** Queens, NY

**CLIENT:** New York City Department of Design and Construction

**PROJECT NO.:** 2011040.242.00

**PROJECT:** Replacement of Trunk and Distribution Water Main in Cypress Avenue

**FMS ID#:** QED1023B

**DRILLING CONTRACTOR:** Aquifer Drilling and Testing Inc

**WOL #:** 12715-LBA-4-11632

**DRILLING METHOD:** Direct Push

**DATE STARTED:** 5/30/2017

**BOREHOLE DATA**

**WELL DATA**

**DATE FINISHED:** 6/5/2017

**Diameter (in):** 2.25

**Well Diameter (in):** N/A

**DRILLER:** R. Allegrezza

**Total Depth (ft.):** 15

**Total Depth (ft.):** N/A

**LBA INSPECTOR:** M. Donovan

**Depth to Refusal (ft.):** N/A

**Screen Length (ft.):** N/A

**NORTHING (ft):** 196750.279

**Depth to Water (ft.):** N/A

**Depth to Water (ft.):** N/A

**EASTING (ft):** 1007209.598

**Depth to Rock (ft.):** N/A

**Slot Size (in):** N/A

**SURFACE ELEVATION (ft):** N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.

Soil boring was pre-cleared to 6 ftbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
	0		FILL			<1	Dusky yellowish brown (10YR 2/2), coarse to fine SAND, some Clayey Silt, moist.	Clayey Silty Sand (Fill)
	2		FILL			<1	Light brown (5YR 5/6), coarse to fine SAND, some Clayey Silt, moist.	



Louis Berger

# Drilling Log

Page 2 of 3

**BORING NO.:** SB10

**LOCATION:** Queens, NY

**CLIENT:** New York City Department of Design and Construction

**PROJECT NO.:** 2011040.242.00

**PROJECT:** Replacement of Trunk and Distribution Water Main in Cypress Avenue

**FMS ID#:** QED1023B

**DRILLING CONTRACTOR:** Aquifer Drilling and Testing Inc

**WOL #:** 12715-LBA-4-11632

**DRILLING METHOD:** Direct Push

**DATE STARTED:** 5/30/2017

### BOREHOLE DATA

### WELL DATA

**DATE FINISHED:** 6/5/2017

**Diameter (in):** 2.25

**Well Diameter (in):** N/A

**DRILLER:** R. Allegrezza

**Total Depth (ft.):** 15

**Total Depth (ft.):** N/A

**LBA INSPECTOR:** M. Donovan

**Depth to Refusal (ft):** N/A

**Screen Length (ft):** N/A

**NORTHING (ft):** 196750.279

**Depth to Water (ft.):** N/A

**Depth to Water (ft.):** N/A

**EASTING (ft):** 1007209.598

**Depth to Rock (ft.):** N/A

**Slot Size (in):** N/A

**SURFACE ELEVATION (ft):** N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.  
Soil boring was pre-cleared to 6 ftbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
	8		SM			<1	Light brown (5YR 5/6), coarse to fine SAND, some Clayey Silt, little coarse to fine Gravel, moist.	Clayey Silty Sand
	10		SM			<1	Light brown (5YR 5/6), coarse to fine SAND, some Clayey Silt, little coarse to fine Gravel, moist.	



# Drilling Log

Page 3 of 3

**BORING NO.:** SB10

**LOCATION:** Queens, NY

**CLIENT:** New York City Department of Design and Construction

**PROJECT NO.:** 2011040.242.00

**PROJECT:** Replacement of Trunk and Distribution Water Main in Cypress Avenue

**FMS ID#:** QED1023B

**DRILLING CONTRACTOR:** Aquifer Drilling and Testing Inc

**WOL #:** 12715-LBA-4-11632

**DRILLING METHOD:** Direct Push

**DATE STARTED:** 5/30/2017

**BOREHOLE DATA**

**WELL DATA**

**DATE FINISHED:** 6/5/2017

**Diameter (in):** 2.25

**Well Diameter (in):** N/A

**DRILLER:** R. Allegrezza

**Total Depth (ft.):** 15

**Total Depth (ft.):** N/A

**LBA INSPECTOR:** M. Donovan

**Depth to Refusal (ft.):** N/A

**Screen Length (ft.):** N/A

**NORTHING (ft):** 196750.279

**Depth to Water (ft.):** N/A

**Depth to Water (ft.):** N/A

**EASTING (ft):** 1007209.598

**Depth to Rock (ft.):** N/A

**Slot Size (in):** N/A

**SURFACE ELEVATION (ft):** N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.  
Soil boring was pre-cleared to 6 ftbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
	14		SM			△	Light brown (5YR 5/6), coarse to fine SAND, some Clayey Silt, little coarse to fine Gravel, moist.	Collected grab sample SB10 from 12.0 to 12.5 ftbg and composite sample SB10 from 0.5 to 12.5 ftbg.
	16						Total Depth of Boring 15 feet.	



Louis Berger

# Drilling Log

Page 1 of 3

**BORING NO.:** SB11

**LOCATION:** Brooklyn, NY

**CLIENT:** New York City Department of Design and Construction

**PROJECT NO.:** 2011040.242.00

**PROJECT:** Replacement of Trunk and Distribution Water Main in Cypress Avenue

**FMS ID#:** QED1023B

**DRILLING CONTRACTOR:** Aquifer Drilling and Testing Inc

**WOL #:** 12715-LBA-4-11632

**DRILLING METHOD:** Direct Push

**DATE STARTED:** 5/31/2017

### BOREHOLE DATA

### WELL DATA

**DATE FINISHED:** 6/5/2017

**Diameter (in):** 2.25

**Well Diameter (in):** N/A

**DRILLER:** R. Allegrezza

**Total Depth (ft.):** 15

**Total Depth (ft.):** N/A

**LBA INSPECTOR:** M. Donovan

**Depth to Refusal (ft):** N/A

**Screen Length (ft):** N/A

**NORTHING (ft):** 196547.537

**Depth to Water (ft.):** N/A

**Depth to Water (ft.):** N/A

**EASTING (ft):** 1007408.859

**Depth to Rock (ft.):** N/A

**Slot Size (in):** N/A

**SURFACE ELEVATION (ft):** N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.

Soil boring was pre-cleared to 6 ftbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
			FILL			<1	Dusky brown (5YR 2/2), coarse to fine SAND, some Clayey Silt, moist.	Clayey Silty Sand (Fill)
	2		FILL			<1	Dark yellowish orange (10YR 6/6), coarse to fine SAND, little Clayey Silt, little coarse to fine Gravel, moist.	Sand (Fill)
	4							



# Drilling Log

Page 2 of 3

**BORING NO.:** SB11

**LOCATION:** Brooklyn, NY

<b>CLIENT:</b> New York City Department of Design and Construction	<b>PROJECT NO.:</b> 2011040.242.00
<b>PROJECT:</b> Replacement of Trunk and Distribution Water Main in Cypress Avenue	<b>FMS ID#:</b> QED1023B
<b>DRILLING CONTRACTOR:</b> Aquifer Drilling and Testing Inc	<b>WOL #:</b> 12715-LBA-4-11632
<b>DRILLING METHOD:</b> Direct Push	<b>DATE STARTED:</b> 5/31/2017

BOREHOLE DATA		WELL DATA		DATE FINISHED: 6/5/2017	
<b>Diameter (in):</b> 2.25		<b>Well Diameter (in):</b> N/A		<b>DRILLER:</b> R. Allegrezza	
<b>Total Depth (ft.):</b> 15		<b>Total Depth (ft.):</b> N/A		<b>LBA INSPECTOR:</b> M. Donovan	
<b>Depth to Refusal (ft.):</b> N/A		<b>Screen Length (ft.):</b> N/A		<b>NORTHING (ft):</b> 196547.537	
<b>Depth to Water (ft.):</b> N/A		<b>Depth to Water (ft.):</b> N/A		<b>EASTING (ft):</b> 1007408.859	
<b>Depth to Rock (ft.):</b> N/A		<b>Slot Size (in):</b> N/A		<b>SURFACE ELEVATION (ft):</b> N/A	

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.  
Soil boring was pre-cleared to 6 ftbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
	0		SC			<1	Moderate yellowish brown (10YR 5/4), coarse to fine SAND, some Silty Clay, moist.	Silty Clayey Sand
	8							
	10		SM			<1	Moderate yellowish brown (10YR 5/4), coarse to fine SAND, some Clayey Silt, little coarse to fine Gravel, moist.	Clayey Silty Sand; Collected grab sample SB11 from 11.0 to 11.5 ftbg and composite sample SB11 from 0.5 to 11.5 ftbg.
	12							



Louis Berger

# Drilling Log

Page 3 of 3

**BORING NO.:** SB11

**LOCATION:** Brooklyn, NY

**CLIENT:** New York City Department of Design and Construction

**PROJECT NO.:** 2011040.242.00

**PROJECT:** Replacement of Trunk and Distribution Water Main in Cypress Avenue

**FMS ID#:** QED1023B

**DRILLING CONTRACTOR:** Aquifer Drilling and Testing Inc

**WOL #:** 12715-LBA-4-11632

**DRILLING METHOD:** Direct Push

**DATE STARTED:** 5/31/2017

### BOREHOLE DATA

### WELL DATA

**DATE FINISHED:** 6/5/2017

**Diameter (in):** 2.25

**Well Diameter (in):** N/A

**DRILLER:** R. Allegrrezza

**Total Depth (ft.):** 15

**Total Depth (ft.):** N/A

**LBA INSPECTOR:** M. Donovan

**Depth to Refusal (ft.):** N/A

**Screen Length (ft.):** N/A

**NORTHING (ft):** 196547.537

**Depth to Water (ft.):** N/A

**Depth to Water (ft.):** N/A

**EASTING (ft):** 1007408.859

**Depth to Rock (ft.):** N/A

**Slot Size (in):** N/A

**SURFACE ELEVATION (ft):** N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.

Soil boring was pre-cleared to 6 ftbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
	14							
	16						Total Depth of Boring 15 feet.	



Louis Berger

# Drilling Log

Page 1 of 3

**BORING NO.:** SB12

**LOCATION:** Brooklyn, NY

**CLIENT:** New York City Department of Design and Construction

**PROJECT NO.:** 2011040.242.00

**PROJECT:** Replacement of Trunk and Distribution Water Main in Cypress Avenue

**FMS ID#:** QED1023B

**DRILLING CONTRACTOR:** Aquifer Drilling and Testing Inc

**WOL #:** 12715-LBA-4-11632

**DRILLING METHOD:** Direct Push

**DATE STARTED:** 5/31/2017

### BOREHOLE DATA

### WELL DATA

**DATE FINISHED:** 6/5/2017

**Diameter (in):** 2.25

**Well Diameter (in):** N/A

**DRILLER:** R. Allegrezza

**Total Depth (ft.):** 15

**Total Depth (ft.):** N/A

**LBA INSPECTOR:** M. Donovan

**Depth to Refusal (ft.):** N/A

**Screen Length (ft.):** N/A

**NORTHING (ft):** 196409.253

**Depth to Water (ft.):** N/A

**Depth to Water (ft.):** N/A

**EASTING (ft):** 1007577.563

**Depth to Rock (ft.):** N/A

**Slot Size (in):** N/A

**SURFACE ELEVATION (ft):** N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.

Soil boring was pre-cleared to 6 ftbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
			FILL			<1	Dark gray (N3), FILL MATERIAL (slag), moist.	Fill Material
	2		FILL			<1	Dark yellowish orange (10YR 6/6), coarse to fine SAND, some Clayey Silt, trace coarse to fine Gravel, moist.	Clayey Silty Sand (Fill)
	4							



Louis Berger

# Drilling Log

Page 2 of 3

**BORING NO.:** SB12

**LOCATION:** Brooklyn, NY

<b>CLIENT:</b> New York City Department of Design and Construction	<b>PROJECT NO.:</b> 2011040.242.00
<b>PROJECT:</b> Replacement of Trunk and Distribution Water Main in Cypress Avenue	<b>FMS ID#:</b> QED1023B
<b>DRILLING CONTRACTOR:</b> Aquifer Drilling and Testing Inc	<b>WOL #:</b> 12715-LBA-4-11632
<b>DRILLING METHOD:</b> Direct Push	<b>DATE STARTED:</b> 5/31/2017
<b>BOREHOLE DATA</b>	<b>WELL DATA</b>
<b>Diameter (in):</b> 2.25	<b>Well Diameter (in):</b> N/A
<b>Total Depth (ft.):</b> 15	<b>Total Depth (ft.):</b> N/A
<b>Depth to Refusal (ft.):</b> N/A	<b>Screen Length (ft.):</b> N/A
<b>Depth to Water (ft.):</b> N/A	<b>Depth to Water (ft.):</b> N/A
<b>Depth to Rock (ft.):</b> N/A	<b>Slot Size (in):</b> N/A
	<b>DATE FINISHED:</b> 6/5/2017
	<b>DRILLER:</b> R. Allegrrezza
	<b>LBA INSPECTOR:</b> M. Donovan
	<b>NORTHING (ft):</b> 196409.253
	<b>EASTING (ft):</b> 1007577.563
	<b>SURFACE ELEVATION (ft):</b> N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.  
Soil boring was pre-cleared to 6 ftbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
	8		SM			<1	Moderate yellowish brown (10YR 5/4), coarse to fine SAND, some Clayey Silt, moist.	Clayey Silty Sand
	10		SM			<1	Moderate yellowish brown (10YR 5/4), coarse to fine SAND, some Silt, little coarse to fine Gravel, moist.	Silty Sand; Collected grab sample SB12 from 11.5 to 12.0 ftbg and composite sample SB12 from 0.5 to 12.0 ftbg.





Louis Berger

# Drilling Log

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**BORING NO.:** SB12

**LOCATION:** Brooklyn, NY

**CLIENT:** New York City Department of Design and Construction

**PROJECT NO.:** 2011040.242.00

**PROJECT:** Replacement of Trunk and Distribution Water Main in Cypress Avenue

**FMS ID#:** QED1023B

**DRILLING CONTRACTOR:** Aquifer Drilling and Testing Inc

**WOL #:** 12715-LBA-4-11632

**DRILLING METHOD:** Direct Push

**DATE STARTED:** 5/31/2017

### BOREHOLE DATA

### WELL DATA

**DATE FINISHED:** 6/5/2017

**Diameter (in):** 2.25

**Well Diameter (in):** N/A

**DRILLER:** R. Allegrezza

**Total Depth (ft.):** 15

**Total Depth (ft.):** N/A

**LBA INSPECTOR:** M. Donovan

**Depth to Refusal (ft.):** N/A

**Screen Length (ft.):** N/A

**NORTHING (ft):** 196409.253

**Depth to Water (ft.):** N/A

**Depth to Water (ft.):** N/A

**EASTING (ft):** 1007577.563

**Depth to Rock (ft.):** N/A

**Slot Size (in):** N/A

**SURFACE ELEVATION (ft):** N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.

Soil boring was pre-cleared to 6 fbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
	14							
	16						Total Depth of Boring 15 feet.	



Louis Berger

# Drilling Log

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**BORING NO.:** SB13

**LOCATION:** Brooklyn, NY

<b>CLIENT:</b> New York City Department of Design and Construction	<b>PROJECT NO.:</b> 2011040.242.00
<b>PROJECT:</b> Replacement of Trunk and Distribution Water Main in Cypress Avenue	<b>FMS ID#:</b> QED1023B
<b>DRILLING CONTRACTOR:</b> Aquifer Drilling and Testing Inc	<b>WOL #:</b> 12715-LBA-4-11632
<b>DRILLING METHOD:</b> Direct Push	<b>DATE STARTED:</b> 5/31/2017
<b>BOREHOLE DATA</b>	<b>WELL DATA</b>
<b>Diameter (in):</b> 2.25	<b>Well Diameter (in):</b> N/A
<b>Total Depth (ft.):</b> 15	<b>Total Depth (ft.):</b> N/A
<b>Depth to Refusal (ft.):</b> N/A	<b>Screen Length (ft.):</b> N/A
<b>Depth to Water (ft.):</b> N/A	<b>Depth to Water (ft.):</b> N/A
<b>Depth to Rock (ft.):</b> N/A	<b>Slot Size (in):</b> N/A
	<b>DATE FINISHED:</b> 6/5/2017
	<b>DRILLER:</b> R. Allegrezza
	<b>LBA INSPECTOR:</b> M. Donovan
	<b>NORTHING (ft):</b> 196319.379
	<b>EASTING (ft):</b> 1007698.257
	<b>SURFACE ELEVATION (ft):</b> N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.  
Soil boring was pre-cleared to 6 ftbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
	0		FILL			<1	Dusky yellowish brown (10YR 2/2), coarse to fine SAND, little SILT (50% fill material: brick), moist.	Sand (Fill)
	2		FILL			<1	Dark yellowish orange (10YR 6/6), coarse to fine SAND, some Clayey Silt, moist.	Clayey Silty Sand (Fill)
	4							
	6							



Louis Berger

# Drilling Log

Page 2 of 3

**BORING NO.:** SB13

**LOCATION:** Brooklyn, NY

**CLIENT:** New York City Department of Design and Construction

**PROJECT NO.:** 2011040.242.00

**PROJECT:** Replacement of Trunk and Distribution Water Main in Cypress Avenue

**FMS ID#:** QED1023B

**DRILLING CONTRACTOR:** Aquifer Drilling and Testing Inc

**WOL #:** 12715-LBA-4-11632

**DRILLING METHOD:** Direct Push

**DATE STARTED:** 5/31/2017

### BOREHOLE DATA

### WELL DATA

**DATE FINISHED:** 6/5/2017

**Diameter (in):** 2.25

**Well Diameter (in):** N/A

**DRILLER:** R. Allegrezza

**Total Depth (ft.):** 15

**Total Depth (ft.):** N/A

**LBA INSPECTOR:** M. Donovan

**Depth to Refusal (ft.):** N/A

**Screen Length (ft.):** N/A

**NORTHING (ft):** 196319.379

**Depth to Water (ft.):** N/A

**Depth to Water (ft.):** N/A

**EASTING (ft):** 1007698.257

**Depth to Rock (ft.):** N/A

**Slot Size (in):** N/A

**SURFACE ELEVATION (ft):** N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.

Soil boring was pre-cleared to 6 ftbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
	8		SM			<1	Moderate yellowish brown (10YR 5/4), coarse to fine SAND, some Silt, little coarse to fine Gravel, moist.	Silty Sand
	10		SM			<1	Moderate yellowish brown (10YR 5/4), coarse to fine SAND, some Silt, little coarse to fine Gravel, moist.	



Louis Berger

# Drilling Log

Page 3 of 3

**BORING NO.:** SB13

**LOCATION:** Brooklyn, NY

**CLIENT:** New York City Department of Design and Construction  
**PROJECT:** Replacement of Trunk and Distribution Water Main in Cypress Avenue  
**DRILLING CONTRACTOR:** Aquifer Drilling and Testing Inc  
**DRILLING METHOD:** Direct Push

**PROJECT NO.:** 2011040.242.00  
**FMS ID#:** QED1023B  
**WOL #:** 12715-LBA-4-11632  
**DATE STARTED:** 5/31/2017

**BOREHOLE DATA**  
**Diameter (in):** 2.25  
**Total Depth (ft.):** 15  
**Depth to Refusal (ft.):** N/A  
**Depth to Water (ft.):** N/A  
**Depth to Rock (ft.):** N/A

**WELL DATA**  
**Well Diameter (in):** N/A  
**Total Depth (ft.):** N/A  
**Screen Length (ft.):** N/A  
**Depth to Water (ft.):** N/A  
**Slot Size (in):** N/A

**DATE FINISHED:** 6/5/2017  
**DRILLER:** R. Allegrezza  
**LBA INSPECTOR:** M. Donovan  
**NORTHING (ft.):** 196319.379  
**EASTING (ft.):** 1007698.257  
**SURFACE ELEVATION (ft):** N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.  
 Soil boring was pre-cleared to 6 ftbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
	14		SM			<1	Moderate yellowish brown (10YR 5/4), coarse to fine SAND, some Silt, little coarse to fine Gravel, moist.	Collected grab sample SB13 from 14.0 to 14.5 ftbg and composite sample SB13 from 0.5 to 14.5 ftbg.
	16						Total Depth of Boring 15 feet.	



# Drilling Log

Page 1 of 3

**BORING NO.:** SB14

**LOCATION:** Queens, NY

**CLIENT:** New York City Department of Design and Construction

**PROJECT NO.:** 2011040.242.00

**PROJECT:** Replacement of Trunk and Distribution Water Main in Cypress Avenue

**FMS ID#:** QED1023B

**DRILLING CONTRACTOR:** Aquifer Drilling and Testing Inc

**WOL #:** 12715-LBA-4-11632

**DRILLING METHOD:** Direct Push

**DATE STARTED:** 5/31/2017

**BOREHOLE DATA**

**WELL DATA**

**DATE FINISHED:** 6/5/2017

**Diameter (in):** 2.25

**Well Diameter (in):** N/A

**DRILLER:** R. Allegrezza

**Total Depth (ft.):** 15

**Total Depth (ft.):** N/A

**LBA INSPECTOR:** M. Donovan

**Depth to Refusal (ft.):** N/A

**Screen Length (ft.):** N/A

**NORTHING (ft):** 196518.739

**Depth to Water (ft.):** N/A

**Depth to Water (ft.):** N/A

**EASTING (ft):** 1008145.001

**Depth to Rock (ft.):** N/A

**Slot Size (in):** N/A

**SURFACE ELEVATION (ft):** N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.

Soil boring was pre-cleared to 6 ftbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
	0		FILL			<1	Light brown (5YR 5/6), coarse to fine SAND, some Clayey Silt, (5% fill material: slag), moist.	Clayey Silty Sand (Fill)
	2		FILL			<1	Grayish orange (10YR 7/4), coarse to fine SAND, some Clayey Silt, moist.	
	4		FILL			<1	Grayish orange (10YR 7/4), Clayey SILT, little coarse to fine Sand, trace coarse Gravel, moist.	



Louis Berger

# Drilling Log

Page 2 of 3

**BORING NO.:** SB14

**LOCATION:** Queens, NY

**CLIENT:** New York City Department of Design and Construction

**PROJECT NO.:** 2011040.242.00

**PROJECT:** Replacement of Trunk and Distribution Water Main in Cypress Avenue

**FMS ID#:** QED1023B

**DRILLING CONTRACTOR:** Aquifer Drilling and Testing Inc

**WOL #:** 12715-LBA-4-11632

**DRILLING METHOD:** Direct Push

**DATE STARTED:** 5/31/2017

### BOREHOLE DATA

### WELL DATA

**DATE FINISHED:** 6/5/2017

**Diameter (in):** 2.25

**Well Diameter (in):** N/A

**DRILLER:** R. Allegrezza

**Total Depth (ft.):** 15

**Total Depth (ft.):** N/A

**LBA INSPECTOR:** M. Donovan

**Depth to Refusal (ft.):** N/A

**Screen Length (ft.):** N/A

**NORTHING (ft):** 196518.739

**Depth to Water (ft.):** N/A

**Depth to Water (ft.):** N/A

**EASTING (ft):** 1008145.001

**Depth to Rock (ft.):** N/A

**Slot Size (in):** N/A

**SURFACE ELEVATION (ft):** N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.

Soil boring was pre-cleared to 6 ftbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
	8		SM			<1	Light brown (5YR 5/6), coarse to fine SAND, some Clayey Silt, little coarse to fine Gravel, moist.	Clayey Silty Sand
	10		SM			<1	Moderate yellowish brown (10YR 5/4), coarse to fine SAND, little Silt, some coarse to fine Gravel, moist.	Sand



# Drilling Log

Page 3 of 3

**BORING NO.:** SB14

**LOCATION:** Queens, NY

**CLIENT:** New York City Department of Design and Construction

**PROJECT NO.:** 2011040.242.00

**PROJECT:** Replacement of Trunk and Distribution Water Main in Cypress Avenue

**FMS ID#:** QED1023B

**DRILLING CONTRACTOR:** Aquifer Drilling and Testing Inc

**WOL #:** 12715-LBA-4-11632

**DRILLING METHOD:** Direct Push

**DATE STARTED:** 5/31/2017

**BOREHOLE DATA**

**WELL DATA**

**DATE FINISHED:** 6/5/2017

**Diameter (in):** 2.25

**Well Diameter (in):** N/A

**DRILLER:** R. Allegrrezza

**Total Depth (ft.):** 15

**Total Depth (ft.):** N/A

**LBA INSPECTOR:** M. Donovan

**Depth to Refusal (ft.):** N/A

**Screen Length (ft.):** N/A

**NORTHING (ft):** 196518.739

**Depth to Water (ft.):** N/A

**Depth to Water (ft.):** N/A

**EASTING (ft):** 1008145.001

**Depth to Rock (ft.):** N/A

**Slot Size (in):** N/A

**SURFACE ELEVATION (ft):** N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.

Soil boring was pre-cleared to 6 ftbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
	14		SM			Δ	Moderate yellowish brown (10YR 5/4), coarse to fine SAND, little Silt, some coarse to fine Gravel, moist.	Collected grab sample SB14 from 13.5 to 14.0 ftbg and composite sample SB14 from 0.5 to 14.0 ftbg.
	16						Total Depth of Boring 15 feet.	



Louis Berger

# Drilling Log

Page 1 of 3

**BORING NO.:** SB15

**LOCATION:** Queens, NY

**CLIENT:** New York City Department of Design and Construction

**PROJECT NO.:** 2011040.242.00

**PROJECT:** Replacement of Trunk and Distribution Water Main in Cypress Avenue

**FMS ID#:** QED1023B

**DRILLING CONTRACTOR:** Aquifer Drilling and Testing Inc

**WOL #:** 12715-LBA-4-11632

**DRILLING METHOD:** Direct Push

**DATE STARTED:** 5/31/2017

### BOREHOLE DATA

### WELL DATA

**DATE FINISHED:** 6/5/2017

**Diameter (in):** 2.25

**Well Diameter (in):** N/A

**DRILLER:** R. Allegrezza

**Total Depth (ft.):** 15

**Total Depth (ft.):** N/A

**LBA INSPECTOR:** M. Donovan

**Depth to Refusal (ft.):** N/A

**Screen Length (ft.):** N/A

**NORTHING (ft):** 196736.731

**Depth to Water (ft.):** N/A

**Depth to Water (ft.):** N/A










**EASTING (ft):** 1008268.719

**Depth to Rock (ft.):** N/A

**Slot Size (in):** N/A

**SURFACE ELEVATION (ft):** N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.  
Soil boring was pre-cleared to 6 ftbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
	0		FILL			<1	Dusky yellowish brown (10YR 2/2), coarse to fine SAND, some Clayey Silt, little Cobbles, moist.	Clayey Silty Sand (Fill)
	2		FILL			<1	Dark yellowish orange (10YR 6/6), coarse to fine SAND, some Clayey Silt, moist.	
	4							





# Drilling Log

Page 2 of 3

**BORING NO.:** SB15

**LOCATION:** Queens, NY

**CLIENT:** New York City Department of Design and Construction

**PROJECT NO.:** 2011040.242.00

**PROJECT:** Replacement of Trunk and Distribution Water Main in Cypress Avenue

**FMS ID#:** QED1023B

**DRILLING CONTRACTOR:** Aquifer Drilling and Testing Inc

**WOL #:** 12715-LBA-4-11632

**DRILLING METHOD:** Direct Push

**DATE STARTED:** 5/31/2017

**BOREHOLE DATA**

**WELL DATA**

**DATE FINISHED:** 6/5/2017

**Diameter (in):** 2.25

**Well Diameter (in):** N/A

**DRILLER:** R. Allegrezza

**Total Depth (ft.):** 15

**Total Depth (ft.):** N/A

**LBA INSPECTOR:** M. Donovan

**Depth to Refusal (ft.):** N/A

**Screen Length (ft.):** N/A

**NORTHING (ft):** 196736.731

**Depth to Water (ft.):** N/A

**Depth to Water (ft.):** N/A

**EASTING (ft):** 1008268.719

**Depth to Rock (ft.):** N/A

**Slot Size (in):** N/A

**SURFACE ELEVATION (ft):** N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.

Soil boring was pre-cleared to 6 ftbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
	8		SP			<1	Moderate yellowish brown (10YR 5/4), coarse to fine SAND, little Silt, some coarse to fine Gravel, moist.	Gravelly Sand
	10		SP			<1	Moderate yellowish brown (10YR 5/4), coarse to fine SAND, some Silt, some coarse to fine Gravel, moist.	Gravelly Silty Sand



Louis Berger

# Drilling Log

Page 3 of 3

**BORING NO.:** SB15

**LOCATION:** Queens, NY

**CLIENT:** New York City Department of Design and Construction  
**PROJECT:** Replacement of Trunk and Distribution Water Main in Cypress Avenue  
**DRILLING CONTRACTOR:** Aquifer Drilling and Testing Inc  
**DRILLING METHOD:** Direct Push

**PROJECT NO.:** 2011040.242.00  
**FMS ID#:** QED1023B  
**WOL #:** 12715-LBA-4-11632  
**DATE STARTED:** 5/31/2017

**BOREHOLE DATA**  
**Diameter (in):** 2.25  
**Total Depth (ft.):** 15  
**Depth to Refusal (ft.):** N/A  
**Depth to Water (ft.):** N/A  
**Depth to Rock (ft.):** N/A

**WELL DATA**  
**Well Diameter (in):** N/A  
**Total Depth (ft.):** N/A  
**Screen Length (ft.):** N/A  
**Depth to Water (ft.):** N/A  
**Slot Size (in):** N/A

**DATE FINISHED:** 6/5/2017  
**DRILLER:** R. Allegrezza  
**LBA INSPECTOR:** M. Donovan  
**NORTHING (ft):** 196736.731  
**EASTING (ft):** 1008268.719  
**SURFACE ELEVATION (ft):** N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.  
 Soil boring was pre-cleared to 6 ftbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
	14		SP			<1	Moderate yellowish brown (10YR 5/4), coarse to fine SAND, some Silt, some coarse to fine Gravel, moist.	Collected grab sample SB15 from 12.5 to 13.0 ftbg and composite sample SB15 from 0.5 to 13.0 ftbg.
	16						Total Depth of Boring 15 feet.	



# Drilling Log

Page 1 of 2

**BORING NO.:** SB16

**LOCATION:** Queens, NY

**CLIENT:** New York City Department of Design and Construction

**PROJECT NO.:** 2011040.242.00

**PROJECT:** Replacement of Trunk and Distribution Water Main in Cypress Avenue

**FMS ID#:** QED1023B

**DRILLING CONTRACTOR:** Aquifer Drilling and Testing Inc

**WOL #:** 12715-LBA-4-11632

**DRILLING METHOD:** Hand Auger

**DATE STARTED:** 5/31/2017

**BOREHOLE DATA**

**WELL DATA**

**DATE FINISHED:** 6/6/2017

**Diameter (in):** 3.0

**Well Diameter (in):** N/A

**DRILLER:** C. Iodice

**Total Depth (ft.):** 6.5

**Total Depth (ft.):** N/A

**LBA INSPECTOR:** M. Donovan

**Depth to Refusal (ft.):** 6.5

**Screen Length (ft.):** N/A

**NORTHING (ft):** 197243.181

**Depth to Water (ft.):** N/A

**Depth to Water (ft.):** N/A

**EASTING (ft):** 1008665.791

**Depth to Rock (ft.):** N/A

**Slot Size (in):** N/A

**SURFACE ELEVATION (ft):** N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.

Soil boring was pre-cleared to 6 ftbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
			FILL			<1	Dusky yellowish brown (10YR 2/2), coarse to fine SAND, some Clayey Silt, moist.	Clayey Silty Sand (Fill)
	2		FILL			<1	Dark yellowish orange (10YR 6/6), coarse to fine SAND, some Clayey Silt, little Cobble, moist.	



Louis Berger

# Drilling Log

Page 2 of 2

**BORING NO.:** SB16

**LOCATION:** Queens, NY

**CLIENT:** New York City Department of Design and Construction

**PROJECT NO.:** 2011040.242.00

**PROJECT:** Replacement of Trunk and Distribution Water Main in Cypress Avenue

**FMS ID#:** QED1023B

**DRILLING CONTRACTOR:** Aquifer Drilling and Testing Inc

**WOL #:** 12715-LBA-4-11632

**DRILLING METHOD:** Hand Auger

**DATE STARTED:** 5/31/2017

### BOREHOLE DATA

### WELL DATA

**DATE FINISHED:** 6/6/2017

**Diameter (in):** 3.0

**Well Diameter (in):** N/A

**DRILLER:** C. Iodice

**Total Depth (ft.):** 6.5

**Total Depth (ft.):** N/A

**LBA INSPECTOR:** M. Donovan

**Depth to Refusal (ft.):** 6.5

**Screen Length (ft.):** N/A

**NORTHING (ft):** 197243.181

**Depth to Water (ft.):** N/A

**Depth to Water (ft.):** N/A

**EASTING (ft):** 1008665.791

**Depth to Rock (ft.):** N/A

**Slot Size (in):** N/A

**SURFACE ELEVATION (ft):** N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.

Soil boring was pre-cleared to 6 ftbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
			ML			<1	Moderate yellowish brown (10YR 5/4), Clayey SILT, little medium to fine Sand, moist.	Clayey Silt; Collected grab sample SB16 from 6.0 to 6.5 ftbg and composite sample SB16 from 0.5 to 6.5 ftbg.
	8 10						Total Depth of Boring 6.5 feet.	



# Drilling Log

Page 1 of 3

**BORING NO.:** SB17

**LOCATION:** Queens, NY

**CLIENT:** New York City Department of Design and Construction

**PROJECT NO.:** 2011040.242.00

**PROJECT:** Replacement of Trunk and Distribution Water Main in Cypress Avenue

**FMS ID#:** QED1023B

**DRILLING CONTRACTOR:** Aquifer Drilling and Testing Inc

**WOL #:** 12715-LBA-4-11632

**DRILLING METHOD:** Direct Push

**DATE STARTED:** 6/1/2017

**BOREHOLE DATA**

**WELL DATA**

**DATE FINISHED:** 6/6/2017

**Diameter (in):** 2.25

**Well Diameter (in):** N/A

**DRILLER:** C. Iodice

**Total Depth (ft.):** 15

**Total Depth (ft.):** N/A

**LBA INSPECTOR:** M. Donovan

**Depth to Refusal (ft):** N/A

**Screen Length (ft):** N/A

**NORTHING (ft):** 197399.963

**Depth to Water (ft.):** N/A

**Depth to Water (ft.):** N/A

**EASTING (ft):** 1008784.849

**Depth to Rock (ft.):** N/A

**Slot Size (in):** N/A

**SURFACE ELEVATION (ft):** N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.

Soil boring was pre-cleared to 6 fbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
			FILL			<1	Dusky yellowish brown (10YR 2/2), medium to fine SAND, some Clayey Silt, moist.	Clayey Silty Sand (Fill)
	2		FILL			<1	Dark yellowish orange (10YR 6/6), medium to fine SAND, some Silt, moist.	Silty Sand (Fill)
	4							



Louis Berger

# Drilling Log

Page 2 of 3

**BORING NO.:** SB17

**LOCATION:** Queens, NY

**CLIENT:** New York City Department of Design and Construction

**PROJECT NO.:** 2011040.242.00

**PROJECT:** Replacement of Trunk and Distribution Water Main in Cypress Avenue

**FMS ID#:** QED1023B

**DRILLING CONTRACTOR:** Aquifer Drilling and Testing Inc

**WOL #:** 12715-LBA-4-11632

**DRILLING METHOD:** Direct Push

**DATE STARTED:** 6/1/2017

### BOREHOLE DATA

### WELL DATA

**DATE FINISHED:** 6/6/2017

**Diameter (in):** 2.25

**Well Diameter (in):** N/A

**DRILLER:** C. Iodice

**Total Depth (ft.):** 15

**Total Depth (ft.):** N/A

**LBA INSPECTOR:** M. Donovan

**Depth to Refusal (ft.):** N/A

**Screen Length (ft.):** N/A

**NORTHING (ft):** 197399.963

**Depth to Water (ft.):** N/A

**Depth to Water (ft.):** N/A

**EASTING (ft):** 1008784.849

**Depth to Rock (ft.):** N/A

**Slot Size (in):** N/A

**SURFACE ELEVATION (ft):** N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.

Soil boring was pre-cleared to 6 ftbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
	8		SM			<1	Dark yellowish orange (10YR 6/6), medium to fine SAND, some Silt, little coarse to fine Gravel, moist.	Silty Sand
	10		SM			<1	Dark yellowish orange (10YR 6/6), medium to fine SAND, some Clayey Silt, little coarse to fine Gravel, moist.	Clayey Silty Sand



# Drilling Log

Page 3 of 3

**BORING NO.:** SB17

**LOCATION:** Queens, NY

<b>CLIENT:</b> New York City Department of Design and Construction	<b>PROJECT NO.:</b> 2011040.242.00
<b>PROJECT:</b> Replacement of Trunk and Distribution Water Main in Cypress Avenue	<b>FMS ID#:</b> QED1023B
<b>DRILLING CONTRACTOR:</b> Aquifer Drilling and Testing Inc	<b>WOL #:</b> 12715-LBA-4-11632
<b>DRILLING METHOD:</b> Direct Push	<b>DATE STARTED:</b> 6/1/2017
<b>BOREHOLE DATA</b>	<b>WELL DATA</b>
<b>Diameter (in):</b> 2.25	<b>Well Diameter (in):</b> N/A
<b>Total Depth (ft.):</b> 15	<b>Total Depth (ft.):</b> N/A
<b>Depth to Refusal (ft.):</b> N/A	<b>Screen Length (ft.):</b> N/A
<b>Depth to Water (ft.):</b> N/A	<b>Depth to Water (ft.):</b> N/A
<b>Depth to Rock (ft.):</b> N/A	<b>Slot Size (in):</b> N/A
	<b>DRILLER:</b> C. Iodice
	<b>LBA INSPECTOR:</b> M. Donovan
	<b>NORTHING (ft):</b> 197399.963
	<b>EASTING (ft):</b> 1008784.849
	<b>SURFACE ELEVATION (ft):</b> N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.  
Soil boring was pre-cleared to 6 ftbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
	14		SM			<1	Dark yellowish orange (10YR 6/6), medium to fine SAND, some Clayey Silt, little coarse to fine Gravel, moist.	Collected grab sample SB17 from 13.5 to 14.0 ftbg and composite sample SB17 from 0.5 to 14.0 ftbg.
	16						Total Depth of Boring 15 feet.	



Louis Berger

# Drilling Log

Page 1 of 3

**BORING NO.:** SB18

**LOCATION:** Queens, NY

**CLIENT:** New York City Department of Design and Construction

**PROJECT NO.:** 2011040.242.00

**PROJECT:** Replacement of Trunk and Distribution Water Main in Cypress Avenue

**FMS ID#:** QED1023B

**DRILLING CONTRACTOR:** Aquifer Drilling and Testing Inc

**WOL #:** 12715-LBA-4-11632

**DRILLING METHOD:** Direct Push

**DATE STARTED:** 6/1/2017

### BOREHOLE DATA

### WELL DATA

**DATE FINISHED:** 6/6/2017

**Diameter (in):** 2.25

**Well Diameter (in):** N/A

**DRILLER:** C. Iodice

**Total Depth (ft.):** 15

**Total Depth (ft.):** N/A

**LBA INSPECTOR:** M. Donovan

**Depth to Refusal (ft.):** N/A

**Screen Length (ft.):** N/A

**NORTHING (ft):** 197684.727

**Depth to Water (ft.):** N/A

**Depth to Water (ft.):** N/A

**EASTING (ft):** 1009003.028


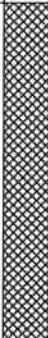




**Depth to Rock (ft.):** N/A

**Slot Size (in):** N/A

**SURFACE ELEVATION (ft):** N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.

Soil boring was pre-cleared to 6 ftbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
			FILL			<1	Dusky yellowish brown (10YR 2/2), coarse to fine SAND, some coarse to fine Gravel, moist.	Gravelly Sand (Fill)
	2		FILL			<1	Dark yellowish orange (10YR 6/6), coarse to fine SAND, some Clayey Silt, little coarse to fine Gravel, moist.	Clayey Silty Sand (Fill)





# Drilling Log

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**BORING NO.:** SB18

**LOCATION:** Queens, NY

**CLIENT:** New York City Department of Design and Construction

**PROJECT NO.:** 2011040.242.00

**PROJECT:** Replacement of Trunk and Distribution Water Main in Cypress Avenue

**FMS ID#:** QED1023B

**DRILLING CONTRACTOR:** Aquifer Drilling and Testing Inc

**WOL #:** 12715-LBA-4-11632

**DRILLING METHOD:** Direct Push

**DATE STARTED:** 6/1/2017

**BOREHOLE DATA**

**WELL DATA**

**DATE FINISHED:** 6/6/2017

**Diameter (in):** 2.25

**Well Diameter (in):** N/A

**DRILLER:** C. Iodice

**Total Depth (ft.):** 15

**Total Depth (ft.):** N/A

**LBA INSPECTOR:** M. Donovan

**Depth to Refusal (ft.):** N/A

**Screen Length (ft.):** N/A

**NORTHING (ft):** 197684.727

**Depth to Water (ft.):** N/A

**Depth to Water (ft.):** N/A

**EASTING (ft):** 1009003.028

**Depth to Rock (ft.):** N/A

**Slot Size (in):** N/A

**SURFACE ELEVATION (ft):** N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.

Soil boring was pre-cleared to 6 fbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
	0		SM			<1	Moderate yellowish brown (10YR 5/4), coarse to fine SAND, some Silt, moist.	Silty Sand
	8		GP			<1	Light gray (N7), coarse to fine GRAVEL, some coarse to fine Sand, moist.	Sandy Gravel
	10		GP			<1	Moderate brown (5YR 3/4), coarse to fine GRAVEL, some coarse to fine Sand, moist.	
	12		SP			<1	Moderate brown (5YR 3/4), coarse to fine SAND, moist.	Sand



# Drilling Log

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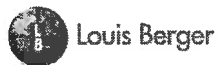
**BORING NO.:** SB18

**LOCATION:** Queens, NY

<b>CLIENT:</b> New York City Department of Design and Construction	<b>PROJECT NO.:</b> 2011040.242.00
<b>PROJECT:</b> Replacement of Trunk and Distribution Water Main in Cypress Avenue	<b>FMS ID#:</b> QED1023B
<b>DRILLING CONTRACTOR:</b> Aquifer Drilling and Testing Inc	<b>WOL #:</b> 12715-LBA-4-11632
<b>DRILLING METHOD:</b> Direct Push	<b>DATE STARTED:</b> 6/1/2017
<b>BOREHOLE DATA</b>	<b>WELL DATA</b>
<b>Diameter (in):</b> 2.25	<b>Well Diameter (in):</b> N/A
<b>Total Depth (ft.):</b> 15	<b>Total Depth (ft.):</b> N/A
<b>Depth to Refusal (ft.):</b> N/A	<b>Screen Length (ft.):</b> N/A
<b>Depth to Water (ft.):</b> N/A	<b>Depth to Water (ft.):</b> N/A
<b>Depth to Rock (ft.):</b> N/A	<b>Slot Size (in):</b> N/A
	<b>DRILLER:</b> C. Iodice
	<b>LBA INSPECTOR:</b> M. Donovan
	<b>NORTHING (ft):</b> 197684.727
	<b>EASTING (ft):</b> 1009003.028
	<b>SURFACE ELEVATION (ft):</b> N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.  
Soil boring was pre-cleared to 6 ftbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
	14		GP			<1	Moderate brown (5YR 3/4), coarse to fine GRAVEL, some coarse to fine Sand, moist.	Sandy Gravel; Collected grab sample SB18 from 12.5 to 13.0 ftbg and composite sample SB18 from 0.5 to 13.0 ftbg.
	16						Total Depth of Boring 15 feet.	



# Drilling Log

Page 1 of 3

**BORING NO.:** SB19

**LOCATION:** Queens, NY

**CLIENT:** New York City Department of Design and Construction

**PROJECT NO.:** 2011040.242.00

**PROJECT:** Replacement of Trunk and Distribution Water Main in Cypress Avenue

**FMS ID#:** QED1023B

**DRILLING CONTRACTOR:** Aquifer Drilling and Testing Inc

**WOL #:** 12715-LBA-4-11632

**DRILLING METHOD:** Direct Push

**DATE STARTED:** 6/1/2017

**BOREHOLE DATA**

**WELL DATA**

**DATE FINISHED:** 6/6/2017

**Diameter (in):** 2.25

**Well Diameter (in):** N/A

**DRILLER:** C. Iodice

**Total Depth (ft.):** 15

**Total Depth (ft.):** N/A

**LBA INSPECTOR:** M. Donovan

**Depth to Refusal (ft.):** N/A

**Screen Length (ft.):** N/A

**NORTHING (ft):** 197968.403

**Depth to Water (ft.):** N/A

**Depth to Water (ft.):** N/A

**EASTING (ft):** 1009224.531

**Depth to Rock (ft.):** N/A

**Slot Size (in):** N/A

**SURFACE ELEVATION (ft):** N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.

Soil boring was pre-cleared to 6 ftbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
			FILL			<1	Dusky yellowish brown (10YR 2/2), coarse to fine SAND, some Clayey Silt, moist.	Clayey Silty Sand (Fill)
	2		FILL			<1	Dark yellowish orange (10YR 6/6), coarse to fine SAND, little Gravel, moist.	Sand (Fill)



Louis Berger

# Drilling Log

Page 2 of 3

**BORING NO.:** SB19

**LOCATION:** Queens, NY

**CLIENT:** New York City Department of Design and Construction

**PROJECT NO.:** 2011040.242.00

**PROJECT:** Replacement of Trunk and Distribution Water Main in Cypress Avenue

**FMS ID#:** QED1023B

**DRILLING CONTRACTOR:** Aquifer Drilling and Testing Inc

**WOL #:** 12715-LBA-4-11632

**DRILLING METHOD:** Direct Push

**DATE STARTED:** 6/1/2017

### BOREHOLE DATA

### WELL DATA

**DATE FINISHED:** 6/6/2017

**Diameter (in):** 2.25

**Well Diameter (in):** N/A

**DRILLER:** C. Iodice

**Total Depth (ft.):** 15

**Total Depth (ft.):** N/A

**LBA INSPECTOR:** M. Donovan

**Depth to Refusal (ft):** N/A

**Screen Length (ft):** N/A

**NORTHING (ft):** 197968.403

**Depth to Water (ft.):** N/A

**Depth to Water (ft.):** N/A

**EASTING (ft):** 1009224.531

**Depth to Rock (ft.):** N/A

**Slot Size (in):** N/A

**SURFACE ELEVATION (ft):** N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.  
Soil boring was pre-cleared to 6 ftbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
	0		CL			<1	Moderate yellowish brown (10YR 5/4), CLAY, little medium to fine Sand, moist.	Clay
	8							
	10		CL			<1	Dark yellowish brown (10YR 4/2), Silty CLAY, some medium to fine Sand, moist.	Sandy Silty Clay
	12							



Louis Berger

# Drilling Log

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**BORING NO.:** SB19

**LOCATION:** Queens, NY

**CLIENT:** New York City Department of Design and Construction

**PROJECT NO.:** 2011040.242.00

**PROJECT:** Replacement of Trunk and Distribution Water Main in Cypress Avenue

**FMS ID#:** QED1023B

**DRILLING CONTRACTOR:** Aquifer Drilling and Testing Inc

**WOL #:** 12715-LBA-4-11632

**DRILLING METHOD:** Direct Push

**DATE STARTED:** 6/1/2017

### BOREHOLE DATA

### WELL DATA

**DATE FINISHED:** 6/6/2017

**Diameter (in):** 2.25

**Well Diameter (in):** N/A

**DRILLER:** C. Iodice

**Total Depth (ft.):** 15

**Total Depth (ft.):** N/A

**LBA INSPECTOR:** M. Donovan

**Depth to Refusal (ft.):** N/A

**Screen Length (ft.):** N/A

**NORTHING (ft):** 197968.403

**Depth to Water (ft.):** N/A

**Depth to Water (ft.):** N/A

**EASTING (ft):** 1009224.531

**Depth to Rock (ft.):** N/A

**Slot Size (in):** N/A

**SURFACE ELEVATION (ft):** N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.

Soil boring was pre-cleared to 6 ftbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
	14		CL			<1	Yellowish gray (5Y 7/2), CLAY, some medium to fine Sand, moist.	Sandy Clay; Collected grab sample SB19 from 13.5 to 14.0 ftbg and composite sample SB19 from 0.5 to 14.0 ftbg.
	16						Total Depth of Boring 15 feet.	



Louis Berger

# Drilling Log

Page 1 of 3

**BORING NO.:** SB20

**LOCATION:** Queens, NY

**CLIENT:** New York City Department of Design and Construction  
**PROJECT:** Replacement of Trunk and Distribution Water Main in Cypress Avenue  
**DRILLING CONTRACTOR:** Aquifer Drilling and Testing Inc  
**DRILLING METHOD:** Direct Push

**PROJECT NO.:** 2011040.242.00  
**FMS ID#:** QED1023B  
**WOL #:** 12715-LBA-4-11632  
**DATE STARTED:** 6/1/2017

**BOREHOLE DATA**  
**Diameter (in):** 2.25  
**Total Depth (ft.):** 15  
**Depth to Refusal (ft.):** N/A  
**Depth to Water (ft.):** N/A  
**Depth to Rock (ft.):** N/A

**WELL DATA**  
**Well Diameter (in):** N/A  
**Total Depth (ft.):** N/A  
**Screen Length (ft.):** N/A  
**Depth to Water (ft.):** N/A  
**Slot Size (in):** N/A

**DATE FINISHED:** 6/6/2017  
**DRILLER:** C. Iodice  
**LBA INSPECTOR:** M. Donovan  
**NORTHING (ft):** 198094.259  
**EASTING (ft):** 1009382.150  
**SURFACE ELEVATION (ft):** N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.  
 Soil boring was pre-cleared to 6 ftbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
	0	CONCRETE				<1	Light gray (N7), CONCRETE, dry.	Concrete
	1	FILL				<1	Dusky yellowish brown (10YR 2/2), medium to fine SAND, some Silt, little coarse to fine Gravel, moist.	Silty Sand (Fill)
	2	FILL				<1	Dark yellowish orange (10YR 6/6), medium to fine SAND, some Silt, little Cobbles, moist.	



Louis Berger

# Drilling Log

Page 2 of 3

**BORING NO.:** SB20

**LOCATION:** Queens, NY

**CLIENT:** New York City Department of Design and Construction

**PROJECT NO.:** 2011040.242.00

**PROJECT:** Replacement of Trunk and Distribution Water Main in Cypress Avenue

**FMS ID#:** QED1023B

**DRILLING CONTRACTOR:** Aquifer Drilling and Testing Inc

**WOL #:** 12715-LBA-4-11632

**DRILLING METHOD:** Direct Push

**DATE STARTED:** 6/1/2017

### BOREHOLE DATA

### WELL DATA

**DATE FINISHED:** 6/6/2017

**Diameter (in):** 2.25

**Well Diameter (in):** N/A

**DRILLER:** C. Iodice

**Total Depth (ft.):** 15

**Total Depth (ft.):** N/A

**LBA INSPECTOR:** M. Donovan

**Depth to Refusal (ft):** N/A

**Screen Length (ft):** N/A

**NORTHING (ft):** 198094.259

**Depth to Water (ft.):** N/A

**Depth to Water (ft.):** N/A

**EASTING (ft):** 1009382.150

**Depth to Rock (ft.):** N/A

**Slot Size (in):** N/A

**SURFACE ELEVATION (ft):** N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.

Soil boring was pre-cleared to 6 fbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
	8		SP			<1	Dark yellowish orange (10YR 6/6), coarse to fine SAND, some coarse to fine Gravel, moist.	Gravelly Sand
	10		SP			<1	Dark yellowish orange (10YR 6/6), coarse to fine SAND, some coarse to fine Gravel, moist.	



Louis Berger

# Drilling Log

Page 3 of 3

**BORING NO.:** SB20

**LOCATION:** Queens, NY

<b>CLIENT:</b> New York City Department of Design and Construction	<b>PROJECT NO.:</b> 2011040.242.00
<b>PROJECT:</b> Replacement of Trunk and Distribution Water Main in Cypress Avenue	<b>FMS ID#:</b> QED1023B
<b>DRILLING CONTRACTOR:</b> Aquifer Drilling and Testing Inc	<b>WOL #:</b> 12715-LBA-4-11632
<b>DRILLING METHOD:</b> Direct Push	<b>DATE STARTED:</b> 6/1/2017
<b>BOREHOLE DATA</b>	<b>WELL DATA</b>
<b>Diameter (in):</b> 2.25	<b>Well Diameter (in):</b> N/A
<b>Total Depth (ft.):</b> 15	<b>Total Depth (ft.):</b> N/A
<b>Depth to Refusal (ft.):</b> N/A	<b>Screen Length (ft.):</b> N/A
<b>Depth to Water (ft.):</b> N/A	<b>Depth to Water (ft.):</b> N/A
<b>Depth to Rock (ft.):</b> N/A	<b>Slot Size (in):</b> N/A
	<b>DRILLER:</b> C. Iodice
	<b>LBA INSPECTOR:</b> M. Donovan
	<b>NORTHING (ft):</b> 198094.259
	<b>EASTING (ft):</b> 1009382.150
	<b>SURFACE ELEVATION (ft):</b> N/A

**NOTES:** Soil description based on Unified Soil Classification System (USCS), Burmister Classification and Munsell Rock Color Chart.  
Soil boring was pre-cleared to 6 ftbg.

Well Construction	Depth (feet)	Lithology	USCS	Sample Interval	Sample Recovery	PID Reading (ppm)	Description and Stratigraphy	Remarks
	14		SP			Δ	Dark yellowish orange (10YR 6/6), coarse to fine SAND, some coarse to fine Gravel, moist.	Collected grab sample SB20 from 13.5 to 14.0 ftbg and composite sample SB20 from 0.5 to 14.0 ftbg.
	16						Total Depth of Boring 15 feet.	



**NO TEXT ON THIS PAGE**

**JB-PAGES (2.0)**

**JOINT BID**

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**NOTICE**

THE PAGES CONTAINED IN THIS JOINT BID (JB-PAGES) REPRESENT ADDITIONAL CONTRACT REQUIREMENTS APPLYING TO WORK PERFORMED IN THE PRESENCE OF PRIVATELY OWNED UTILITY FACILITIES.

JOINT BID

DATED: February 07, 2018

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1. The Contractor shall be responsible for compliance with all the provisions of the following Articles, Appendixes, Specifications, Sketches, and Scope of Work, which are hereby made a part of the original contract documents:
  - A. The “JOINT BID WITH PRIVATE UTILITY COMPANIES SPECIAL PROVISIONS” (Pages JB-1 through JB-4); and the following Utility Company SPECIALTY WORK ITEMS (contained on Pages JB-5 through JB-32):
    - Con Edison:**
      - JB 350- Accommodation of Overhead Utility Facilities, Poles and Appurtenances
      - JB 803- Line Cut by Pneumatic Tools in lieu of Saw Cut associated with Roadway Removal Operations
    - Verizon:**
      - JB350T- Accommodation of Overhead Utility Facilities, Poles and Appurtenances
      - JB402T- Horizontal and Vertical Adjustment of Telecommunications Facilities
      - JB403T- Furnish and Install Steel Protection Plates for Telecommunications Facilities
      - JB405- Excavation for Installation of Utility Facilities
      - JB603T- Furnish and Install Telecommunications Conduits
      - JB636M- Modification of Work Methods to Accommodate Utility Hardware during Pavement Milling and Resurfacing Operations
      - JB798- Modification of Non-Concrete Yoke Trolley Structures Removal when Crossing Utility Facilities
      - JB799- Modification of Non-Concrete Trolley Structures Removal Parallel to Utility Facilities
      - JB803- Line Cut by Pneumatic Tools in lieu of Saw Cut associated with Roadway Removal Operations
  - B. The Private Utilities reference document called “JOINT-BIDDING SPECIFICATIONS AND SKETCHES FOR LOWER MANHATTAN”, dated August 1, 2005, and which 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;
  - C. Private Utility Participating List (Page JB-33)
  - D. Private Utilities Scope of Work (Pages JB-34 through JB-84);
    - CONED Scope of Work (Pages JB-35 through JB-61)
    - VERIZON/ECS Scope of Work (Pages JB-62 through JB-80)
    - CHARTER SPECTRUM Scope of Work (Pages JB-81 through JB-82)
    - NATIONAL GRID Scope of Work (Pages JB-83 through JB-84); and,

Test Pits (Pages JB-85 through JB-117); and, Sketches (Pages JB-118 through JB-121)

E. Private Utility drawings (25 Sheets) consisting of:

- Drawing JB1, General Notes & Conditions (All Utilities) (1 Sheet)
- Drawing JB2, Mass Excavation Plan (CONED) (1 Sheet)
- Drawing JB3 to JB10, Low Tension Mains and Service Plate (CONED) (8 Sheets)
- Drawing JB11 to JB19, Conduit and Duct Occupancy (CONED) (9 Sheets)
- Drawing JB20 to JB24, Existing Facilities Plan (VERIZON/ECS) (5 Sheets)
- Drawing JB25, System Print (CHARTER SPECTRUM/TW) (1 Sheet)

2. Refer to the Private Utility reference document called “JOINT-BIDDING SPECIFICATIONS AND SKETCHES FOR LOWER MANHATTAN”, Specification for JB 450, pages 56, 57, and 58;

Note: Items under JB 450 are task driven operation items and are not based on crew size. These items are divided into three unique types, each of which provides a description of applicability and typical use. The “Method of Measurement”, on page 57, states that “The actual crew performing the operation will not be considered by the facility operator, in consultation with the Resident Engineer, when determining the applicable Unit Item Type, which shall be only as per the task performed.”

3. Refer to the Private Utility reference document called “JOINT-BIDDING SPECIFICATIONS AND SKETCHES FOR LOWER MANHATTAN”, Specification for JB 225, page 10, Article A. Description;

Delete the last four lines of text in their entirety, beginning with the words: “accordance with Specification under Addendum #1, . . .”;

Substitute the following revised text: “accordance with Specification Section 7.18 – Controlled Low Strength Material (CLSM), in the Standard Highway Specification. All backfill within the maximum excavation limits shown in Sketch No. JB 225 shall be of controlled low strength material (CLSM) in compliance with requirements of Section 7.18, and its cost shall be deemed included in this item.”

4. Refer to the Private Utility reference document called “JOINT-BIDDING SPECIFICATIONS AND SKETCHES FOR LOWER MANHATTAN”, Specification for JB 225, page 10, Article B. Materials;

Delete the first sentence in its entirety, beginning with the words: “Furnish Controlled Low Strength Material fill or backfill . . .”;

Substitute the following revised sentence: “Furnish Controlled Low Strength Material fill or backfill as required and specified in Section 7.18 – Controlled Low Strength Material (CLSM), of the Standard Highway Specification.”

5. Refer to the Private Utility reference document called “JOINT-BIDDING SPECIFICATIONS AND SKETCHES FOR LOWER MANHATTAN”, Specification for JB 226, page 12, Article A. Description;

Delete the last five lines of text in their entirety, beginning with the words: “accordance with Specification under Addendum #1, . . .”;

Substitute the following revised text: “accordance with Specification Section 7.18 – Controlled Low Strength Material (CLSM), in the Standard Highway Specification. All backfill within the maximum excavation limits shown in Sketch No. JB 225 shall be of controlled low strength material (CLSM) backfill in compliance with Section 7.18 in the Standard Highway Specifications, and its cost shall be deemed included in this item.”

6. Refer to the Private Utility reference document called “JOINT-BIDDING SPECIFICATIONS AND SKETCHES FOR LOWER MANHATTAN”, Specification for JB 226, page 12, Article B. Materials;  
Delete the first sentence in its entirety, beginning with the words: “Furnish controlled low strength material fill or backfill . . .”;  
Substitute the following revised sentence: “Furnish controlled low strength material fill or backfill as required and specified in Section 7.18 – Controlled Low Strength Material (CLSM), of the Standard Highway Specification.”
7. If the Contractor claims or alleges that delays were caused by a utility for failure to supply and/or provide Specialty Contractors in a timely manner, than the Contractor may bring a claim against the Utility. Neither the Contractor nor the Utility shall bring a delay claim against the City either in a Court of Law or the City’s contract dispute resolution board process; and to the extent the Contractor alleges a delay was caused by a Utility, the Contractor will be limited to bringing such legal action in a Court of Law and will not be able to seek arbitration over any delay claims or delay-related claims. If the Contractor and Utility initiate a legal action against each other, this legal action will be outside the jurisdiction of the City’s contract dispute resolution board process and the City shall not be a party in the litigation process.

**[NO FURTHER TEXT HERE.]**

**Notices to Bidders**

The City is bidding jointly Project ID: QED1023B. The City has combined its Public Work, Interference Work, and Utility Work into one bid contract package. All prospective bidders should be alerted to the fact that the City prepared all specifications, drawings, and all other necessary contract documents for the Public Work, Interference Work, and Utility Work.

The City has prepared contract documents which include specifications, drawings and all other necessary contract documents for the Public Work, Interference Work, and Utility Work. The bid items, specifications, and estimated quantities have been designed to fully compensate the Contractor for its costs to perform the Public Work, Interference Work, and Utility Work.

The Contractor agrees that its bid items and prices for the Public Work, Interference Work, and Utility Work shall include all incremental costs and/ or additional compensation for performing Public Work including: coordination of its work with the Utilities, loss of productivity and efficiency, idle time, delays (including any delays occasioned by negotiation of a contract change), change in operations, mobilization, remobilization, demobilization, added cost or expense, loss of profit, other damages or impact costs that may be suffered by the Contractor because of direct or indirect obstructions due to the presence of Utility Facilities, such as conduits, ducts or duct banks containing conductors for live and/or abandoned electric, telephone, cable TV, any type of communication cables, "Non Cost Sharing" gas mains and services, steam mains, and various non-hazardous encasement materials or utility structures located within the Public Work project area.

In the bid solicitation documents, the City has provided estimates of quantities for both Specific Public Work Items and Specific Utility Work Items. Bidders shall be required to bid a unit price on Items. For the purposes of identifying the lowest responsive and responsible bidder, a bidder's unit prices bid shall be calculated on the City's Specific Public Work Items and estimates and the Utilities' Specific Utility Work Items and estimates.

**[NO FURTHER TEXT HERE.]**

# **CON EDISON SPECIALTY WORK ITEMS**

**JB 350 – ACCOMMODATION OF CON EDISON OVERHEAD UTILITY FACILITIES,  
POLES AND APPURTENANCES**

**A. Description**

Under this section, the Contractor shall provide all supervision, labor, materials, tools, equipment and incidentals required to perform its work in the presence of overhead utilities, including, but not limited to, electric facilities (primary, aerial, secondary and service conductors) fiber optic communications facilities, utility poles and equipment on the poles and related appurtenances. These utilities are subsequently referred to in this specification as "overhead facilities". Tree pruning and removal work under JB 352 and JB 353 as well as utility pole supports under JB 351 are not included in this specification.

**B. Materials – N/A**

**C. Method of Construction**

The Contractor shall inspect the site prior to bidding and shall utilize sketches JB-350A, JB-350B, to evaluate the potential impact, if any, of overhead facilities upon performance of the work. The Contractor shall employ a method of operation, including use of appropriate equipment and tools that will enable him to maintain adequate clearances from the overhead facilities during all phases of construction as directed by the facility operator. The Contractor is responsible for performing the work in accordance with all applicable Federal, New York State and Local regulations. The Contractor and/or his agents shall be solely responsible for damages to any overhead lines and appurtenances due to failure to comply with applicable rules, procedures, and practices.

**D. Method of Measurement**

The quantity to be measured for payment shall be a lump sum measurement to complete the work in the presence of crossing and paralleling overhead facilities.

**Crossing Overhead Facilities**

Overhead crossing encountered during the installation of City facilities. Any and all contractor operations associated with the complete installation of a City facility including final restoration shall be considered as one utility crossing. Multiple stacked overhead lines/conductors in the same vertical space shall be considered as one utility crossing.

**Paralleling Overhead Facilities**

Parallel span between two poles within the project limits encountered during the installation of a City facility that parallels the overhead facilities and requires the Contractor to change its operation in order to maintain adequate clearance as directed by the facility operator and as described in sketch JB 350A and JB 350B. Any and all contractor operations associated with the complete installation of a City facility including final restoration shall be considered as one parallel span. All overhead lines/conductors within a span between two poles shall be considered as one parallel span.



**E. Price to Cover**

The price shall be a lump sum for all supervision, labor, materials, tools, equipment and incidentals required to perform the work in the presence of overhead utilities and to maintain adequate clearance from the overhead facilities during all phases of construction. The price includes, but is not limited, to modification of any methods of operation, use of appropriate equipment, maintenance of traffic, extended performance, loss of productivity, protective measures, delays, change in sequencing and scheduling, breakdown and build up for pile driving equipment (manual and hydraulic) in direct interference with overhead facilities and any other costs that may be incurred by the Contractor.

Partial payments shall be made in proportion to the percentage (%) of contract completion as determined by the facility operator.

**F. Reference Drawings**

JB-350A-1  
JB-350B-1  
JB

**JB 803 - LINE CUT BY PNEUMATIC TOOLS IN LIEU OF SAW CUT ASSOCIATED WITH ROADWAY REMOVAL OPERATIONS**

**A. Description**

Under this section, the Contractor shall provide all incremental labor, equipment, insurance and incidentals required to maintain, protect, support and accommodate the integrity of utility facilities that include but are not limited to oil or static facilities, and any other facilities of various sizes and configurations paralleling or crossing proposed saw cut areas located within a zone of protection associated with roadway removal operations, as determined by the utility operator. Utility facilities which cross under and between the saw cut area are included within this item. The work shall be performed in accordance with the contract plans, the specifications, and as encountered during construction and determined by the facility operator(s).

**B. Materials – N/A**

**C. Method of Construction**

The Contractor shall maintain, protect, support and accommodate the integrity of all utility facilities of various sizes and configurations paralleling or crossing the saw cut area within a zone of protection as determined by the Facility Operator, during the roadway saw cut. The facility operator(s) shall identify the locations of all utilities within the contract area as required by New York State Industrial Code Rule 753. As provided by the Rule, the Contractor shall use pneumatic tools to line cut the pavement in lieu of saw cut by machine. It is the sole discretion of the facility operator(s) to determine relationships and/or dimensions, and advise the Contractor to proceed with pneumatic tools to line cut existing roadway structure.

**D. Method of Measurement**

The quantity to be measured for payment shall be the number of linear feet of line cut performed by pneumatic tools measured along the length of cut. The contract item specified under this section shall not be measured for payment in conjunction with other types of utility items. Modifications to work methods required in areas between zones of protection for multiple utilities or JB facilities shall not be measured for payment and are included in the price bid for this item.

JB 803.1 Line cut Asphalt Roadway (LF)

JB 803.2 Line cut any combination of Asphalt and Concrete Roadway (LF)

JB 803.3 Line cut any combination of Asphalt, Concrete, and Belgium Block (LF)

**E. Price to Cover**

The unit price per linear foot shall include the incremental cost for all labor, equipment, insurance and incidentals required to maintain, protect, support and accommodate the integrity of utility facilities paralleling or crossing the saw cut area associated with the removal of roadway designated for protection of utilities by the facility operator(s).

The unit price shall also include any additional cutting, removing and disposing of roadway materials; and any backfill that may be required to support, protect, maintain and accommodate the integrity of utility facilities. The price shall also include the incremental cost for providing all vehicular and pedestrian traffic maintenance necessary to perform the work.

The Contractor shall be responsible for any and all damages resulting from and/or due to saw cutting operations that are not performed in accordance with the specifications.

**F. References**

1. NYS Industrial Code Rule 753

# VERIZON/ECS SPECIALTY WORK ITEMS

## **JB 350T/TWC – OVERHEAD ACCOMMODATION PROTECTION OF OVERHEAD FACILITIES, POLES AND APPURTENANCES**

### **A. Description**

The Contractor shall provide all supervision, labor, materials, tools, equipment and incidentals required to perform its work in the presence of overhead telephone facilities (JB 350T), cable television facilities (JB 350TWC), including fiber optic communications facilities, utility poles and equipment on the poles and related appurtenances. These utilities are subsequently referred to in this specification as "overhead facilities". Utility pole supports under JB 351 are not included in this specification.

### **B. Materials** – N/A

### **C. Method of Construction**

The Contractor shall inspect the site prior to bidding to evaluate the potential impact, if any, of overhead facilities upon performance of the work. The Contractor shall employ a method of operation, including use of appropriate equipment and tools that will enable him to maintain adequate clearances from the overhead facilities during all phases of construction. The Contractor is responsible for performing the work in accordance with all applicable Federal, New York State and Local regulations. The Contractor and/or his agents shall be solely responsible for damages to any overhead lines and appurtenances due to failure to comply with applicable rules, procedures, and practices.

### **D. Method of Measurement**

The quantity to be measured for payment shall be a lump sum measurement to complete the work in the presence of overhead facilities.

### **E. Price to Cover**

The price shall be a lump sum for all supervision, labor, materials, tools, equipment and incidentals required to perform the work in the presence of overhead utilities and to maintain adequate clearance from the overhead facilities during all phases of construction. The price includes, but is not limited, to modification of any methods of operation, use of appropriate equipment, extended performance, loss of productivity, protective measures, delays, change in sequencing and scheduling, and any other costs that may be incurred by the Contractor. Partial payments shall be made in proportion to the percentage (%) of contract completion as determined by the facility operator in consultation with the Resident Engineer.

The price shall cover the lowering and raising of pile driver boom under Verizon and Time Warner main line cables only. Verizon service wires will be disconnected and reconnected by Verizon for any pile driving operations only. The contractor shall work under the Verizon & Time Warner Cable service wires under all other work operations. The locations of the mainline cables are shown on the attached sketch.

The price shall include disconnecting and reconnecting, by the contractor, the impacted Time Warner service wires for the pile operation.

### **F. References**

N/A

## **JB 402T - HORIZONTAL AND VERTICAL ADJUSTMENT OF TELECOMMUNICATIONS FACILITIES**

### **A. Description**

Under this section, the Contractor shall provide all labor, materials, equipment, insurance and incidentals required to adjust and support and protect and maintain and accommodate the integrity of telecommunication facilities including but not limited to:

1. Conduit(s);
2. Cables and Air Pipe
3. Concrete Encased/Capped Conduit Banks

The work shall be performed in accordance with specifications and at the direction of the facility operator in consultation with the Resident Engineer.

### **B. Materials**

All materials used to adjust and support and protect and maintain and accommodate the integrity of utility facilities shall be similar to those indicated on the standard Sketches JB 100 A & 100 A-1 and shall be supplied by the Contractor and be approved by the facility operator in consultation with the Resident Engineer .

Materials used for replacing conduit(s) removed under this item shall be supplied by and installed by the Contractor and shall include but not be limited to the following:

1. Bends
2. Split and Solid Conduit(s) PVC and Steel
3. Couplings and Adapters PVC, Tile and Steel
4. Straps or plastic ties

PVC conduit and fittings shall be as supplied by American Pipe and Plastics, Type "C" or approved equal.

Steel Pipe and fittings shall conform to ASTM A53 Schedule 40

Tile to PVC adaptors shall be as supplied American U-Tel or approved equal.

### **C. Methods of Construction**

Lengths of "wing-back" shall be determined by the facility operator in consultation with the Resident Engineer. All work performed prior to that approval shall be at the contractors risk.

Methods of construction shall include but not be limited to the following:

- 1 Removal and Support
  - a. Break with hand held power tools, remove and dispose of plain or reinforced concrete encasement.

- b. Break with hand held power tools, remove and dispose of conduit(s) enclosures and conduit that contain conductor(s) and/or cable(s) except steel/iron conduits, inner ducts and 1 ¼" to 1 ½" PVC "quad ducts. Breaking – "ringing and ripping" - of steel/iron conduits belonging to ECS shall be performed by ECS forces only. Contractor shall make safe the work area to accommodate the ECS forces.
- c. Support and protect exposed conduits, cables, innerduct and airpipe as shown in Sketch JB 100A-1 and approved by the facility operator in consultation with the Resident Engineer.
- d. ECS tenants cables may require inspection, testing and encapsulation before they can be shifted. Contractor shall make safe the work area to accommodate these forces. Contractor shall be notified by the facility operator of the ECS tenant requirements before the conduits are broken-out.

2. Adjust or Move Conductor(s) and/or cable(s) and support

- a. Cable shall be relocated horizontally and/or vertically as directed by the facility operator in consultation with the Resident Engineer
- b. Support and protect conductors and/or cables as shown on Sketch # JB 100 A-1 and/or as directed by the facility operator.

3. Replacement, Encasement, Protection and Support

- a. Replace vacant and loaded conduit(s) with solid and/or split conduit(s) and adapters.
  - 1) Vacant Conduit - Repairs to conduits shall not be permitted. All damaged or impaired lengths of conduit(s) shall be removed and replaced with new conduit(s). The number of vacant conduits replaced shall be confirmed by the facility operator.
  - 2) Loaded Conduit - Replacement of conduits that are removed from around existing cable(s) or innerduct shall be accomplished with split plastic (PVC) or split steel conduits as directed by the facility operator. Where split and solid plastic or steel conduit is used, the conduit(s) shall be spaced 1½ inches from each other. All split PVC shall be secured with plastic straps spaced at a maximum distance of eighteen (18") inches. Plastic conduit shall be joined with plastic couplings.
  - 3) Adapting - Joining plastic conduit to existing conduits of other diameters or material shall be done using single or multiple adapters, (supplied by contractor).
- b. If due to subsurface conditions, the cover is less than 20" from finished grade, the duct shall be protected with steel plates furnished by the contractor and measured for payment under Item JB 403T.
- c. Support and protect cable(s) and/or conductor(s) and conduit(s).
- d. Verify vacant conduits and provide pull ropes.

- e. Encase all exposed conduit with concrete ( $f_c = 1200$  to  $1500$  psi maximum) with slump commensurate to completely fill voids around conduits. Concrete encasement shall extend to two (2") inches beyond the limits of the duct bank vertically and horizontally.

#### **D. Method of Measurement**

The quantity to be measured for breaking out conduits, removing concrete, moving, protecting and supporting conductors and replacing conduits with split and solid conduit, shall be paid for by the linear foot (L.F.) of each conduit replaced. A linear foot of conduit shall be defined as one (1) single conduit measured along its longitudinal axis that has been broken out or moved from its original location either horizontally and/or vertically and measured in its final location. Quad PVC ducts produced as one unit shall be consider one duct for each quad unit. All conduits removed and not restored shall be covered for payment under the appropriate bid items for Removal of Abandoned Masonry for Utility Facilities and/or Removal of Abandoned Utility Conduits.

Multiple file duct bank with concrete protection cover is not considered concrete encasement.

Each type of utility adjustment shall be paid for separately, the types of utility adjustments are defined as follows:

JB-402T.1 Existing Concrete Encased Non-Steel/Iron Conduits Placed in Final Position without Concrete Encasement. (L.F.)

JB-402T.1A Existing Concrete Encased Non-Steel/Iron Conduits Placed in Final Position with Concrete Encasement. (L.F.)

JB-402T.2 Existing Non-Concrete Encased Non-Steel/Iron Conduits Placed in Final Position without Concrete Encasement. (L.F.)

JB-402T.2A Existing Non-Concrete Encased Non-Steel/Iron Conduits Placed in Final Position with Concrete Encasement. (L.F.)

JB-402T.R1A Existing Concrete Encased Steel/Iron Conduits Placed in Final Position with Concrete Encasement. (L.F.)

JB-402T.R2A Existing Non-Concrete Encased Steel/Iron Conduits Placed in Final Position with Concrete Encasement. (L.F.)

JB-402T.V1 Existing Vacant Concrete Encased Conduits Placed in Final Position without Concrete Encasement. (L.F.)

JB-402T.V1A Existing Vacant Concrete Encased Conduits Placed in Final Position with Concrete Encasement. (L.F.)

JB-402T.V2 Existing Vacant Non-Concrete Encased Conduits Placed in Final Position without Concrete Encasement. (L.F.)



JB-402T.V2A Existing Vacant Non-Concrete Encased Conduits Placed in Final Position with Concrete Encasement. (L.F.)

JB-402T.J1 Existing Concrete Encased Conduits Placed in Final Position without Concrete Encasement. (L.F.) in Which Only Conduit Joints are Broken Out and Conduits Remain Intact.

JB-402T.J1A Existing Concrete Encased Conduits Placed in Final Position with Concrete Encasement. (L.F.) in Which Only Conduit Joints are Broken Out and Conduits Remain Intact.

JB-402T.J2 Existing Non-Concrete Encased Conduits Placed in Final Position without Concrete Encasement. (L.F.) in Which Only Conduit Joints are Broken Out and Conduits Remain Intact.

JB-402T.J2A Existing Non-Concrete Encased Conduits Placed in Final Position with Concrete Encasement. (L.F.) in Which Only Conduit Joints are Broken Out and Conduits Remain Intact.

#### **E. Price to Cover**

The unit price bid per linear foot (L.F.) of conduit shall cover the cost of all labor, material, equipment, insurance, and incidentals necessary to shift, adjust, support, protect, maintain and accommodate the integrity of utilities without disruption of service to the facility operator's customers and in accordance with contract documents. The price bid shall also include the cost of: breaking out, removal and disposal of plain or reinforced concrete encasements, replacement with field split, split and solid conduits, adapters, clamps, straps and couplings ; verify vacant conduits and provide pull ropes; furnish and install concrete encasement, supports, slings and beams for utility support; changes of sheeting method and/or configuration when required and where necessary to accommodate the utilities during all phases of contract work;; and removal of sheeting around the utilities, and all else necessary and required to complete the work.

The unit price shall include providing access to the facility operator tenants to verify and test cables before, during and after the pipe ripping operation completed by the facility operator or specialized contractor hired by the facility operator and after conduit removal by the Contractor The unit price shall include, but not limited to, opening and closing of fences; removal and replacement of temporary timber curb and opening and closing of traffic plates. Access to adjacent manholes impacted by the run is included in this item. JB 450 shall not be used in conjunction with JB-402T as these items cover access to the work site at all times.

#### **F. References**

1. Sketches JB 100A and 100A-1
2. JB 403T
3. American Pipe and Plastics, P.O. Box 577, Binghamton, N.Y. 13902
4. American U-Tel, 9760 Smith Rd., Willoughby, Ohio 44094

**JB 403T – FURNISH AND INSTALL STEEL PROTECTION PLATES FOR TELECOMMUNICATIONS FACILITIES**

**A. Description**

Under this section, the Contractor shall furnish and install as required permanent steel protection plates over telecommunications facilities where directed by the facility operator(s).

**B. Materials**

Material shall be:

1/4" thick ASTM A-36 plates. Maximum size 24" by 48".

3/8" thick ASTM A-36 plates. Maximum size 12" by 18".

Thickness to be determined by the facility operator(s)

**C. Method of Construction**

Steel protection plates shall be placed in accordance with the attached facility operator(s) standard sketch JB 403T. All protective plates shall overlap a minimum of 3".

**D. Method of Measurement**

The quantity for payment shall be the area of permanent steel plating protection furnished and installed (excluding overlap) and measured in place in Square Feet (S.F.).

JB 403T.1 – Furnish and Install 1/4" thick steel plate (S.F.)

JB 403T.2 – Furnish and Install 3/8" thick steel plate (S.F.)

**E. Price to Cover**

The price shall cover the cost of all labor, material, equipment, insurance, and incidentals necessary to complete the work.

**F. References**

Sketch JB 403T

## **JB 405 - EXCAVATION FOR INSTALLATION OF UTILITY FACILITIES**

### **A. Description**

Under this section, the Contractor shall provide all labor, materials, equipment, insurance and incidentals necessary to excavate, maintain trenches and backfill for the installation of new utility facilities including but not limited to:

1. Conduits
2. Non-cost sharing gas facilities
3. Steam mains
4. Steel pipe(s)

The trench to be excavated shall be determined by the size of the utility facility to be installed. The work shall be performed in accordance with applicable specifications, at the direction of the facility operator.

### **B. Materials**

All materials used to excavate and prepare trenches shall be supplied by the Contractor and be approved by the facility operator.

### **C. Methods of Construction**

1. **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. 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 a nominal cover as defined in the specifications for the facility being installed over the new utility facilities or as required based on field conditions, applicable specifications, or as directed by the facility operator. The width of the trench shall be as directed by the facility operator or as shown on Sketch JB 603T (ECS only). The bottom of the trench shall be graded smooth with a minimum cushion of 3 inches of backfill material or in conformance with applicable specification and be compacted, to minimize initial settlement and to avoid "point" support of new utility facilities. All stones projecting into the trench bottom shall be removed, and the voids backfilled before the new utility 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. Trenches shall be excavated to a depth and size necessary to facilitate the installation of the new utility 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. 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.

Care shall be taken that no existing utility facilities or other structures are broken or damaged. Contractor shall excavate all material encountered necessary to facilitate the installation of the new utility 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.

2. 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, 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. 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 to facilitate the installation of the new utility facility. 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. Upon completion of installation of the new utility 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.

3. 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.

#### **D. Method of Measurement**

The quantity to be measured for payment shall be the number of cubic yards (C.Y.) of trench actually excavated and backfilled as directed by the facility operator or as shown on Sketch JB 603T for JB 603T Items. The volume occupied by existing pipes or other structures will not be deducted from the total volume measured.

JB 405.1 - Trench Excavations for installation of Utility Facilities with total depths less than five feet (C.Y.)

JB 405.2 - Trench Excavations for Utility Facilities with total depths equal to or greater than five feet (C.Y.)

#### **E. Price to Cover**

The unit price bid for the various trench excavation items shall include the cost of all labor, materials, equipment, insurance, and incidentals necessary to completely expose, protect and maintain the integrity of the facilities without disruption of service to the customers and in accordance with the contract documents. The price shall also include, installation of traffic plates as well as opening and closing of plates as may be required in order to provide access to trench; installation, removal and maintenance of tight sheeting as required; cutting, breaking and removing various thickness of surface and base pavement; excavation by hand to expose

existing structures; furnishing, placing and compacting clean backfill following installation of utility facility in compliance with DOT requirements. 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 paid under city items. The price shall also include the cost of locating and protecting all utilities encountered as required.

Clean backfill material in accordance with specifications shall be used around gas facilities and critical facilities shall be paid for under item JB 303.

**F. References**

1. Item JB 303
2. Sketch JB603T
3. Con Edison Specifications, latest revisions  
CEHSP S13.00 – Excavation and Trenching

## **JB 603T - FURNISH AND INSTALL TELECOMMUNICATIONS CONDUITS**

### **A. Description**

Under this Section, the Contractor shall provide all labor, materials, equipment, insurance, and incidentals required to procure and install conduit for the purpose of installing the facility operator's utilities. Conduit runs shall be as shown on the contract drawings or as specified by the facility operator in consultation with the Resident Engineer.

### **B. Materials**

Conduit shall consist of:

PVC – 2" and 4" diameter or 1 ¼" Quad, Type "C" as supplied by American Pipe and Plastics or approved equal

Steel - 4" diameter, ASTM A53, Schedule 40 or approved equal

All conduit including sleeves, couplings, bends, pulling lines, etc. shall be supplied by the Contractor and approved by the facility operator in consultation with the resident Engineer.

The Contractor shall supply all material (Mortar, Brick, etc.) to make repairs to opening(s) as approved by the facility operator in consultation with the Resident Engineer.

### **C. Method of Construction**

The Contractor shall install the specified conduit(s) then rod, mandrel and wire (install pulling line) the new conduits. When conduit pipes are to be connected to existing underground ducts, manholes, or boxes, the Contractor, using hand-held tools only, shall cut existing conduit, to pick-up existing underground conduits with new conduits, make openings into manholes or boxes, install/connect the conduit, and make repairs to seal the openings in the structure.

Steel pipe shall be used for shallow cover and crossing or paralleling steam mains as directed by the facility operator in consultation with the Resident Engineer.

When the facility operator required a combination of conduit types and materials the facility operator will define the configuration of the conduit system and the location of each type within the conduit bank. All conduit shall be spaced 1 ½" both vertically and horizontally from the adjacent conduit(s). All conduits shall be encased in lean concrete ( $f'c = 1200$  to  $1500$  psi maximum) which shall extend 2" beyond each face of the conduit formation, above and each side of the conduit formation.

If due to subsurface conditions, the cover is less than 20" from finished grade, the duct shall be protected with steel plates furnished by the facility operator(s) and measured for payment under Item JB 403.

The work shall be performed in accordance with the contract plans, specifications, and at the directions of the facility operator in consultation with the Resident Engineer.

#### **D. Methods of Measurement**

The quantity to be measured for payment shall be the number of linear feet (LF) of conduit trench for which conduit was furnished and installed:

1. 603T.1 - Install 1 ea. 2", 4" or 1 ¼" Quad" Conduit (PVC or Steel) in any combination
2. 603T.2 - Install 2 ea. 2", 4" or 1 ¼" Quad Conduits (PVC or Steel) in any combination
3. 603T.3 - Install 4 ea. 4" or 1 ¼" Quad Conduits (PVC or Steel) in any combination
4. 603T.4 - Install 6 ea. 4" or 1 ¼" Quad Conduits (PVC or Steel) in any combination
5. 603T.5 - Install 8 ea. 4" or 1 ¼" Quad Conduits (PVC or Steel) in any combination
6. 603T.6 - Install 12 ea. 4" or 1 ¼" Quad Conduits (PVC or Steel) in any combination
7. 603T.7 - Install 15 ea. 4" or 1 ¼" Quad Conduits (PVC or Steel) in any combination
8. 603T.8 - Install 24 ea. 4" or 1 ¼" Quad Conduits (PVC or Steel) in any combination
9. 603T.9 - Install 30 ea. 4" or 1 ¼" Quad Conduits (PVC or Steel) in any combination

A Quad, consisting of four 1 ¼" conduits shall be supplied as one unit. For purposes of measurement and payment each quad unit of four 1 ¼" ducts shall be counted as one duct.

For any equivalent combination not fitting the above categories payment shall be based on the next higher category.

#### **E. Price to Cover**

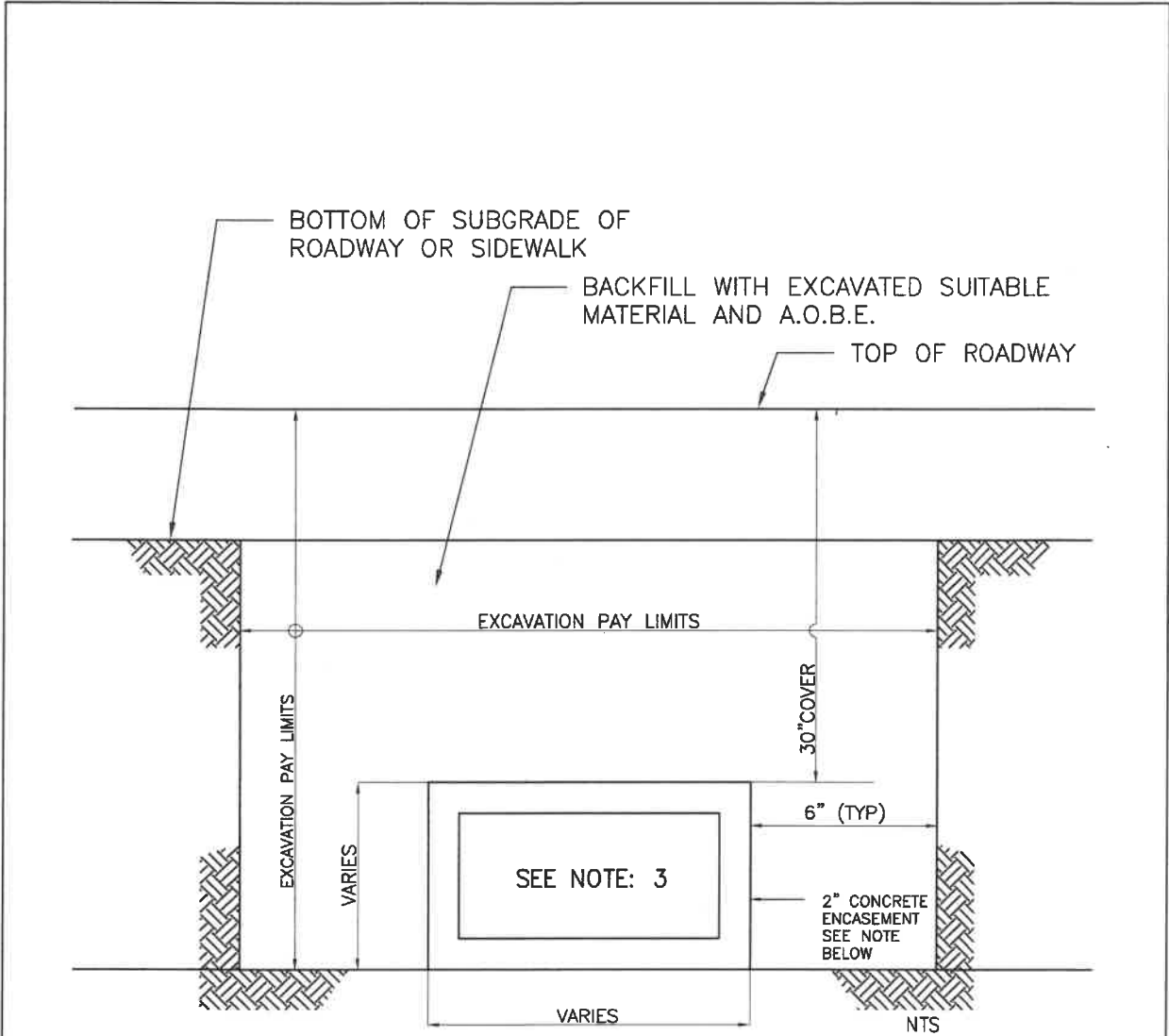
The unit price per linear foot of Conduit trench shall cover the cost of all labor, materials, equipment, insurance and incidentals necessary to furnish, install, rod, rope, and perform any other associated work required to install the conduit completely in place. Where conduits are to be connected to ducts, manholes or boxes, the cost of cutting and/or breaking into the ducts, manholes or boxes, installing and sealing the conduit, including duct plugs; and making repairs to the openings in the structure shall be considered as included in the unit price bid for the installation of the conduit. All acceptance testing, including passing a mandrill with a diameter of 1/8" less than the inside diameter of the duct through the entire length of the duct, as required by the facility operator shall be considered as included in the unit price.

Payment for trench excavation shall be paid under Item JB 405.

Steel protection plates shall be paid for under Item JB 403T

#### **F. References**

1. Sketch JB 603T
2. Item JB 405
3. American Pipe and Plastics, P.O. Box 577, Binghamton, N.Y. 13902



**TYPICAL CONDUIT EXCAVATION AND BACKFILL**

NOTES:

**QUEENS, BROOKLYN & STATEN ISLAND**

1- CONCRETE ENCASE REQUIRED IF TOP OF DUCTS IS 20" OR LESS FROM SURFACE AND ALL BENDS, SWEEPS AND CHANGE OF GRADE. FOR COVER LESS THAN 20", 3/8" STEEL (A36M) COVER PLATES IN ADDITION TO THE CONCRETE ENCASEMENT SHALL BE PROVIDED.

**MANHATTAN & BRONX,**

2- FOR COVER LESS THAN 20", 1/4" STEEL (A36M) COVER COVER PLATES IN ADDITION TO THE CONCRETE ENCASEMENT SHALL BE PROVIDED.

3- CONDUIT CONFIGURATION TO BE DETERMINED BY ECS/VERIZON REPRESENTATIVE.

J.B. SKETCH	
TRENCH EXCAVATION FOR CONDUIT	
09/13/2017	CONTRACT NO. SKETCH NO. JB 603T



**JB 636 M - MODIFICATION OF WORK METHODS TO ACCOMMODATE UTILITY  
HARDWARE DURING PAVEMENT MILLING AND RESURFACING OPERATIONS**

**A. Description**

Under this section, the Contractor shall provide all labor, materials, equipment, insurance, and incidentals required to maintain, protect, and accommodate the integrity of utility hardware during pavement milling and resurfacing operations. Hardware includes castings, frames, and covers on utility structures, valve box cover castings, concrete collars around steam castings, and all other hardware protecting utility facilities.

**B. Materials – N/A**

**C. Method of Construction**

Removal of existing pavement around utility hardware shall be performed by the Contractor with extreme caution by utilizing appropriate methods of operation, by employing specialized construction equipment, and by special operations and sequencing.

The Contractor shall not mill existing pavement within 12" of the perimeter of utility hardware. Removal of pavement within 12" of the perimeter of utility hardware shall be by cutting with pavement breakers or other methods as proposed by the Contractor. All methods shall be presented to the facility operator and the Resident Engineer by the Contractor prior to the start of construction and shall be approved by the facility operator in consultation with the Resident Engineer.

During removal of existing pavement and for the duration of project, the Contractor shall protect utility hardware from damage by the Contractor's operations and traffic. Contractor shall also provide all necessary protection to pedestrians to prevent injury to pedestrians when crossing utility hardware during the project. Utility street hardware damaged by the Contractor or others during the project shall be replaced by the Contractor at Contractor's expense.

The Contractor shall not place any paving materials over utility hardware during the project and shall maintain free and unobstructed access to all structures at all times. The contractor shall maintain all covers free of debris and protect the covers, if necessary, from residue that results from the paving operation.

**D. Method of Measurement**

The quantity to be measured for payment shall be the number of utility hardware units (ea) in each size group actually adjusted as specified under each item. The size of each hardware unit, measured in width, shall be defined as either, the diameter of the exposed edge of the casting, the exposed edge of elliptical castings measured along the major axis, or the exposed edge of the longest side of rectangular frames.

Item 636 MA – Modification of Work Methods to Accommodate Utility Hardware  
(Under 7" Width)

Item 636 MB – Modification of Work Methods to Accommodate Utility Hardware  
(7" to under 14" Width)

Item 636 MC – Modification of Work Methods to Accommodate Utility Hardware  
(14" to under 30" Width)

Item 636 MD – Modification of Work Methods to Accommodate Utility Hardware  
(30" to under 34" Width)

Item 636 ME – Modification of Work Methods to Accommodate Utility Hardware  
(34" to under 41" Width)

Item 636 MG – Modification of Work Methods to Accommodate Utility Hardware  
(41" to under 75" Width)

Item 636 MH – Modification of Work Methods to Accommodate Utility Hardware  
(75" to under 125" Width)

Item 636 MI – Modification of Work Methods to Accommodate Utility Hardware  
(125" to under 170" Width)

Item 636 SMB – Modification of Work Methods to Accommodate Utility Steam  
Hardware (Under and including 8" Width)

Item 636 SMC – Modification of Work Methods to Accommodate Utility Steam  
Hardware (Above 8" to 34" Width)

**A. Price to Cover**

The price to modify work methods to accommodate Utility Hardware during pavement milling and resurfacing operations shall include the cost of all incremental labor, materials, time, equipment, insurance and incidentals required for removal and disposal of existing pavement, installation and compaction of base and wearing course materials, installation and compaction and removal of temporary asphalt concrete mixture, tack coating; in accordance with the plans, the specifications and the directions of the facility operator in consultation with the Resident Engineer. The price to cover shall further include the cost of maintaining, protecting, and accommodating the integrity of utility street hardware during the project and during the performance of milling and resurfacing and the incremental additional work and effort made necessary to protect pedestrians from injury when crossing utility hardware during the project. The price to cover shall further include additional areas of modification of work methods beyond 12" of the perimeter of the utility street hardware due to the milling equipment and the location of other utility hardware, city street hardware, utility poles, street lights, traffic signals, curbs, sidewalks, medians, guide rails, pavement stops, cobblestones, and pavers. The price to cover for Items 636 SMB and 636 SMC shall also include modification of work methods due to existing concrete collars surrounding these castings.

Payment for all work herein specified shall be made on a one-time basis only; no payment for work herein specified shall be made for the same area more than one time. Adjustment to utility hardware shall be paid for under the appropriate JB 636E item.

**F. References**

**JB 798 - MODIFICATION OF NON CONCRETE YOKE TROLLEY STRUCTURES  
REMOVAL WHEN CROSSING UTILITY FACILITES**

**A. Description**

This JB item shall only be applied to trolley structure systems that do not contain concrete yoke foundations. This JB item shall only be used for trolley systems that have rails and wood ties only.

Under this section, the Contractor shall provide all incremental labor, equipment, insurance and incidentals required to maintain and protect and accommodate the integrity of utility facilities that include but are not limited to:

1. Conduits;
2. Conductors;
3. Concrete encased Conduit banks;
4. Steel Pipes; Steam Facilities;
5. Oil-o-static Facilities;
6. Non-cost Sharing Gas Facilities;
7. Steam Facilities;

of various sizes and configurations crossing trolley structures at various angles located within a zone of protection, as indicated on Sketch JB 798, during the removal of trolley structures and subsequent backfilling operations. Utility facilities that run parallel to trolley structures are not included within this item and will be paid for under the appropriate JB item. The work shall be performed in accordance with the contract plans, the specifications, and as encountered during construction and directed by the facility operator.

**B. Materials – N/A**

**C. Method of Construction**

The Contractor shall maintain, protect, and accommodate the integrity of all utility facilities of various sizes and configurations crossing trolley structures within a zone of protection as indicated in Sketch JB 798, during removal of trolley structures and subsequent backfilling and compaction operations under other contract item(s). The facility operator shall identify the locations of all utilities within the contract area as required by New York State Industrial Code Rule 753. As provided by the Rule, the Contractor shall use hand excavation methods (pick and shovel or hand held power tools) directly below the pavement base to expose the utility and ascertain the numerical relationships and/or dimensions of these utilities with respect to the proposed excavation. Contractor shall perform test pits at locations determined by the facility operator to expose utility as specified in JB 400. Upon exposing the affected utilities sufficiently, and at the sole discretion of the facility operator to determine relationships and/or dimensions, the Contractor shall be permitted to proceed with care to remove existing trolley structure within the zone of protection whose limit shall be defined as a distance of 24 inches from the outside face of each utility crossing.

**D. Method of Measurement**

The quantity to be measured for payment shall be the number of linear feet of modified trolley structure removal within the zone of protection as indicated on JB Sketch 798, measured along the centerline of trench. The trench is defined as one track set containing two rails. The zone of protection shall be defined, for the purpose of this agreement, as the boundary/area designated on the plans or a boundary/area 24 inches to either side of each of the designated facilities, based upon available records and/or information obtained from prior or new test pits, or any combination thereof. Where overlapping of the zones occurs due to multiple facilities, the boundary/area shall be modified to one zone measured from the outside limits. The contract item specified under this section shall not be measured for payment in conjunction with other types of utility items. Modifications to work methods required in areas between zones of protection for multiple utilities or JB facilities shall not be measured for payment and are included in the price bid for this item.

**E. Price to Cover**

The unit price per linear foot shall include the incremental cost for all labor, equipment, insurance and incidentals required to maintain and protect and accommodate the integrity of utility facilities during the removal of trolley structures (including rails, timber ties, trolley conduits and main conduit), and backfilling and compacting within a zoned area designated for protection of utilities by the facility operator.

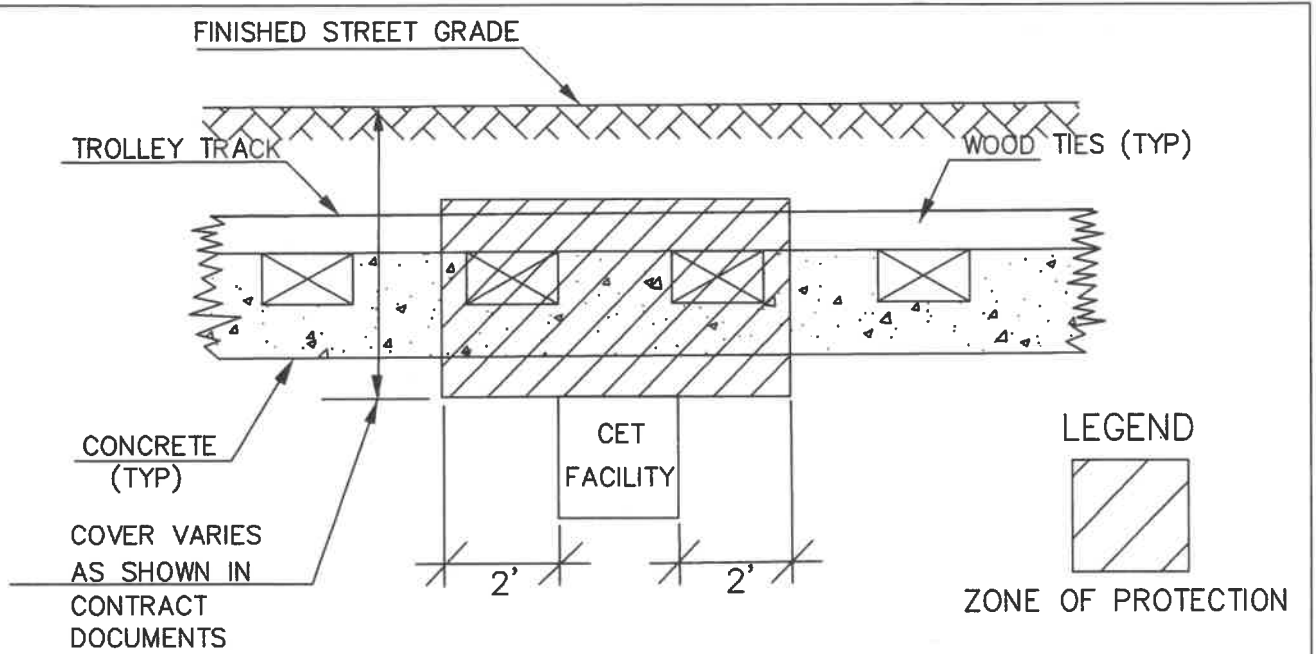
The price shall include any additional cutting, removing and disposing of roadway materials; hand or machine excavation; trucking and disposing of excavated materials, installation and removal of sheeting; and furnishing, installing and compacting backfill that may be required to support, protect, maintain and accommodate the integrity of utility facilities. The price shall also include means to ascertain the numerical relationship between utility and the trolley structure and the incremental cost for providing all vehicular and pedestrian traffic maintenance necessary to perform the work.

The Contractor shall be responsible for any and all damages resulting from and/or due to trolley demolition operations that are not performed in accordance with the specifications.

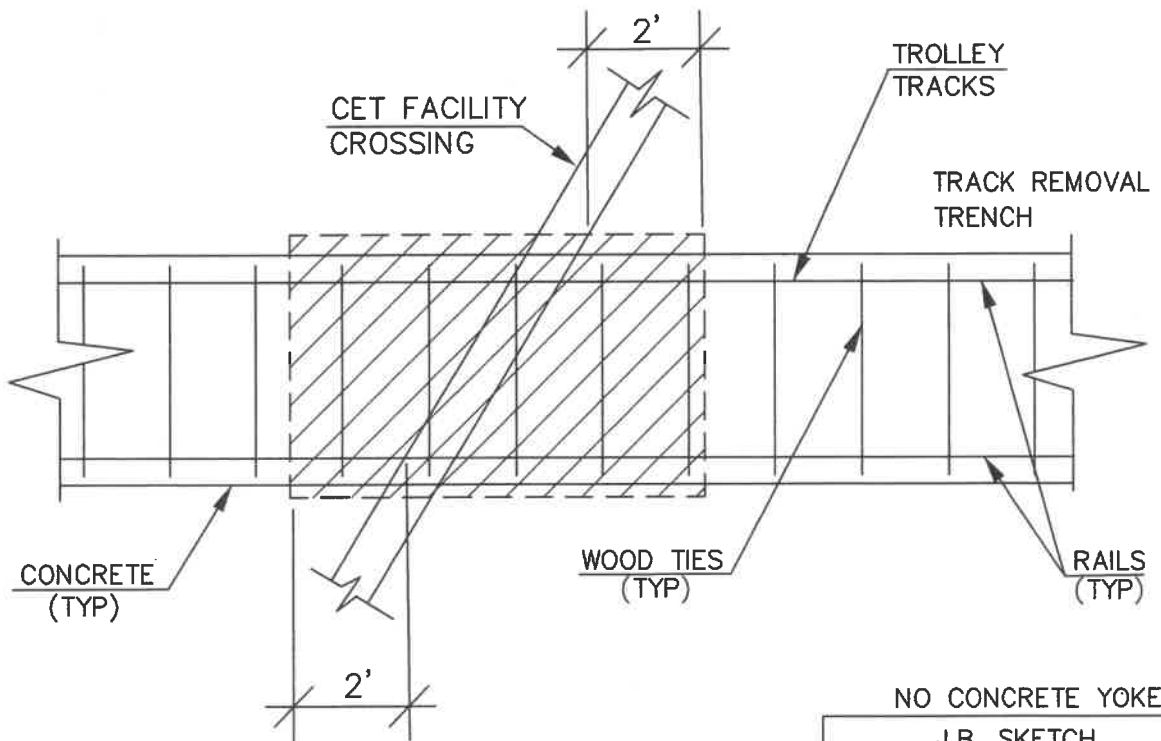
When this work is performed within a mass excavation area, a credit will be taken for the removed trolley structure.

**F. References**

1. NYS Industrial Code Rule 753
2. Sketch JB 798



SECTION OF CET FACILITIES CROSSING TROLLEY TRACKS



PLAN OF CET FACILITIES CROSSING TROLLEY TRACKS

NO CONCRETE YOKE	
J.B. SKETCH	
CET ACCOMODATION SECTIONS CROSSING TROLLEY RAILROAD STRUCTURES	
REVISIONS	CONTRACT NO.
09/13/2017	SKETCH NO. JB 798

**JB 799 - MODIFICATION OF NON CONCRETE TROLLEY STRUCTURES  
REMOVAL PARALLEL TO UTILITY FACILITIES**

**A. Description**

This JB item shall only be applied to trolley structure systems that do not contain concrete yoke foundations. This JB item shall only be used for trolley systems that have rails and wood ties only.

Under this section, the Contractor shall provide all incremental labor, equipment, insurance and incidentals required to maintain, protect, support and accommodate the integrity of utility facilities that include but are not limited to:

1. Conduits;
2. Conductors;
3. Concrete encased Conduit banks;
4. Steel Pipes; Steam Facilities;
5. Oil-o-static Facilities; and
6. Non-cost Sharing Gas Facilities;
7. Steam Facilities.

of various sizes and configurations paralleling or encroaching trolley structures located within a zone of protection, as indicated on the Plans or as directed by the field representative, during all trolley structure removal operations and subsequent backfilling operations. Utility facilities which cross over, under and between the trolley structures are not included within this item and will be paid for under the appropriate JB item. The work shall be performed in accordance with the contract plans, the specifications, and as encountered during construction and directed by the facility operator(s).

**B. Materials – N/A**

**C. Method of Construction**

The Contractor shall maintain, protect, support and accommodate the integrity of all utility facilities of various sizes and configurations paralleling or encroaching trolley structures within a zone of protection as indicated on the Plans or as directed by the field representative, during removal of trolley structures and subsequent backfilling and compaction operations under other contract item(s). The facility operator(s) shall identify the locations of all utilities within the contract area as required by New York State Industrial Code Rule 753. As provided by the Rule, the Contractor shall use hand excavation methods (pick and shovel or hand held power tools) directly below the pavement base to expose the utility and ascertain the numerical relationships and/or dimensions of these utilities with respect to the proposed excavation. Contractor shall perform test pits at locations determined by the facility operator to expose utility as specified in JB 400. Upon exposing the affected utilities sufficiently, and at the sole discretion of the facility operator(s) to determine relationships and/or dimensions, the Contractor shall be permitted to proceed with care to remove existing trolley structure within the zone of protection whose limit shall be defined as a distance of 24 inches from the outside face of each utility to the edge of the trolley structure.

**D. Method of Measurement**

The quantity to be measured for payment shall be the number of linear feet of modified trolley structure removal within the zone of protection as indicated on the plans, measured along the centerline of trench. The trench is defined as one track set containing two rails. The contract item specified under this section shall not be measured for payment in conjunction with other types of utility items. Modifications to work methods required in areas between zones of protection for multiple utilities or JB facilities shall not be measured for payment and are included in the price bid for this item.

**E. Price to Cover**

The unit price per linear foot shall include the incremental cost for all labor, equipment, insurance and incidentals required to maintain, protect, support and accommodate the integrity of utility facilities paralleling or encroaching trolley structures during the removal of trolley structures (including rails, timber ties, trolley conduits, and main conduits), and backfilling and compacting within a zoned area designated for protection of utilities by the facility operator(s).

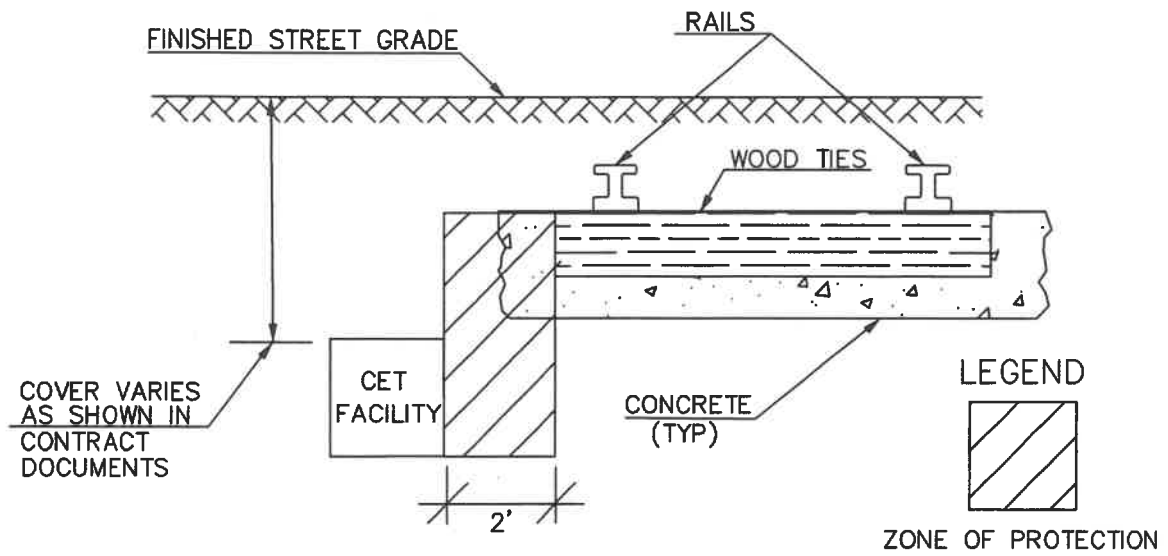
The unit price shall also include any additional cutting, removing and disposing of roadway materials; hand or machine excavation; trucking and disposing of excavated materials, installation and removal of sheeting; and furnishing, installing and compacting backfill that may be required to support, protect, maintain and accommodate the integrity of utility facilities. The price shall also include means to ascertain the numerical relationship between utility and the trolley structure, and the incremental cost for providing all vehicular and pedestrian traffic maintenance necessary to perform the work.

The Contractor shall be responsible for any and all damages resulting from and/or due to trolley demolition operations that are not performed in accordance with the specifications.

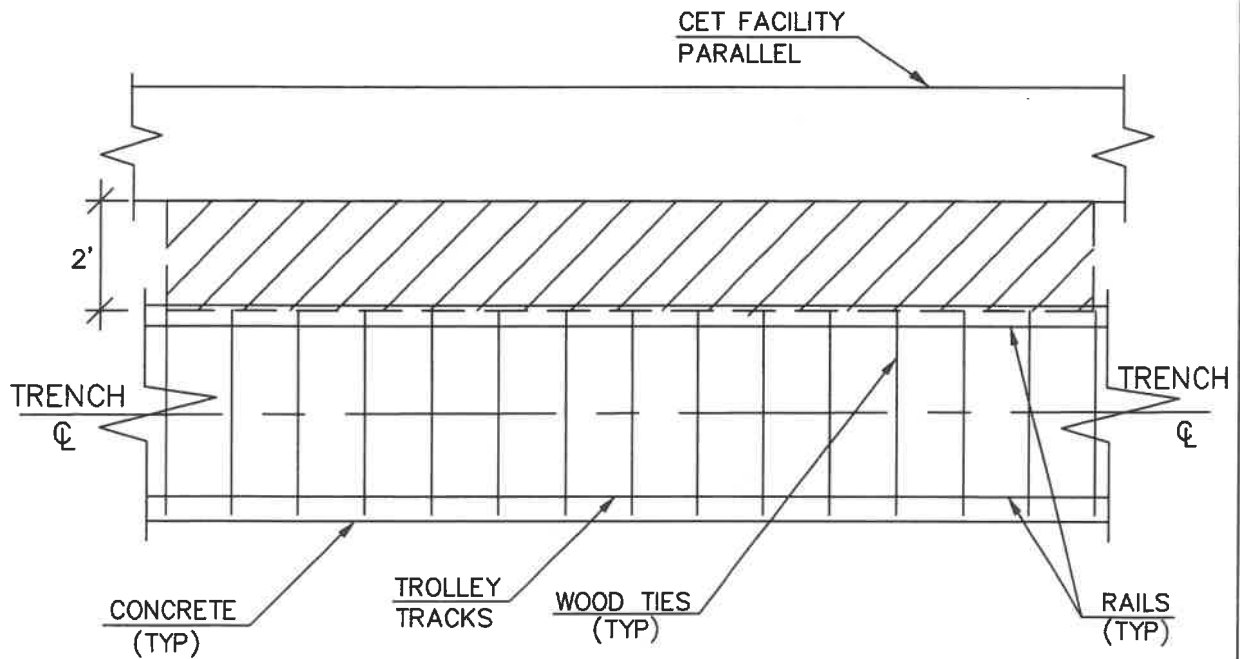
When this work is performed within a mass excavation area, a credit will be taken for the removed trolley structure.

**F. References**

1. NYS Industrial Code Rule 753
2. Sketch JB 799



SECTION OF CET FACILITIES PARALLELING TROLLEY TRACKS



PLAN OF CET FACILITIES PARALLELING TROLLEY TRACKS

NO CONCRETE YOKE

J.B. SKETCH

CET ACCOMODATION  
FACILITIES PARALLEL  
TROLLEY RAILROAD  
STRUCTURES

REVISIONS

09/13/2017

CONTRACT NO.

SKETCH NO.  
JB 799



**JB 803 - LINE CUT BY PNEUMATIC TOOLS IN LIEU OF SAW CUT ASSOCIATED WITH ROADWAY REMOVAL OPERATIONS****A. Description**

Under this section, the Contractor shall provide all incremental labor, equipment, insurance and incidentals required to maintain, protect, support and accommodate the integrity of utility facilities that include but are not limited to oil or static facilities, and any other facilities of various sizes and configurations paralleling or crossing proposed saw cut areas located within a zone of protection associated with roadway removal operations, as determined by the utility operator. Utility facilities which cross under and between the saw cut area are included within this item. The work shall be performed in accordance with the contract plans, the specifications, and as encountered during construction and determined by the facility operator(s).

**B. Materials – N/A****C. Method of Construction**

The Contractor shall maintain, protect, support and accommodate the integrity of all utility facilities of various sizes and configurations paralleling or crossing the saw cut area within a zone of protection as determined by the Facility Operator, during the roadway saw cut. The facility operator(s) shall identify the locations of all utilities within the contract area as required by New York State Industrial Code Rule 753. As provided by the Rule, the Contractor shall use pneumatic tools to line cut the pavement in lieu of saw cut by machine. It is the sole discretion of the facility operator(s) to determine relationships and/or dimensions, and advise the Contractor to proceed with pneumatic tools to line cut existing roadway structure.

**D. Method of Measurement**

The quantity to be measured for payment shall be the number of linear feet of line cut performed by pneumatic tools measured along the length of cut. The contract item specified under this section shall not be measured for payment in conjunction with other types of utility items. Modifications to work methods required in areas between zones of protection for multiple utilities or JB facilities shall not be measured for payment and are included in the price bid for this item.

JB 803.1 Line cut Asphalt Roadway (LF)

JB 803.2 Line cut any combination of Asphalt and Concrete Roadway (LF)

JB 803.3 Line cut any combination of Asphalt, Concrete, and Belgium Block (LF)

**E. Price to Cover**

The unit price per linear foot shall include the incremental cost for all labor, equipment, insurance and incidentals required to maintain, protect, support and accommodate the integrity of utility facilities paralleling or crossing the saw cut area associated with the removal of roadway designated for protection of utilities by the facility operator(s).

The unit price shall also include any additional cutting, removing and disposing of roadway materials; and any backfill that may be required to support, protect, maintain and accommodate the integrity of utility facilities. The price shall also include the incremental cost for providing all vehicular and pedestrian traffic maintenance necessary to perform the work.

The Contractor shall be responsible for any and all damages resulting from and/or due to saw cutting operations that are not performed in accordance with the specifications.

**F. References**

1. NYS Industrial Code Rule 753

**LISTING OF COMPANIES NAME FOR THIS CONTRACT**

<b><u>COMPANY NAME</u></b>	<b><u>CONTACT NAME</u></b>	<b><u>CONTACT TELEPHONE</u></b>
CON EDISON	O'NEIL A WRIGHT	212-460-4834
VERIZON	AUBREY MAKHANLALL	718-977-8165
CHARTER SPECTRUM	JOHN PIAZZA	718-888-4261
NATIONAL GRID	NEVILLE JACOBS	718-963-5612

# **PRIVATE UTILITY SCOPE OF WORK**

**(NO TEXT IN THIS SECTION)**

**JOINT BID WORKSHEET**  
**ENGINEER'S ESTIMATE OF QUANTITY AND TYPES OF INTERFERENCE**  
**FOR CONSOLIDATED EDISON COMPANY OF NEW YORK**  
**QED1023B**  
**CYPRESS AVENUE**  
**BOROUGH OF QUEENS**

JOINT BID ITEM NUMBER	DESCRIPTION	UNITS	ESTIMATED QUANTITY
JB 100.1	UTILITIES CROSSING TRENCH FOR CATCH BASIN CHUTE CONNECT. AND/OR TESTPIT (TYPE .1)	EA	21
JB 100.2	UTILITIES CROSSING TRENCH FOR CATCH BASIN CHUTE CONNECT. AND/OR TESTPIT (TYPE .2)	EA	2
JB 100.3	UTILITIES CROSSING TRENCH FOR CATCH BASIN CHUTE CONNECT. AND/OR TESTPIT (TYPE .3)	EA	1
JB 101.1	UTILITIES CROSSING TRENCH FOR SEWERS UP TO AND INCL. 24" DIAMETER (TYPE .1)	EA	27
JB 101.2	UTILITIES CROSSING TRENCH FOR SEWERS UP TO AND INCL. 24" DIAMETER (TYPE .2)	EA	3
JB 104.1	UTILITIES CROSSING TRENCH FOR SEWERS OVER 48" TO 54" DIAMETER (TYPE .1)	EA	2
JB 104.2	UTILITIES CROSSING TRENCH FOR SEWERS OVER 48" TO 54" DIAMETER (TYPE .2)	EA	1
JB 106.1	UTILITIES CROSSING TRENCH FOR SEWERS OVER 60" TO 72" DIAMETER (TYPE .1)	EA	2
JB 108.1	UTILITIES CROSSING TRENCH FOR WATERMAIN UP TO AND INCL. 12" DIAMETER (TYPE .1)	EA	70
JB 108.2	UTILITIES CROSSING TRENCH FOR WATERMAIN UP TO AND INCL. 12" DIAMETER (TYPE .2)	EA	23
JB 109.1	UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 12" AND UP TO 24" (TYPE .1)	EA	25
JB 109.2	UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 12" AND UP TO 24" (TYPE .2)	EA	1
JB 111.1	UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 36" AND UP TO 48" (TYPE .1)	EA	9
JB 111.2	UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 36" AND UP TO 48" (TYPE .2)	EA	3
JB 111.3	UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 36" AND UP TO 48" (TYPE .3)	EA	1
JB 113.1	UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 54" AND UP TO 60" (TYPE .1)	EA	44
JB 113.2	UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 54" AND UP TO 60" (TYPE .2)	EA	4

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**ENGINEER'S ESTIMATE OF QUANTITY AND TYPES OF INTERFERENCE**  
**FOR CONSOLIDATED EDISON COMPANY OF NEW YORK**  
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**CYPRESS AVENUE**  
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JOINT BID ITEM NUMBER	DESCRIPTION	UNITS	ESTIMATED QUANTITY
JB 113.3	UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 54" AND UP TO 60" (TYPE .3)	EA	1
JB 225	INSTALLATION AND REMOVAL OF CATCH BASINS WITH UTILITY INTERFERENCES	EA	1
JB 226	INSTALLATION OF CATCH BASINS WITH UTILITY INTERFERENCES	EA	11
JB 300	SPECIAL CARE EXCAVATION AND BACKFILING	CY	27
JB 301	SPECIAL CARE EXCAVATION AND BACKFILLING FOR OIL-O-STATIC PIPES	CY	11
JB 303	FURNISH, DELIVER AND INSTALL TYPE 3/8 CLEAN SAND BACKFILL	CY	11
JB 330E.1	SUPPORT & PROTECT ELEC, GAS & STEAM FACILITIES DURING EXCAVATION OF CITY TRENCH WHEN FACILITIES LIE W/IN TRENCH LIMITS (TYPE .1)	LF	773
JB 330E.2	SUPPORT & PROTECT ELEC, GAS & STEAM FACILITIES DURING EXCAVATION OF CITY TRENCH WHEN FACILITIES LIE W/IN TRENCH LIMITS (TYPE .2)	LF	595
JB 330E.4	SUPPORT & PROTECT ELEC, GAS & STEAM FACILITIES DURING EXCAVATION OF CITY TRENCH WHEN FACILITIES LIE W/IN TRENCH LIMITS (TYPE .4)	LF	114
JB 330E.6	SUPPORT & PROTECT ELEC, GAS & STEAM FACILITIES DURING EXCAVATION OF CITY TRENCH WHEN FACILITIES LIE W/IN TRENCH LIMITS (TYPE .6)	LF	7
JB 330E.7	SUPPORT & PROTECT ELEC, GAS & STEAM FACILITIES DURING EXCAVATION OF CITY TRENCH WHEN FACILITIES LIE W/IN TRENCH LIMITS (TYPE .7)	LF	7
JB 350	ACCOMODATION OF OH FACILITIES, POLES & APPURTENANCES	LS	1
JB 400	TEST PITS FOR UTILITY FACILITIES	CY	93
JB 401	TRENCH EXCAVATION FOR ADJUSTMENT OF UTILITIES	CY	173
JB 402.1	EXISTING OCCUPIED CONCRETE ENCASED CONDUITS PLACED IN FINAL POSITION W/O CONCRETE ENCASEMENT	LF	232
JB 402.2	EXISTING OCCUPIED NON-CONCRETE ENCASED CONDUITS PLACED IN FINAL POSITION W/O CONCRETE ENCASEMENT	LF	1,546
JB 410.1	MASS EXCAVATION (VOLUME UP TO AND INCLUDING 20%) FROM TOP OF ROADWAY LESS THAN 5 FT DEEP	CY	46

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**JOINT BID WORKSHEET**  
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JOINT BID ITEM NUMBER	DESCRIPTION	UNITS	ESTIMATED QUANTITY
JB 410.2	MASS EXCAVATION (VOLUME OVER 20% UP TO AND INCLUDING 40%) FROM TOP OF ROADWAY LESS THAN 5 FT DEEP	CY	65
JB 450.1	CONSTRUCTION FIELD SUPPORT REQUIRING AVERAGE SIZE SURVEY CREW PERFORMING TYPICAL SURVEY FUNCTIONS (TYPE .1)	CRHRS	12
JB 450.2	CONSTRUCTION FIELD SUPPORT REQUIRING AVERAGE SMALL SIZE CREW CAPABLE OF PERFORMING VARIOUS TASKS (TYPE .2)	CRHRS	260
JB 450.3	CONSTRUCTION FIELD SUPPORT REQUIRING AVERAGE MEDIUM SIZE CREW CAPABLE OF PERFORMING VARIOUS TASKS (TYPE .3)	CRHRS	364
JB 500	REMOVAL OF ABANDONED UTILITY CONDUITS (NON-CONCRETE ENCASED)	LF	99
JB 603E.1	INSTALL UTILITY CONDUITS PLACED IN FINAL POSITION WITHOUT CONCRETE ENCASEMENT	LF	880
JB 636 ED	ADJUSTMENT OF UTILITY HARDWARE (30" TO UNDER 34" WIDTH)	EA	27
JB 636 EE	ADJUSTMENT OF UTILITY HARDWARE (34" TO UNDER 41" WIDTH)	EA	5
JB 636 EG	ADJUSTMENT OF UTILITY HARDWARE (41" TO UNDER 75" WIDTH)	EA	24
JB 638 N	INSTALLATION OF FIELD CONSTRUCTED UTILITY STRUCTURE	CY	1
JB 638 R	BREAK OUT AND REMOVE UTILITY STRUCTURE	CY	1
JB 803.2	LINE CUT BY PNEUMATIC TOOLS IN LIEU OF SAW CUT ASSOCIATED WITH RDWY REMOVAL (LINE CUT ASPHALT AND CONCRETE ROADWAY)	LF	12
JB 900	EXTRA UTILITY WORK COSTS ALLOWANCE	FS	1

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**JB 100.1**      **UTILITIES CROSSING TRENCH FOR CATCH BASIN CHUTE CONNECT. AND/OR TESTPIT (TYPE .1)**      **EA**

*At the following locations:*

N/E/C Troutman and Onderdonk (Cb)  
S/E/C Cypress and Willoughby (SI Serv)  
S/E/C Cypress and Willoughby (1cd)  
S/E/C Cypress and Suydam (1cd)  
N/E/C Cypress and Suydam (1cd)  
N/E/C Cypress and Hart (1fd)  
N/W/C Cypress and Stockholm (2cd)  
N/E/C Cypress and Stockholm (2cd)  
N/E/C Cypress and Stanhope (2ip)  
N/E/C Cypress and Stanhope (3cd)  
N/W/C Himrod and Seneca (SI Serv)  
S/E/C Himrod and Onderdonk (SI Serv)  
N/E/C Himrod and Onderdonk (1wd)  
I/O Himrod and Onderdonk (1wd)  
I/O Himrod and Onderdonk (1wd)  
N/W/C Himrod and Woodward (Cb)  
N/E/C Himrod and Woodward (Cb)  
N/E/C Himrod and Woodward (SI Serv)  
I/O Himrod and Fairview (2cd)  
N/W/C Himrod and Fairview  
N/E/C Himrod and Fairview

AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

**Total Quantity for JB 100.1      =    21**

**JB 100.2**      **UTILITIES CROSSING TRENCH FOR CATCH BASIN CHUTE CONNECT. AND/OR TESTPIT (TYPE .2)**      **EA**

*At the following locations:*

N/W/C Himrod and Seneca (Cb/4cd)  
N/E/C Himrod and Seneca (Cb/6fd)

**Total Quantity for JB 100.2      =    2**



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**JB 100.3 UTILITIES CROSSING TRENCH FOR CATCH BASIN CHUTE CONNECT. AND/OR TESTPIT (TYPE .3) EA**

*At the following locations:*

N/E/C Himrod and Onderdonk (Oil-o)

**Total Quantity for JB 100.3 = 1**

**JB 101.1 UTILITIES CROSSING TRENCH FOR SEWERS UP TO AND INCL. 24" DIAMETER (TYPE .1) EA**

*At the following locations:*

E/S Willoughby 100' S/S/C Cypress (1cd Serv)

I/O Cypress and Stanhope (2cd)

I/O Himrod and Seneca (2ip Serv)

I/O Himrod and Seneca (2cd)

C/L Woodward E/O Himrod (SI Serv)

C/L Fairview E/O Himrod (SI Serv)

C/L Himrod 100' S/S/C Grandview (1cd)

F/O Hse. #1811 Himrod (SI Srv)

F/O Hse. #1215 Himrod (Serv)

F/O Hse. #1821 Himrod (Serv)

I/O Himrod and Onderdonk (SI Serv)

F/O Hse. #1854 Himrod (Serv)

F/O Hse. #1865 Himrod (Serv)

F/O Hse. #1869 Himrod (Serv)

F/O Hse. #1875 Himrod (Serv)

C/L Himrod 70' S/S/C Woodward (1cd)

I/O Himrod and Woodward

F/O Hse. #1911 Himrod (Serv)

F/O Hse. #1917 Himrod (Serv)

F/O Hse. #1925 Himrod (Serv)

F/O Hse. #1931 Himrod (Serv)

I/O Himrod and Fairview (2cd)

F/O Hse. #2013 Himrod (SI Serv)

F/O Hse. #2015 Himrod (Serv)

F/O Hse. #2023 Himrod (Serv)

F/O Hse. #2027 Himrod (Serv)

F/O Hse. #2033 Himrod (Serv)

**Total Quantity for JB 101.1 = 27**

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**JB 101.2** UTILITIES CROSSING TRENCH FOR SEWERS UP TO AND INCL. 24" DIAMETER (TYPE .2) EA

*At the following locations:*

I/O Himrod and Seneca (6fd)

I/O Himrod and Seneca (6fd)

I/O Himrod and Onderdonk (4cd)

**Total Quantity for JB 101.2 = 3**

**JB 104.1** UTILITIES CROSSING TRENCH FOR SEWERS OVER 48" TO 54" DIAMETER (TYPE .1) EA

*At the following locations:*

C/L Himrod 115' N/N/C Cypress (1wd)

C/L Himrod 140' N/N/C Cypress (1wd Serv)

AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

**Total Quantity for JB 104.1 = 2**

**JB 104.2** UTILITIES CROSSING TRENCH FOR SEWERS OVER 48" TO 54" DIAMETER (TYPE .2) EA

*At the following locations:*

I/O Cypress and Himrod (6fd)

**Total Quantity for JB 104.2 = 1**

**JB 106.1** UTILITIES CROSSING TRENCH FOR SEWERS OVER 60" TO 72" DIAMETER (TYPE .1) EA

*At the following locations:*

C/L Troutman 325' N/N/C Woodward (Serv)

C/L Troutman 120' S/S/C Flushing (SI Serv)

**Total Quantity for JB 106.1 = 2**

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**JB 108.1**

**UTILITIES CROSSING TRENCH FOR WATERMAIN UP TO AND INCL. 12" DIAMETER (TYPE .1)**

**EA**

*At the following locations:*

E/S Troutman 135' S/S/C Cypress (Serv)  
E/S Troutman 30' N/N/C Cypress (Hyd)  
E/S Troutman 135' N/N/C Cypress (SI Serv)  
E/S Troutman 210' N/N/C Cypress (Hyd)  
E/S Troutman 120' S/S/C Seneca (SI Serv)  
E/S Troutman 30' S/S/C Seneca (Hyd)  
I/O Troutman and Seneca (2cd)  
N/E/C Troutman and Seneca (SI Serv)  
E/S Troutman 173' N/N/C Seneca (Hyd)  
E/S Troutman 127' S/S/C Onderdonk (SI Serv)  
E/S Troutman 50' S/S/C Onderdonk (Hyd)  
E/S Troutman 135' S/S/C Woodward (1wd)  
E/S Troutman 240' N/N/C Woodward (SI Serv)  
E/S Troutman 325' N/N/C Woodward (1cd)  
E/S Troutman 220' S/S/C Flushing (SI Serv)  
I/O Cypress and Willoughby (SI Serv)  
I/O Cypress and Willoughby (1cd)  
I/O Cypress and Suydam (1cd)  
N/E/C Cypress and Suydam (SI Serv)  
S/W/C Cypress and Hart (SI Serv)  
I/O Cypress and Hart (1fd)  
I/O Cypress and Hart (SI Serv)  
W/S Dekalb 25' S/S/C Cypress (Serv)  
N/W/C Cypress and Dekalb (SI Serv)  
N/W/C Cypress and Dekalb (SI Serv)  
I/O Cypress and Dekalb (2cd)  
I/O Cypress and Dekalb (2cd)  
N/S Cypress B/W Dekalb and Stockholm (Hyd)  
N/S Cypress B/W Dekalb and Stockholm (Hyd)  
S/W/C Cypress and Stockholm (SI Serv)  
I/O Cypress and Stockholm (2cd)  
I/O Cypress and Stockholm (SI Serv)  
N/S Cypress B/W Stockholm and Stanhope (Hyd)  
N/S Cypress B/W Stockholm and Stanhope (Hyd)

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C/L Cypress B/W Stockholm and Stanhope (SI Serv)  
C/L Cypress W/W/C Stanhope (SI Serv)  
I/O Cypress and Stanhope (2cd)  
I/O Cypress and Stanhope (1cd)  
N/S Cypress 20' E/E/C Stanhope (Hyd)  
C/L Cypress B/W Stanhope and Himrod (SI Serv)  
C/L Cypress B/W Stanhope and Himrod (Serv)  
N/S Cypress B/W Stanhope and Himrod (Hyd)  
N/S Cypress 30' E/E/C Himrod (Hyd)  
W/S Himrod 115' N/N/C Cypress (1wd)  
W/S Himrod 140' N/N/C Cypress (1wd Serv)  
W/S Himrod 185' N/N/C Cypress (1wd)  
C/L Himrod 185' N/N/C Cypress (1wd)  
N/W/C Himrod and Seneca (2cd)  
N/W/C Himrod and Seneca (2ip Serv)  
W/S Himrod 130' N/N/C Seneca (SI Serv)  
W/S Himrod 185' N/N/C Seneca (1wd)  
W/S Himrod 240' N/N/C Seneca (1cd Serv)  
S/W/C Himrod and Onderdonk (2cd)  
S/W/C Himrod and Onderdonk (2cd)  
S/W/C Himrod and Onderdonk (SI Serv)  
W/S Himrod 30' N/N/C Onderdonk (1cd Serv)  
W/S Himrod 165' N/N/C Onderdonk (1wd)  
W/S Himrod 260' N/N/C Onderdonk (1fd)  
W/S Himrod 315' N/N/C Onderdonk (1fd)  
W/S Himrod 70' S/S/C Woodward (2fd)  
W/S Himrod 115' N/N/C Woodward (1fd)  
W/S Himrod 175' N/N/C Woodward (1fd)  
W/S Himrod 210' S/S/C Fairview (1fd)  
W/S Himrod 130' S/S/C Fairview (1fd)  
W/S Himrod 140' N/N/C Fairview (SI Serv)  
W/S Himrod 170' N/N/C Fairview (1fd)  
W/S Himrod 235' N/N/C Fairview (1wd)  
W/S Himrod 280' N/N/C Fairview (1fd)  
W/S Himrod 165' S/S/C Grandview (1fd)  
W/S Himrod 90' S/S/C Grandview (1fd)

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**Total Quantity for JB 108.1 = 70**

**JB 108.2 UTILITIES CROSSING TRENCH FOR WATERMAIN UP TO AND INCL. 12" DIAMETER (TYPE .2) EA**

*At the following locations:*

E/S Troutman 75' S/S/C Cypress (6cd/Hyd)  
E/S Troutman 160' N/N/C Onderdonk (Hyd)  
E/S Troutman 80' S/S/C Woodward (Hyd)  
E/S Troutman 135' N/N/C Woodward (Hyd)  
E/S Troutman 360' N/N/C Woodward (Hyd)  
S/W/C Cypress and Suydam (4cd)  
S/E/C Cypress and Himrod (6fd)  
W/S Himrod 180' N/N/C Cypress (Hyd/6fd)  
W/S Himrod 50' S/S/C Seneca (Hyd/6fd)  
S/W/C Himrod and Seneca (6fd)  
S/W/C Himrod and Seneca (6fd)  
N/W/C Himrod and Seneca (6fd)  
N/W/C Himrod and Seneca (6fd)  
W/S Himrod 30' N/N/C Seneca (5fd)  
W/S Himrod 155' N/N/C Seneca (Hyd/6fd)  
S/W/C Himrod and Onderdonk (Hyd/6fd)  
W/S Himrod 160' N/N/C Onderdonk (Hyd/6fd)  
W/S Himrod 80' S/S/C Woodward (Hyd/6fd)  
W/S Himrod 125' N/N/C Woodward (Hyd/6fd)  
W/S Himrod 100' S/S/C Fairview (Hyd/6fd)  
W/S Himrod 115' N/N/C Fairview (Hyd/6fd)  
W/S Himrod 170' S/S/C Grandview (Hyd/6fd)  
E/S Troutman 50' N/N/C Onderdonk (4fd)

**Total Quantity for JB 108.2 = 23**

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**JB 109.1**

**UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 12" AND UP TO 24" (TYPE .1)**

**EA**

*At the following locations:*

N/E/C Troutman and Cypress (2cd)  
N/E/C Cypress and Willoughby (1cd)  
N/E/C Cypress and Willoughby (SI Serv)  
N/E/C Cypress and Suydam (1cd)  
N/E/C Cypress and Suydam (SI Serv)  
N/E/C Cypress and Hart (1fd)  
N/E/C Cypress and Hart (SI Serv)  
N/W/C Cypress and Dekalb (SI Serv)  
N/E/C Cypress and Dekalb (2cd)  
N/E/C Cypress and Dekalb (2cd)  
N/E/C Cypress and Stockholm (SI Serv)  
N/W/C Cypress and Stockholm (2cd)  
N/E/C Cypress and Stockholm (2cd)  
N/E/C Cypress and Stockholm (2cd)  
N/S Cypress B/W Stockholm and Stanhope (SI Serv)  
N/W/C Cypress and Stanhope (2cd)  
N/W/C Cypress and Stanhope (SI Serv)  
N/E/C Cypress and Stanhope (2cd)  
N/E/C Cypress and Stanhope (1cd)  
N/E/C Cypress and Stanhope (2cd)  
N/S Cypress B/W Stanhope and Himrod (Serv)  
N/W/C Cypress and Himrod (2cd)  
N/S Cypress and 20' E/E/C Himrod (Reg/2cd)  
N/S Cypress 30' E/E/C Himrod (Reg/2cd)  
N/S Cypress 30' E/E/C Himrod (Reg/2cd)

**Total Quantity for JB 109.1 = 25**

**JB 109.2**

**UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 12" AND UP TO 24" (TYPE .2)**

**EA**

*At the following locations:*

N/E/C Cypress and Himrod (6fd)  
AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

**Total Quantity for JB 109.2 = 1**

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**JB 111.1 UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 36" AND UP TO 48" (TYPE .1) EA**

*At the following locations:*

W/S Troutman 150' S/S/C Cypress (Serv)  
W/S Troutman 125' N/N/N Cypress (SI Serv)  
W/S Troutman 120' S/S/C Seneca (SI Serv)  
W/S Troutman 10' N/N/C Seneca (SI Serv)  
W/S Troutman 127' S/S/C Onderdonk (SI Serv)  
W/S Troutman 135' S/S/C Woodward (1wd)  
W/S Troutman 240' N/N/C Woodward (SI Serv)  
W/S Troutman 325' N/N/C Woodward (1cd)  
W/S Troutman 120' S/S/C Flushing (SI Serv)

**Total Quantity for JB 111.1 = 9**

**JB 111.2 UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 36" AND UP TO 48" (TYPE .2) EA**

*At the following locations:*

S/W/C Troutman and Cypress (4cd)  
N/W/C Troutman and Onderdonk (4fd)  
N/W/C Troutman and Woodward (4fd)

**Total Quantity for JB 111.2 = 3**

**JB 111.3 UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 36" AND UP TO 48" (TYPE .3) EA**

*At the following locations:*

N/W/C Troutman and Onderdonk (7-4fd)

AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

**Total Quantity for JB 111.3 = 1**

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**JB 113.1**

**UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 54" AND UP TO 60" (TYPE .1)**

**EA**

*At the following locations:*

S/E/C Cypress and Willoughby (SI Serv)  
S/E/C Cypress and Willoughby (1cd)  
S/E/C Cypress and Suydam (1cd)  
S/E/C Cypress and Suydam (SI Serv)  
S/E/C Cypress and Hart (1fd)  
S/E/C Cypress and Hart (SI Serv)  
S/W/C Cypress and Dekalb (SI Serv)  
S/E/C Cypress and Dekalb (2cd)  
S/E/C Cypress and Dekalb (2cd)  
S/E/C Cypress and Stockholm (2cd)  
S/E/C Cypress and Stockholm (SI Serv)  
S/S Cypress B/W Stockholm and Stanhope (SI Serv)  
S/W/C Cypress and Stanhope (SI Serv)  
S/E/C Cypress and Stanhope (2cd)  
S/E/C Cypress and Stanhope (1cd)  
S/S Cypress B/W Stanhope and Himrod (SI Serv)  
S/S Cypress B/W Stanhope and Himrod (Serv)  
E/S Himrod 115' N/N/C Cypress (1wd)  
E/S Himrod 140' N/N/C Cypress (1wd Serv)  
E/S Himrod 185' N/N/C Cypress (1wd)  
I/O Himrod and Seneca (2ip Serv)  
N/E/C Himrod and Seneca (2cd)  
E/S Himrod 130' N/N/C Seneca (SI Serv)  
E/S Himrod 185' N/N/C Seneca (1wd)  
W/S Himrod 240' N/N/C Seneca (1cd Serv)  
S/E/C Himrod and Onderdonk (SI Serv)  
I/O Himrod and Onderdonk (1wd)  
E/S Himrod 30' N/N/C Onderdonk (1cd Serv)  
E/S Himrod 165' N/N/C Onderdonk (1wd)  
E/S Himrod 260' N/N/C Onderdonk (1fd)  
E/S Himrod 315' N/N/C Onderdonk (1fd)  
E/S Himrod 70' S/S/C Woodward (2fd)  
N/E/C Himrod and Woodward (2cd)  
E/S Himrod 115' N/N/C Woodward (1fd)



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E/S Himrod 175' N/N/C Woodward (1fd)  
E/S Himrod 210' S/S/C Fairview (1fd)  
E/S Himrod 130' S/S/C Fairview (1fd)  
N/E/C Himrod and Fairview (2cd)  
E/S Himrod 140' N/N/C Fairview (SI Serv)  
E/S Himrod 170' N/N/C Fairview (1fd)  
E/S Himrod 235' N/N/C Fairview (1wd)  
E/S Himrod 280' N/N/C Fairview (1fd)  
E/S Himrod 165' S/S/C Grandview (1fd)  
E/S Himrod 90' S/S/C Grandview (1fd)

AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

**Total Quantity for JB 113.1 = 44**

**JB 113.2 UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 54" AND UP TO 60" (TYPE .2) EA**

*At the following locations:*

I/O Cypress and Willoughby (4fd)  
I/O Cypress and Himrod (6fd)  
N/E/C Himrod and Seneca (6fd)  
S/E/C Himrod and Onderdonk (4cd)

**Total Quantity for JB 113.2 = 4**

**JB 113.3 UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 54" AND UP TO 60" (TYPE .3) EA**

*At the following locations:*

I/O Himrod and Onderdonk (Oil-o)

AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

**Total Quantity for JB 113.3 = 1**

**JB 225 INSTALLATION AND REMOVAL OF CATCH BASINS WITH UTILITY INTERFERENCES EA**

*At the following locations:*

N/E/C Troutman and Onderdonk (Cb)

AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

**Total Quantity for JB 225 = 1**

**CON EDISON JOINT BIDDING SCOPE OF WORK  
SUPPORT AND PROTECTION  
QED1023B  
CYPRESS AVENUE  
BOROUGH OF QUEENS**

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**JB 226**

**INSTALLATION OF CATCH BASINS WITH UTILITY INTERFERENCES**

**EA**

*At the following locations:*

S/E/C Cypress and Willoughby (Cb)  
S/E/C Cypress and Suydam (Cb)  
N/E/C Cypress and Suydam (Cb)  
N/E/C Cypress and Hart (Cb)  
N/W/C Cypress and Stockholm (Cb)  
N/E/C Cypress and Stockholm (Cb)  
N/W/C Cypress and Stanhope (Cb)  
N/E/C Cypress and Stanhope (Cb)  
N/W/C Himrod and Seneca (Cb/4cd)  
W/C Himrod 20' N/N/C Seneca (Cb/11cd)  
N/C Seneca 20' E/E/C Himrod (Cb)

AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

**Total Quantity for JB 226 = 11**

**JB 300**

**SPECIAL CARE EXCAVATION AND BACKFILING**

**CY**

*At the following locations:*

E/S Troutman 135' S/S/C Cypress (SB8988)  
E/S Troutman 140' N/N/C Cypress (SB48922)  
E/S Troutman 195' S/S/C Seneca (SB48921)  
E/S Troutman 50' S/S/C Seneca (SB48920)  
N/E/C Troutman and Seneca (SB48919)  
E/S Troutman 110' N/N/C Seneca (SB48918)  
E/S Troutman 127' S/S/C Onderdonk (SB48917)  
N/E/C Troutman and Onderdonk (7-4fd)  
N/S Cypress B/W Stanhope and Himrod (2cd)  
N/W/C Cypress and Himrod (SB12874)  
N/E/C Cypress and Himrod (SB12875)  
W/S Himrod 40' N/N/C Cypress (M3775)  
C/L Himrod 30' N/N/C Seneca (Tm5771)  
I/O Himrod and Onderdonk (Oil-o)

**Total Quantity for JB 300 = 27**

**CON EDISON JOINT BIDDING SCOPE OF WORK  
SUPPORT AND PROTECTION  
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BOROUGH OF QUEENS**

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<b>JB 301</b>	<b>SPECIAL CARE EXCAVATION AND BACKFILLING FOR OIL-O-STATIC PIPES</b>	<b>CY</b>
	<i>At the following locations:</i>	
	I/O Himrod and Onderdonk (Oil-o)	
	AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE	
	<b>Total Quantity for JB 301 = 11</b>	
<b>JB 303</b>	<b>FURNISH, DELIVER AND INSTALL TYPE 3/8 CLEAN SAND BACKFILL</b>	<b>CY</b>
	<i>At the following locations:</i>	
	I/O Himrod and Onderdonk (Oil-o)	
	AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE	
	<b>Total Quantity for JB 303 = 11</b>	
<b>JB 330E.1</b>	<b>SUPPORT &amp; PROTECT ELEC, GAS &amp; STEAM FACILITIES DURING EXCAVATION OF CITY TRENCH WHEN FACILITIES LIE W/IN TRENCH LIMITS (TYPE .1)</b>	<b>LF</b>
	<i>At the following locations:</i>	
	E/S Willoughby; S/S/C Cypress (2fd)	
	N/S Cypress B/W Dekalb and Stockholm (2cd)	
	N/W/C Cypress and Stockholm (2cd)	
	N/E/C Cypress and Stockholm (2cd)	
	N/S Cypress B/W Stanhope and Himrod (2cd)	
	N/S Cypress 30' E/E/C Himrod (Reg/2cd)	
	S/W/C Himrod and Onderdonk (2cd)	
	N/E/C Himrod and Onderdonk (1wd)	
	N/S Cypress B/W Stockholm and Stanhope (2cd)	
	AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE	
	<b>Total Quantity for JB 330E.1 = 773</b>	

**CON EDISON JOINT BIDDING SCOPE OF WORK  
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**JB 330E.2**      **SUPPORT & PROTECT ELEC, GAS & STEAM FACILITIES DURING EXCAVATION OF CITY TRENCH WHEN FACILITIES LIE W/IN TRENCH LIMITS (TYPE .2)**      **LF**

*At the following locations:*

N/W/C Troutman and Onderdonk (M2773)  
N/W/C Troutman and Onderdonk (4fd)  
E/S Willoughby 100' S/S/C Cypress (SB1408)  
S/E/C Cypress and Willoughby (SB9975)  
S/S Cypress B/W Willoughby and Suydam (4cd)  
I/O Cypress and Suydam (4cd)  
S/E/C Cypress and Suydam (SB9039)  
N/E/C Cypress and Stockholm (SB59804)  
N/S Cypress B/W Stockholm and Stanhope (SB69438)  
E/S Troutman 190' N/N/C Onderdonk (SB5719)  
E/S Troutman B/W Onderdonk and Woodward (4fd)

AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

**Total Quantity for JB 330E.2      =      595**

**JB 330E.4**      **SUPPORT & PROTECT ELEC, GAS & STEAM FACILITIES DURING EXCAVATION OF CITY TRENCH WHEN FACILITIES LIE W/IN TRENCH LIMITS (TYPE .4)**      **LF**

*At the following locations:*

E/S Troutman 115' N/N/C Woodward (SB61474)  
E/S Troutman 240' N/N/C Woodward (SB61475)  
E/S Troutman 325' N/N/C Woodward (SB65041)  
E/S Troutman 425' N/N/C Woodward (SB61476)  
E/S Troutman 200' S/S/C Flushing (4fd)  
N/S Cypress B/W Stanhope and Himrod (SB37794)  
N/S Cypress B/W Stanhope and Himrod (SB37793)

**Total Quantity for JB 330E.4      =      114**

**JB 330E.6**      **SUPPORT & PROTECT ELEC, GAS & STEAM FACILITIES DURING EXCAVATION OF CITY TRENCH WHEN FACILITIES LIE W/IN TRENCH LIMITS (TYPE .6)**      **LF**

*At the following locations:*

N/E/C Cypress and Stanhope (SB54777)

**Total Quantity for JB 330E.6      =      7**

**CON EDISON JOINT BIDDING SCOPE OF WORK  
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<b>JB 330E.7</b>	<b>SUPPORT &amp; PROTECT ELEC, GAS &amp; STEAM FACILITIES DURING EXCAVATION OF CITY TRENCH WHEN FACILITIES LIE W/IN TRENCH LIMITS (TYPE .7)</b>	<b>LF</b>
	<i>At the following locations:</i>	
	E/S Troutman 135' S/S/C Woodward (SB2630)	
	<b>Total Quantity for JB 330E.7 = 7</b>	
<b>JB 350</b>	<b>ACCOMODATION OF OH FACILITIES, POLES &amp; APPURTENANCES</b>	<b>LS</b>
	<i>At the following locations:</i>	
	Various	
	<b>Total Quantity for JB 350 = 1</b>	
<b>JB 400</b>	<b>TEST PITS FOR UTILITY FACILITIES</b>	<b>CY</b>
	<i>At the following locations:</i>	
	Various (+/- 20 Test Pits)	
	<b>Total Quantity for JB 400 = 93</b>	
<b>JB 401</b>	<b>TRENCH EXCAVATION FOR ADJUSTMENT OF UTILITIES</b>	<b>CY</b>
	<i>At the following locations:</i>	
	S/E/C Cypress and Willoughby (Cb)	
	S/E/C Cypress and Suydam (Cb)	
	N/E/C Cypress and Suydam (Cb)	
	N/E/C Cypress and Hart (Cb)	
	N/W/C Cypress and Stockholm (Cb)	
	N/E/C Cypress and Stockholm (Cb)	
	N/W/C Cypress and Stanhope (Cb)	
	N/E/C Cypress and Stanhope (Cb)	
	N/W/C Himrod and Seneca (Cb/4cd)	
	N/E/C Himrod and Seneca (Cb/6cd)	
	S/W/C Cypress and Troutman (4cd)	
	N/W/C Himrod and Seneca (Cb/2cd S/W)	
	AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE	
	<b>Total Quantity for JB 401 = 173</b>	

**CON EDISON JOINT BIDDING SCOPE OF WORK  
SUPPORT AND PROTECTION  
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**JB 402.1**      **EXISTING OCCUPIED CONCRETE ENCASED CONDUITS PLACED IN FINAL POSITION W/O CONCRETE ENCASEMENT**      **LF**

*At the following locations:*

N/E/C Cypress and Stockholm (Cb)  
I/O Cypress and Himrod (6fd)  
N/W/C Himrod and Seneca (Cb/2cd S/W)

AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

**Total Quantity for JB 402.1      =    232**

**JB 402.2**      **EXISTING OCCUPIED NON-CONCRETE ENCASED CONDUITS PLACED IN FINAL POSITION W/O CONCRETE ENCASEMENT**      **LF**

*At the following locations:*

S/E/C Cypress and Willoughby (Cb)  
S/E/C Cypress and Suydam (Cb)  
N/E/C Cypress and Suydam (Cb)  
N/E/C Cypress and Hart (Cb)  
N/W/C Cypress and Stockholm (Cb)  
N/W/C Cypress and Stanhope (Cb)  
N/E/C Cypress and Stanhope (Cb)  
N/W/C Himrod and Seneca (Cb/4cd)  
N/E/C Himrod and Seneca (Cb/6cd)  
S/W/C Cypress and Troutman (4cd)  
N/S Cypress B/W Dekalb and Stockholm  
N/S Cypress B/W Stockholm and Stanhope

AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

**Total Quantity for JB 402.2      =    1,546**

**JB 410.1**      **MASS EXCAVATION (VOLUME UP TO AND INCLUDING 20%) FROM TOP OF ROADWAY LESS THAN 5 FT DEEP**      **CY**

*At the following locations:*

I/O Cypress and Himrod (6fd)

**Total Quantity for JB 410.1      =    46**

**CON EDISON JOINT BIDDING SCOPE OF WORK  
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<b>JB 410.2</b>	<b>MASS EXCAVATION (VOLUME OVER 20% UP TO AND INCLUDING 40%) FROM TOP OF ROADWAY LESS THAN 5 FT DEEP</b>	<b>CY</b>
	<i>At the following locations:</i>	
	I/O Himrod and Seneca (6fd)	
	<b>Total Quantity for JB 410.2 = 65</b>	
<b>JB 450.1</b>	<b>CONSTRUCTION FIELD SUPPORT REQUIRING AVERAGE SIZE SURVEY CREW PERFORMING TYPICAL SURVEY FUNCTIONS (TYPE .1)</b>	<b>CRHRS</b>
	<i>At the following locations:</i>	
	N/S Cypress Ave. B/W Dekalb and Stockholm (2cd)	
	N/S Cypress B/W Stockholm and Stanhope (2cd)	
	<b>Total Quantity for JB 450.1 = 12</b>	
<b>JB 450.2</b>	<b>CONSTRUCTION FIELD SUPPORT REQUIRING AVERAGE SMALL SIZE CREW CAPABLE OF PERFORMING VARIOUS TASKS (TYPE .2)</b>	<b>CRHRS</b>
	<i>At the following locations:</i>	
	Various - Manhole Inspections	
	<b>Total Quantity for JB 450.2 = 260</b>	
<b>JB 450.3</b>	<b>CONSTRUCTION FIELD SUPPORT REQUIRING AVERAGE MEDIUM SIZE CREW CAPABLE OF PERFORMING VARIOUS TASKS (TYPE .3)</b>	<b>CRHRS</b>
	<i>At the following locations:</i>	
	Various - As Needed	
	<b>Total Quantity for JB 450.3 = 364</b>	
<b>JB 500</b>	<b>REMOVAL OF ABANDONED UTILITY CONDUITS (NON-CONCRETE ENCASED)</b>	<b>LF</b>
	<i>At the following locations:</i>	
	S/S Cypress B/W Suydam and Hart (1cd)	
	S/W/C Cypress and Himrod (4fd)	
	AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE	
	<b>Total Quantity for JB 500 = 99</b>	

**CON EDISON JOINT BIDDING SCOPE OF WORK  
SUPPORT AND PROTECTION  
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**JB 603E.1      INSTALL UTILITY CONDUITS PLACED IN FINAL POSITION WITHOUT CONCRETE ENCASEMENT      LF**

*At the following locations:*

N/S Cypress Ave. B/W Dekalb and Stockholm (2cd)

N/S Cypress B/W Stockholm and Stanhope (2cd)

**Total Quantity for JB 603E.1      =      880**



**CON EDISON JOINT BIDDING SCOPE OF WORK  
SUPPORT AND PROTECTION  
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**JB 636 ED      ADJUSTMENT OF UTILITY HARDWARE (30" TO UNDER 34" WIDTH)**

**EA**

*At the following locations:*

- E/S Troutman 70' N/N/C Cypress (SB48923)
- E/S Troutman 140' N/N/C Cypress (SB48922)
- E/S Troutman 195' S/S/C Seneca (SB48921)
- E/S Troutman 50' S/S/C Seneca (SB48920)
- E/S Troutman 110' N/N/C Seneca (SB48918)
- E/S Troutman 127' S/S/C Onderdonk (SB48917)
- E/S Troutman 190' N/N/C Onderdonk (SB5719)
- N/S Cypress B/W Stanhope and Himrod (SB37793)
- W/S Himrod 185' N/N/C Cypress (SB16722)
- W/S Himrod 135' S/S/C Seneca (SB16721)
- W/S Himrod 185' N/N/C Seneca (SB16720)
- W/S Himrod 165' N/N/C Onderdonk (SB5591)
- W/S Himrod 230' N/N/C Onderdonk (SB5592)
- W/S Himrod 260' N/N/C Onderdonk (SB5593)
- W/S Himrod 315' N/N/C Onderdonk (SB5595)
- W/S Himrod 70' S/S/C Woodward (SB5597)
- W/S Himrod 110' N/N/C Woodward (SB5599)
- W/S Himrod 180' N/N/C Woodward (SB5601)
- W/S Himrod 215' S/S/C Fairview (SB5603)
- W/S Himrod 130' S/S/C Fairview (SB5605)
- W/S Himrod 140' N/N/C Fairview (SB5607)
- W/S Himrod 170' N/N/C Fairview (SB5608)
- W/S Himrod 235' N/N/C Fairview (SB5610)
- W/S Himrod 280' N/N/C Fairview (SB5611)
- W/S Himrod 165' S/S/C Grandview (SB5615)
- W/S Himrod 90' S/S/C Grandview (SB5615)
- W/S Himrod 30' S/S/C Grandview (SB5617)

**AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE**

**Total Quantity for JB 636 ED      =      27**

**CON EDISON JOINT BIDDING SCOPE OF WORK  
SUPPORT AND PROTECTION  
QED1023B  
CYPRESS AVENUE  
BOROUGH OF QUEENS**

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**JB 636 EE      ADJUSTMENT OF UTILITY HARDWARE (34" TO UNDER 41" WIDTH)**

**EA**

*At the following locations:*

N/E/C Troutman and Onderdonk (SB48916)

N/W/C Troutman and Onderdonk (M2773)

E/S Troutman 135' S/S/C Woodward (SB2630)

N/E/C Troutman and Woodward (M3237)

S/E/C Cypress and Hart (New SB)

AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

**Total Quantity for JB 636 EE      =      5**

**CON EDISON JOINT BIDDING SCOPE OF WORK  
SUPPORT AND PROTECTION  
QED1023B  
CYPRESS AVENUE  
BOROUGH OF QUEENS**

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**JB 636 EG ADJUSTMENT OF UTILITY HARDWARE (41" TO UNDER 75" WIDTH)**

**EA**

*At the following locations:*

E/S Troutman 135' S/S/C Cypress (SB8988)  
N/E/C Troutman and Seneca (SB48919)  
E/S Troutman 115' N/N/C Woodward (SB61474)  
E/S Troutman 240' N/N/C Woodward (SB61475)  
E/S Troutman 325' N/N/C Woodward (SB65041)  
E/S Troutman 425' N/N/C Woodward (SB61476)  
E/S Willoughby 100' S/S/C Cypress (SB1408)  
S/W/C Cypress and Willoughby (SB9974)  
S/E/C Cypress and Willoughby (SB9975)  
S/E/C Cypress and Suydam (SB9039)  
N/E/C Cypress and Dekalb (SB56732)  
N/E/C Cypress and Stockholm (SB59804)  
N/S Cypress B/W Stockholm and Stanhope (SB69438)  
N/E/C Cypress and Stanhope (SB54777)  
N/S Cypress B/W Stanhope and Himrod (SB37794)  
N/W/C Cypress and Himrod (SB12874)  
N/E/C Cypress and Himrod (SB12875)  
W/S Himrod 40' N/N/C Cypress (M3775)  
W/S Himrod 115' N/N/C Cypress (SB16723)  
N/W/C Himrod and Seneca (M2750)  
C/L Himrod 30' N/N/C Seneca (Tm5771)  
N/W/C Himrod and Onderdonk (M2772)  
N/W/C Himrod and Woodward (M3231)  
N/W/C Himrod and Fairview (M3232)

AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

**Total Quantity for JB 636 EG = 24**

**JB 638 N INSTALLATION OF FIELD CONSTRUCTED UTILITY STRUCTURE**

**CY**

*At the following locations:*

E/S Troutman 190' N/N/C Onderdonk (SB5719)

AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

**Total Quantity for JB 638 N = 1**

**CON EDISON JOINT BIDDING SCOPE OF WORK  
SUPPORT AND PROTECTION  
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CYPRESS AVENUE  
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**JB 638 R      BREAK OUT AND REMOVE UTILITY STRUCTURE      CY**

*At the following locations:*

E/S Troutman 190' N/N/C Onderdonk (SB5719)

AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

**Total Quantity for JB 638 R      =    1**

**JB 803.2      LINE CUT BY PNEUMATIC TOOLS IN LIEU OF SAW CUT ASSOCIATED WITH RDWY REMOVAL      LF**  
**(LINE CUT ASPHALT AND CONCRETE ROADWAY)**

*At the following locations:*

I/O Himrod and Onderdonk (Oil-o)

AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

**Total Quantity for JB 803.2      =    12**

**JB 900      EXTRA UTILITY WORK COSTS ALLOWANCE      FS**

*At the following locations:*

Various

AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

**Total Quantity for JB 900      =    1**

**CON EDISON CONTRACT INCLUSION ANALYSIS  
CITY BID ITEMS ESTIMATED QUANTITIES  
QED1023B  
CYPRESS AVENUE  
BOROUGH OF QUEENS**

<b>CITY BID ITEM NUMBER</b>	<b>DESCRIPTION</b>	<b>UNIT</b>	<b>TOTAL QUANTITY</b>
<b>4.02 AF-R</b>	<b>ASPHALTIC CONCRETE WEARING COURSE, 2" THICK</b>	<b>SY</b>	<b>257</b>
<b>4.02 CA</b>	<b>ASPHALTIC BINDER MIXTURE</b>	<b>TONS</b>	<b>33</b>
<b>4.04 B</b>	<b>CONCRETE BASE, 6" MINIMUM</b>	<b>CY</b>	<b>28</b>

January 10, 2018

**CON EDISON JOINT BIDDING SCOPE OF WORK  
CITY BID ITEMS FOR INCLUSION IN  
QED1023B  
CYPRESS AVENUE  
BOROUGH OF QUEENS**

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**4.02 AF-R ASPHALTIC CONCRETE WEARING COURSE, 2" THICK**

**SY**

*At the following locations:*

S/E/C Cypress and Willoughby (Cb)  
S/E/C Cypress and Suydam (Cb)  
N/E/C Cypress and Suydam (Cb)  
N/E/C Cypress and Hart (Cb)  
N/E/C Cypress and Stockholm (Cb)  
N/E/C Cypress and Stanhope (Cb)  
N/W/C Himrod and Seneca (Cb/4cd)  
N/E/C Himrod and Seneca (Cb/6cd)

**Total Quantity for 4.02 AF-R = 257**

**4.02 CA ASPHALTIC BINDER MIXTURE**

**TONS**

*At the following locations:*

S/E/C Cypress and Willoughby (Cb)  
S/E/C Cypress and Suydam (Cb)  
N/E/C Cypress and Suydam (Cb)  
N/E/C Cypress and Hart (Cb)  
N/E/C Cypress and Stockholm (Cb)  
N/E/C Cypress and Stanhope (Cb)  
N/W/C Himrod and Seneca (Cb/4cd)  
N/E/C Himrod and Seneca (Cb/6cd)

**Total Quantity for 4.02 CA = 33**

**CON EDISON JOINT BIDDING SCOPE OF WORK  
CITY BID ITEMS FOR INCLUSION IN  
QED1023B  
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**4.04 B          CONCRETE BASE, 6" MINIMUM**

**CY**

*At the following locations:*

S/E/C Cypress and Willoughby (Cb)

S/E/C Cypress and Suydam (Cb)

N/E/C Cypress and Suydam (Cb)

N/E/C Cypress and Hart (Cb)

N/E/C Cypress and Stockholm (Cb)

N/E/C Cypress and Stanhope (Cb)

N/W/C Himrod and Seneca (Cb/4cd)

N/E/C Himrod and Seneca (Cb/6cd)

**Total Quantity for 4.04 B = 28**

**JOINT BID WORKSHEET**  
**QED1023B - REPLACEMENT OF TRUNK AND DISTRIBUTION**  
**WATER MAIN IN CYPRESS AVENUE**  
**BOROUGH OF QUEENS**  
**FOR INFORMATION ONLY**  
**ENGINEER'S ESTIMATE OF QUANTITY AND TYPES OF INTERFERENCE**  
**FOR VERIZON**

JOINT BID ITEM NUMBER	DESCRIPTION	Unit of Measure	Estimated Quantity
JB 100.1	UTILITIES CROSSING TRENCH FOR CATCH BASIN CHUTE CONNECT. AND/OR TEST PIT (TYPE .1)	EA.	14
JB 100.2	UTILITIES CROSSING TRENCH FOR CATCH BASIN CHUTE CONNECT. AND/OR TEST PIT (TYPE .2)	EA.	6
JB 100.3	UTILITIES CROSSING TRENCH FOR CATCH BASIN CHUTE CONNECT. AND/OR TEST PIT (TYPE .3)	EA.	3
JB 100.4	UTILITIES CROSSING TRENCH FOR CATCH BASIN CHUTE CONNECT. AND/OR TEST PIT (TYPE .4)	EA.	4
JB 101.1	UTILITIES CROSSING TRENCH FOR SEWERS OVER 12" TO 24" DIAMETER (TYPE .1)	EA.	7
JB 101.2	UTILITIES CROSSING TRENCH FOR SEWERS OVER 12" TO 24" DIAMETER (TYPE .2)	EA.	7
JB 101.3	UTILITIES CROSSING TRENCH FOR SEWERS OVER 12" TO 24" DIAMETER (TYPE .3)	EA.	4
JB 101.4	UTILITIES CROSSING TRENCH FOR SEWERS OVER 12" TO 24" DIAMETER (TYPE .4)	EA.	3
JB 104.1	UTILITIES CROSSING TRENCH FOR SEWERS OVER 48" TO 54" DIAMETER (TYPE .1)	EA.	5
JB 104.2	UTILITIES CROSSING TRENCH FOR SEWERS OVER 48" TO 54" DIAMETER (TYPE .2)	EA.	3
JB 108.1	UTILITIES CROSSING TRENCH FOR WATERMAIN UP TO AND INCL. 12" DIAMETER (TYPE .1)	EA.	18
JB 108.2	UTILITIES CROSSING TRENCH FOR WATERMAIN UP TO AND INCL. 12" DIAMETER (TYPE .2)	EA.	9
JB 108.3	UTILITIES CROSSING TRENCH FOR WATERMAIN UP TO AND INCL. 12" DIAMETER (TYPE .3)	EA.	6
JB 108.4	UTILITIES CROSSING TRENCH FOR WATERMAIN UP TO AND INCL. 12" DIAMETER (TYPE .4)	EA.	3
JB 109.1	UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 12" AND UP TO 24" DIAMETER (TYPE .1)	EA.	12
JB 109.2	UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 12" AND UP TO 24" DIAMETER (TYPE .2)	EA.	4
JB 109.3	UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 12" AND UP TO 24" DIAMETER (TYPE .3)	EA.	4
JB 111.1	UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 36" AND UP TO 48" DIAMETER (TYPE .1)	EA.	5
JB 111.2	UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 36" AND UP TO 48" DIAMETER (TYPE .2)	EA.	6
JB 111.3	UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 36" AND UP TO 48" DIAMETER (TYPE .3)	EA.	5
JB 111.4	UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 36" AND UP TO 48" DIAMETER (TYPE .4)	EA.	4



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JOINT BID ITEM NUMBER	DESCRIPTION	Unit of Measure	Estimated Quantity
JB 113.1	UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 54" AND UP TO 60" DIAMETER (TYPE .1)	EA.	19
JB 113.2	UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 54" AND UP TO 60" DIAMETER (TYPE .2)	EA.	6
JB 113.3	UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 54" AND UP TO 60" DIAMETER (TYPE .3)	EA.	4
JB 200	EXTRA DEPTH EXCAVATION OF CATCH BASIN CHUTE CONNECTION PIPES	L.F.	100
JB 225	INSTALLATION AND REMOVAL OF CATCH BASINS WITH UTILITY INTERFERENCES	EA.	5
JB 226	INSTALLATION OF CATCH BASINS WITH INTERFERENCES	EA.	3
JB 300	SPECIAL CARE EXCAVATION & BACKFILLING	C.Y.	193
JB 330T1	SUPPORT & PROTECTION OF COMMUNICATION UTILITY FACILITIES DURING EXCAVATION OF CITY TRENCH WHEN PARALLELING	L.F.	580
JB 330T2.1	COMMUNICATION FACILITY OPERATOR(S) REQUESTS THE TRENCH BE WIDENED	L.F.	100
JB 330T2.2	COMMUNICATION FACILITY OPERATOR(S) REQUESTS THE TRENCH AND/OR SHEETING BE MODIFIED	L.F.	100
JB 350T	OVERHEAD ACCOMMODATION, PROTECTION OF OVERHEAD FACILITIES, POLES AND APPURTENANCES	L.S.	1
JB 400	TEST PITS FOR UTILITY FACILITIES	C.Y.	20
JB 401	TRENCH EXCAVATION FOR ADJUSTMENT OF UTILITIES	C.Y.	996
JB 402T.1	EXISTING OCCUPIED CONCRETE ENCASED NON-STEEL/IRON CONDUITS PLACED IN FINAL POSITION WITHOUT CONCRETE ENCASEMENT	L.F.	200
JB 402T.1A	EXISTING OCCUPIED CONCRETE ENCASED NON-STEEL/IRON CONDUITS PLACED IN FINAL POSITION WITH CONCRETE ENCASEMENT	L.F.	200
JB 402T.V1A	EXISTING VACANT CONCRETE ENCASED CONDUITS PLACED IN FINAL POSITION WITH CONCRETE ENCASEMENT.	L.F.	200
JB 402T.2	EXISTING OCCUPIED NON-CONCRETE ENCASED NON-STEEL/IRON CONDUITS PLACED IN FINAL POSITION WITHOUT CONCRETE ENCASEMENT	L.F.	200
JB 402T.2A	EXISTING OCCUPIED NON-CONCRETE ENCASED NON-STEEL/IRON CONDUITS PLACED IN FINAL POSITION WITH CONCRETE ENCASEMENT	L.F.	8619

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JOINT BID ITEM NUMBER	DESCRIPTION	Unit of Measure	Estimated Quantity
JB 402T.V2A	EXISTING VACANT NON-CONCRETE ENCASED CONDUITS PLACED IN FINAL POSITION WITH CONCRETE ENCASEMENT.	L.F.	1764
JB 403T.2	PLACING STEEL PROTECTION PLATES FOR UTILITIES FACILITIES	S.F.	200
JB 405.1	TRENCH EXCAVATION FOR INSTALLATION OF UTILITY FACILITIES.	C.Y.	100
JB 405.2	TRENCH EXCAVATION FOR INSTALLATION OF UTILITY FACILITIES.	C.Y.	120
JB 500	REMOVAL OF ABANDONED UTILITY CONDUITS (NON-CONCRETE ENCASED)	L.F.	1047
JB 501.0	REMOVAL OF ABANDONED MASONRY FOR ELECTRIC AND TEL. FACILITIES	C.Y.	20
JB 603T.1	INSTALL 1-EA. 2", 4" OR 1-1/4" QUAD CONDUIT (PVC OR STEEL) IN ANY COMBINATION	L.F.	200
JB 603T.3	INSTALL 4-EA. 4" OR 1-1/4" QUAD CONDUIT (PVC OR STEEL) IN ANY COMBINATION	L.F.	200
JB 603T.5	INSTALL 8-EA. 4" OR 1-1/4" QUAD CONDUIT (PVC OR STEEL) IN ANY COMBINATION	L.F.	200
JB 636 EE	ADJUSTMENT OF UTILITY HARWARE ( 34" TO UNDER 41" WIDTH )	EA.	4
JB 636 ME	MODIFICATION OF METHODS TO ACCOMMODATE UTILITY STREET HARDWARE DURING PAVEMENT MILLING AND RESURFACING	EA.	4
JB 636 R	REPAIR TO UTILITY STRUCTURES	C.Y.	10
JB 638 N	INSTALLATION OF FIELD CONSTRUCTED UILITY STRUCTURES	C.Y.	10
JB 638 R	BREAK OUT AND REMOVE UTILITY STRUCTURE	C.Y.	10
JB 700.0	SPECIAL MODIFICATION OF WORK METHODS TO ACCOMMODATE / PROTECT UNDERGROUND FACILITIES WITH LIMITED COVER	C.Y.	238
JB 710.1	REM. OF ABND. UTILITY STEEL/CAST IRON PIPE, UP TO & INCL. 12" DIAM. PIPES	L.F.	100
JB 711	USE SHEETING LINE AS FORM	L.F.	196
JB 798	MODIFICATION OF NON CONCRETE YOKE TROLLEY STRUCTURES REMOVAL WHEN CROSSING UTILITY FACILITIES	L.F.	200
JB 799	MODIFICATION OF NON CONCRETE TROLLEY STRUCTURES REMOVAL PARALLEL TO UTILITY FACILITIES	L.F.	200
JB 803.2	LINE CUT BY PNEUMATIC TOOLS IN LIEU OF SAW CUT ASSOCIATED WITH ROADWAY REMOVAL OPERATIONS	L.F.	200
JB 900	EXTRA UTILITY WORK ALLOWANCE	F.S.	1

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<b>JB 100.1</b>	<b>UTILITIES CROSSING TRENCH FOR CATCH BASIN CHUTE CONNECT. AND/OR TEST PIT (TYPE .1)</b>	<b>EA.</b>
	At the following locations:	
	S/S OF CYPRESS AVENUE, E/O SUYDAM STREET	1
	S/S OF CYPRESS AVENUE, E/O HART STREET	1
	N/S OF CYPRESS AVENUE, W/O DEKALB AVENUE	2
	S/S OF SENECA AVENUE, E/O HIMROD STREET	2
	S/S OF SENECA AVENUE, W/O HIMROD STREET	2
	S/S OF WOODWARD AVENUE, E/O HIMROD STREET	1
	INT. OF HIMROD STREET AND FAIRVIEW AVENUE	1
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	4
	Total quantity for JB 100.1 =	14
<b>JB 100.2</b>	<b>UTILITIES CROSSING TRENCH FOR CATCH BASIN CHUTE CONNECT. AND/OR TEST PIT (TYPE .2)</b>	<b>EA.</b>
	At the following locations:	
	INT. OF CYPRESS AVENUE AND WILLOUGHBY AVENUE	1
	INT. OF HIMROD STREET AND WOODWARD AVENUE	1
	S/S OF FAIRVIEW AVENUE, E/O HIMROD STREET	1
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	3
	Total quantity for JB 100.2 =	6
<b>JB 100.3</b>	<b>UTILITIES CROSSING TRENCH FOR CATCH BASIN CHUTE CONNECT. AND/OR TEST PIT (TYPE .3)</b>	<b>EA.</b>
	At the following locations:	
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	3
	Total quantity for JB 100.3 =	3.00
<b>JB 100.4</b>	<b>UTILITIES CROSSING TRENCH FOR CATCH BASIN CHUTE CONNECT. AND/OR TEST PIT (TYPE .4)</b>	<b>EA.</b>
	At the following locations:	
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	4
	Total quantity for JB 100.4 =	4

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<b>JB 101.1</b>	<b>UTILITIES CROSSING TRENCH FOR SEWERS OVER 12" TO 24" DIAMETER (TYPE .1)</b>	<b>EA.</b>
	At the following locations:	
	INT. OF CYPRESS AVENUE AND STOCKHOLM STREET	1
	MID. OF HIMROD STREET, S/O FAIRVIEW AVENUE	1
	INT. OF HIMROD STREET AND FAIRVIEW AVENUE	1
	ALONG HIMROD STREET BETWEEN WOODWARD AVENUE AND FAIRVIEW AVENUE	1
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	3
	Total quantity for JB 101.1 =	7
<b>JB 101.2</b>	<b>UTILITIES CROSSING TRENCH FOR SEWERS OVER 12" TO 24" DIAMETER (TYPE .2)</b>	<b>EA.</b>
	At the following locations:	
	INT. OF CYPRESS AVENUE AND STANHOPE STREET	1
	MID. OF STANHOPE STREET, S/O CYPRESS AVENUE	1
	INT. OF WOODWARD AVENUE AND HIMROD STREET	1
	INT. OF HIMROD STREET AND FAIRVIEW AVENUE	1
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	3
	Total quantity for JB 101.2 =	7
<b>JB 101.3</b>	<b>UTILITIES CROSSING TRENCH FOR SEWERS OVER 12" TO 24" DIAMETER (TYPE .3)</b>	<b>EA.</b>
	At the following locations:	
	MID. OF HIMROD STREET, S/O ONDERDONK AVENUE	1
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	3
	Total quantity for JB 101.3 =	4
<b>JB 101.4</b>	<b>UTILITIES CROSSING TRENCH FOR SEWERS OVER 12" TO 24" DIAMETER (TYPE .4)</b>	<b>EA.</b>
	At the following locations:	
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	3
	Total quantity for JB 101.4 =	3
<b>JB 104.1</b>	<b>UTILITIES CROSSING TRENCH FOR SEWERS OVER 48" TO 54" DIAMETER (TYPE .1)</b>	<b>EA.</b>
	At the following locations:	
	INT. OF HIMROD STREET AND SENECA AVENUE	2
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	3
	Total quantity for JB 104.1 =	5
<b>JB 104.2</b>	<b>UTILITIES CROSSING TRENCH FOR SEWERS OVER 48" TO 54" DIAMETER (TYPE .2)</b>	<b>EA.</b>
	At the following locations:	
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	3
	Total quantity for JB 104.2 =	3

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<b>JB 108.1</b>	<b>UTILITIES CROSSING TRENCH FOR WATERMAIN UP TO AND INCL. 12" DIAMETER (TYPE .1)</b>	<b>EA.</b>
	At the following locations:	
	N/S OF CYPRESS AVENUE, E/O WILLOUGHBY AVENUE	2
	INT. OF CYPRESS AVENUE AND SUYDAM STREET	1
	N/S OF CYPRESS AVENUE, W/O HART STREET	1
	INT. OF CYPRESS AVENUE AND HART STREET	1
	N/S OF CYPRESS AVENUE, W/O DEKALB AVENUE	1
	INT. OF CYPRESS AVENUE AND DEKALB AVENUE	3
	N/E/C OF CYPRESS AVENUE AND DEKALB AVENUE	1
	N/S OF CYPRESS AVENUE BTWN. DEKALB AVENUE AND STOCKHOLM STREET	2
	INT. OF CYPRESS AVENUE AND STOCKHOLM STREET	1
	INT. OF HIMROD STREET AND SENECA AVENUE	1
	W/S OF HIMROD STREET, N/O FAIRVIEW AVENUE	1
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	3
	Total quantity for JB 108.1 =	18
<b>JB 108.2</b>	<b>UTILITIES CROSSING TRENCH FOR WATERMAIN UP TO AND INCL. 12" DIAMETER (TYPE .2)</b>	<b>EA.</b>
	At the following locations:	
	W/S TROUTMAN STREET S/O ONDERDONK AVENUE	1
	INT. OF CYPRESS AVENUE AND WILLOUGHBY STREET	1
	INT. OF CYPRESS AVENUE AND SUYDAM STREET	1
	W/S OF WILLOUGHBY AVENUE, S/O CYPRESS AVENUE	1
	INT. OF CYPRESS AVENUE AND HIMROD STREET	2
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	3
	Total quantity for JB 108.2 =	9
<b>JB 108.3</b>	<b>UTILITIES CROSSING TRENCH FOR WATERMAIN UP TO AND INCL. 12" DIAMETER (TYPE .3)</b>	<b>EA.</b>
	At the following locations:	
	E/S OF TROUTMAN STREET, S/O ONDERDONK AVENUE	1
	W/S TROUTMAN STREET S/O ONDERDONK AVENUE	1
	W/S OF HIMROD STREET, S/O ONDERDONK AVENUE	1
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	3
	Total quantity for JB 108.3 =	6
<b>JB 108.4</b>	<b>UTILITIES CROSSING TRENCH FOR WATERMAIN UP TO AND INCL. 12" DIAMETER (TYPE .4)</b>	<b>EA.</b>
	At the following locations:	
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	3
	Total quantity for JB 108.4 =	3

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<b>JB 109.1</b>	<b>UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 12" AND UP TO 24" DIAMETER (TYPE .1)</b>	<b>EA.</b>
	At the following locations:	
	N/S OF CYPRESS AVENUE, E/O WILLOUGHBY AVENUE	2
	N/S OF CYPRESS AVENUE, W/O HART STREET	1
	INT. OF CYPRESS AVENUE AND DEKALB AVENUE	3
	N/E/C OF CYPRESS AVENUE AND DEKALB AVENUE	1
	N/S OF CYPRESS AVENUE, W/O STOCKHOLM STREET	1
	INT. OF CYPRESS AVENUE AND STOCKHOLM STREET	1
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	3
	Total quantity for JB 109.1 =	12
<b>JB 109.2</b>	<b>UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 12" AND UP TO 24" DIAMETER (TYPE .2)</b>	<b>EA.</b>
	At the following locations:	
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	4
	Total quantity for JB 109.2 =	4
<b>JB 109.3</b>	<b>UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 12" AND UP TO 24" DIAMETER (TYPE .3)</b>	<b>EA.</b>
	At the following locations:	
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	4
	Total quantity for JB 109.3 =	4
<b>JB 111.1</b>	<b>UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 36" AND UP TO 48" DIAMETER (TYPE .1)</b>	<b>EA.</b>
	At the following locations:	
	INT. OF TROUTMAN STREET AND CYPRESS AVENUE	1
	W/S OF TROUTMAN STREET, S/O CYPRESS AVENUE	1
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	3
	Total quantity for JB 111.1 =	5
<b>JB 111.2</b>	<b>UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 36" AND UP TO 48" DIAMETER (TYPE .2)</b>	<b>EA.</b>
	At the following locations:	
	W/S OF TROUTMAN STREET, S/O CYPRESS AVENUE	1
	INT. OF TROUTMAN STREET AND ONDERDONK AVENUE	1
	W/S OF TROUTMAN STREET, S/O ONDERDONK AVENUE	1
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	3
	Total quantity for JB 111.2 =	6

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<b>JB 111.3</b>	<b>UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 36" AND UP TO 48" DIAMETER (TYPE .3)</b>	<b>EA.</b>
	At the following locations:	
	INT. OF TROUTMAN STREET AND CYPRESS AVENUE	1
	W/S OF TROUTMAN STREET, S/O ONDERDONK AVENUE	1
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	3
	Total quantity for JB 111.3 =	5
<b>JB 111.4</b>	<b>UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 36" AND UP TO 48" DIAMETER (TYPE .4)</b>	<b>EA.</b>
	At the following locations:	
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	4
	Total quantity for JB 111.4 =	4
<b>JB 113.1</b>	<b>UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 54" AND UP TO 60" DIAMETER (TYPE .1)</b>	<b>EA.</b>
	At the following locations:	
	S/S OF CYPRESS AVENUE/ E/O WILLOUGHBY AVENUE	2
	INT. OF CYPRESS AVENUE AND SUYDAM STREET	1
	S/S OF CYPRESS AVENUE, E/O SUYDAM STREET	1
	S/S OF CYPRESS AVEUE, W/O HART STREET	2
	S/S OF CYPRESS AVENUE, W/O DEKALB AVENUE	1
	N/S OF CYPRESS AVENUE BTWN. DEKALB AVENUE AND STOCKHOLM STREET	1
	S/S OF CYPRESS AVENUE, E/O STOCKHOLM STREET	2
	S/S OF CYPRESS AVENUE, E/O STANHOPE STREET	1
	S/S OF CYPRESS AVENUE, W/O STANHOPE STREET	1
	INT. OF HIMROD STREET AND SENECA AVENUE	2
	INT. OF HIMROD STREET AND WOODWARD AVENUE	1
	E/S OF HIMROD STREET, S/O FAIRVIEW AVENUE	1
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	3
	Total quantity for JB 113.1 =	19
<b>JB 113.2</b>	<b>UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 54" AND UP TO 60" DIAMETER (TYPE .2)</b>	<b>EA.</b>
	At the following locations:	
	W/S OF WILLOUGHBY AVENUE, S/O CYPRESS AVENUE	1
	S/S OF CYPRESS AVENUE, W/O HIMROD STREET	1
	INT. OF HIMROD STREET AND FAIRVIEW AVENUE	1
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	3
	Total quantity for JB 113.2 =	6
<b>JB 113.3</b>	<b>UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 54" AND UP TO 60" DIAMETER (TYPE .3)</b>	<b>EA.</b>
	At the following locations:	
	E/S OF HIMROD STREET, S/O ONDERDONK AVENUE	1
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	3
	Total quantity for JB 113.3 =	4

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<b>JB 200</b>	<b>EXTRA DEPTH EXCAVATION OF CATCH BASIN CHUTE CONNECTION PIPES</b>	<b>L.F.</b>
	At the following locations:	
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	100
	Total quantity for JB 200 =	100
<b>JB 225</b>	<b>INSTALLATION AND REMOVAL OF CATCH BASINS WITH UTILITY INTERFERENCES</b>	<b>EA.</b>
	At the following locations:	
	W/S OF TROUTMAN STREET, S/O ONDERDONK AVENUE	1
	W/S OF TROUTMAN STREET, S/O WOODWARD AVENUE	1
	S/S OF CYPRESS AVENUE, E/O WILLOUGHBY AVENUE	1
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	2
	Total quantity for JB 225 =	5
<b>JB 226</b>	<b>INSTALLATION OF CATCH BASINS WITH INTERFERENCES</b>	<b>EA.</b>
	At the following locations:	
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	3
	Total quantity for JB 226 =	3
<b>JB 300</b>	<b>SPECIAL CARE EXCAVATION &amp; BACKFILLING</b>	<b>C.Y.</b>
	At the following locations:	
	S/S OF CYPRESS AVENUE, E/O HART STREET	6
	N/S OF CYPRESS AVENUE, W/O DEKALB AVENUE	6
	E/S OF HIMROD STREET BETWEEN FAIRVIEW AVENUE AND WOODWARD AVENUE	78
	INT. OF HIMROD STREET AND FAIRVIEW AVENUE	3
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	100
	Total quantity for JB 300 =	193
<b>JB 330T1</b>	<b>SUPPORT &amp; PROTECTION OF COMMUNICATION UTILITY FACILITIES DURING EXCAVATION OF CITY TRENCH WHEN PARALLELING COMMUNICATION FACILITIES LIE COMPLETELY IN THE PROPOSED CITY TRENCH</b>	<b>L.F.</b>
	At the following locations:	
	W/S OF TROUTMAN STREET, N/O SENECA AVENUE	5
	E/S OF TROUTMAN STREET, S/O ONDERDONK AVENUE	25
	S/S OF CYPRESS AVENUE, E/O STOCKHOLM STREET	155
	INT. OF HIMROD STREET AND SENECA AVENUE	55
	S/S OF FAIRVIEW AVENUE, E/O HIMROD STREET	10
	INT. OF HIMROD STREET AND FAIRVIEW AVENUE	30
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	300
	Total quantity for JB 330T1 =	580



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<b>JB 330T2.1</b>	<b>COMMUNICATION FACILITY OPERATOR(S) REQUESTS THE TRENCH BE WIDENED</b>	<b>L.F.</b>
	At the following locations:	
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	100
	Total quantity for JB 330T2.1 =	100
<b>JB 330T2.2</b>	<b>COMMUNICATION FACILITY OPERATOR(S) REQUESTS THE TRENCH AND/OR SHEETING BE MODIFIED</b>	<b>L.F.</b>
	At the following locations:	
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	100
	Total quantity for JB 330T2.2 =	100
<b>JB 350T</b>	<b>OVERHEAD ACCOMMODATION, PROTECTION OF OVERHEAD FACILITIES, POLES AND APPURTENANCES</b>	<b>L.S.</b>
	At the following locations:	
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	1
	Total quantity for JB 350T =	1
<b>JB 400</b>	<b>TEST PITS FOR UTILITY FACILITIES</b>	<b>C.Y.</b>
	At the following locations:	
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	20
	Total quantity for JB 400 =	20
<b>JB 401</b>	<b>TRENCH EXCAVATION FOR ADJUSTMENT OF UTILITIES</b>	<b>C.Y.</b>
	At the following locations:	
	INT. OF TROUTMAN STREET AND CYPRESS AVENUE	24
	S/W/C TO S/E/C OF TROUTMAN STREET AND ONDERDONK AVENUE S/O ONDERDONK AVENUE	75
	W/S TROUTMAN STREET S/O WOODWARD AVENUE (SIDEWALK)	47
	INT. OF CYPRESS AVENUE AND WILLOUGHBY STREET	12
	S/S OF CYPRESS AVENUE, W/O SUYDAM STREET	70
	S/S OF CYPRESS AVENUE, E/O SUYDAM STREET	96
	N/S OF CYPRESS AVENUE, E/O HART STREET	120
	S/S OF CYPRESS AVENUE, E/O HART STREET	22
	MID. OF CYPRESS AVENUE, E/O DEKALB AVENUE	54
	INT. OF CYPRESS AVENUE AND DEKALB AVENUE	17
	N/S OF CYPRESS AVENUE, E/O DEKALB AVENUE	78
	N/S OF CYPRESS AVENUE, W/O STOCKHOLM STREET	75
	W/S OF STOCKHOLM STREET, S/O CYPRESS AVENUE	28
	W/S OF STANHOPE STREET, S/O CYPRESS AVENUE	28
	S/S OF CYPRESS AVENUE, W/O HIMROD STREET	20
	INT. OF HIMROD STREET AND CYPRESS AVENUE	105
	INT. OF HIMROD STREET AND SENECA AVENUE	27
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	100
	Total quantity for JB 401 =	996

**VERIZON JOINT BIDDING SCOPE OF WORK**  
**SUPPORT & PROTECTION**  
**OED1023B - REPLACEMENT OF TRUNK AND DISTRIBUTION**  
**WATER MAIN IN CYPRESS AVENUE**  
**BOROUGH OF QUEENS**

<b>JB 402T.1</b>	<b>EXISTING OCCUPIED CONCRETE ENCASED NON-STEEL/IRON CONDUITS PLACED IN FINAL POSITION WITHOUT CONCRETE ENCASEMENT</b>	<b>L.F.</b>
	At the following locations:	
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	200
	Total quantity for JB 402T.1 = 200	
<b>JB 402T.1A</b>	<b>EXISTING OCCUPIED CONCRETE ENCASED NON-STEEL/IRON CONDUITS PLACED IN FINAL POSITION WITH CONCRETE ENCASEMENT</b>	<b>L.F.</b>
	At the following locations:	
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	200
	Total quantity for JB 402T.1A = 200	
<b>JB 402T.V1A</b>	<b>EXISTING VACANT CONCRETE ENCASED CONDUITS PLACED IN FINAL POSITION WITH CONCRETE ENCASEMENT.</b>	<b>L.F.</b>
	At the following locations:	
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	200
	Total quantity for JB 402T.V1A = 200	
<b>JB 402T.2</b>	<b>EXISTING OCCUPIED NON-CONCRETE ENCASED NON-STEEL/IRON CONDUITS PLACED IN FINAL POSITION WITHOUT CONCRETE ENCASEMENT</b>	<b>L.F.</b>
	At the following locations:	
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	200
	Total quantity for JB 402T.2 = 200	
<b>JB 402T.2A</b>	<b>EXISTING OCCUPIED NON-CONCRETE ENCASED NON-STEEL/IRON CONDUITS PLACED IN FINAL POSITION WITH CONCRETE ENCASEMENT</b>	<b>L.F.</b>
	At the following locations:	
	W/S OF TROUTMAN STREET, N/O CYPRESS AVENUE	1728
	INT. OF TROUTMAN STREET AND CYPRESS AVENUE	90
	S/W/C TO S/E/C OF TROUTMAN STREET AND ONDERDONK AVENUE S/O ONDERDONK AVENUE	1152
	W/S TROUTMAN STREET S/O WOODWARD AVENUE (SIDEWALK)	546
	INT. OF CYPRESS AVENUE AND WILLOUGHBY STREET	200
	S/S OF CYPRESS AVENUE, W/O SUYDAM STREET	560
	S/S OF CYPRESS AVENUE, E/O SUYDAM STREET	160
	N/S OF CYPRESS AVENUE, E/O HART STREET	180
	S/S OF CYPRESS AVENUE, E/O HART STREET	210
	MID. OF CYPRESS AVENUE, E/O DEKALB AVENUE	240

**VERIZON JOINT BIDDING SCOPE OF WORK**  
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**WATER MAIN IN CYPRESS AVENUE**  
**BOROUGH OF QUEENS**

INT. OF CYPRESS AVENUE AND DEKALB AVENUE	60
N/S OF CYPRESS AVENUE, E/O DEKALB AVENUE	148
N/S OF CYPRESS AVENUE, W/O STOCKHOLM STREET	135
W/S OF STOCKHOLM STREET, S/O CYPRESS AVENUE	150
W/S OF STANHOPE STREET, S/O CYPRESS AVENUE	150
S/S OF CYPRESS AVENUE, W/O HIMROD STREET	240
INT. OF HIMROD STREET AND CYPRESS AVENUE	520
INT. OF HIMROD STREET AND SENECA AVENUE	150
AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	2000

Total quantity for JB 402T.2A = 8619

**JB 402T.V2A      EXISTING VACANT NON-CONCRETE ENCASED CONDUITS PLACED IN FINAL POSITION WITH CONCRETE ENCASEMENT.      L.F.**

At the following locations:

INT. OF TROUTMAN STREET AND CYPRESS AVENUE	30
W/S OF TROUTMAN STREET, N/O CYPRESS AVENUE	480
S/W/C TO S/E/C OF TROUTMAN STREET AND ONDERDONK AVENUE S/O ONDERDONK AVENUE	288
W/S TROUTMAN STREET S/O WOODWARD AVENUE (SIDEWALK)	126
INT. OF CYPRESS AVENUE AND WILLOUGHBY STREET	40
S/S OF CYPRESS AVENUE, E/O HART STREET	60
MID. OF CYPRESS AVENUE, E/O DEKALB AVENUE	60
W/S OF STOCKHOLM STREET, S/O CYPRESS AVENUE	30
W/S OF STANHOPE STREET, S/O CYPRESS AVENUE	30
S/S OF CYPRESS AVENUE, W/O HIMROD STREET	60
INT. OF HIMROD STREET AND CYPRESS AVENUE	130
INT. OF HIMROD STREET AND SENECA AVENUE	30
AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	400

Total quantity for JB 402T.V2A = 1764

**JB 403T.2      PLACING STEEL PROTECTION PLATES FOR UTILITIES FACILITIES      S.F.**

At the following locations:

AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	200
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Total quantity for JB 403T.2 = 200

**JB 405.1      TRENCH EXCAVATION FOR INSTALLATION OF UTILITY FACILITIES.      C.Y.**

At the following locations:

AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	100
--	-----

Total quantity for JB 405.1 = 100

**JB 405.2      TRENCH EXCAVATION FOR INSTALLATION OF UTILITY FACILITIES.      C.Y.**

At the following locations:

AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	120
--	-----

Total quantity for JB 405.2 = 120

**VERIZON JOINT BIDDING SCOPE OF WORK**  
**SUPPORT & PROTECTION**  
**QED1023B - REPLACEMENT OF TRUNK AND DISTRIBUTION**  
**WATER MAIN IN CYPRESS AVENUE**  
**BOROUGH OF QUEENS**

<b>JB 500</b>	<b>REMOVAL OF ABANDONED UTILITY CONDUITS (NON-CONCRETE ENCASED)</b>	<b>L.F.</b>
	At the following locations:	
	S/S OF CYPRESS AVENUE, W/O HART STREET	190
	N/S OF CYPRESS AVENUE BETWEEN DEKALB AVENUE AND STOCKHOLM STREET	379
	INT. OF STANHOPE STREET AND CYPRESS AVENUE	15
	S/S OF CYPRESS AVENUE, W/O STANHOPE STREET	5
	S/S OF CYPRESS AVENUE, E/O STOCKHOLM STREET	50
	INT. OF HIMROD STREET AND CYPRESS AVENUE	83
	S/S OF FAIRVIEW AVENUE, E/O HIMROD STREET	5
	INT. OF HIMROD STREET AND FAIRVIEW AVENUE	20
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	300
	Total quantity for JB 500 = 1047	
<b>JB 501.0</b>	<b>REMOVAL OF ABANDONED MASONRY FOR ELECTRIC AND TEL. FACILITIES</b>	<b>C.Y.</b>
	At the following locations:	
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	20
	Total quantity for JB 501.0 = 20	
<b>JB 603T.1</b>	<b>INSTALL 1-EA. 2", 4" OR 1-1/4" QUAD CONDUIT (PVC OR STEEL) IN ANY COMBINATION</b>	<b>L.F.</b>
	At the following locations:	
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	200
	Total quantity for JB 603T.1 = 200	
<b>JB 603T.3</b>	<b>INSTALL 4-EA. 4" OR 1-1/4" QUAD CONDUIT (PVC OR STEEL) IN ANY COMBINATION</b>	<b>L.F.</b>
	At the following locations:	
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	200
	Total quantity for JB 603T.3 = 200	
<b>JB 603T.5</b>	<b>INSTALL 8-EA. 4" OR 1-1/4" QUAD CONDUIT (PVC OR STEEL) IN ANY COMBINATION</b>	<b>L.F.</b>
	At the following locations:	
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	200
	Total quantity for JB 603T.5 = 200	
<b>JB 636 EE</b>	<b>ADJUSTMENT OF UTILITY HARWARE ( 34" TO UNDER 41" WIDTH )</b>	<b>EA.</b>
	At the following locations:	
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	4
	Total quantity for JB 636 EE = 4	

**VERIZON JOINT BIDDING SCOPE OF WORK**  
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**QED1023B - REPLACEMENT OF TRUNK AND DISTRIBUTION**  
**WATER MAIN IN CYPRESS AVENUE**  
**BOROUGH OF QUEENS**

<b>JB 636 ME</b>	<b>MODIFICATION OF METHODS TO ACCOMMODATE UTILITY STREET HARDWARE DURING PAVEMENT</b>	<b>EA.</b>
	At the following locations:	
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	4
	Total quantity for JB 636 ME =	4
<b>JB 636 R</b>	<b>REPAIR TO UTILITY STRUCTURES</b>	<b>C.Y.</b>
	At the following locations:	
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	10
	Total quantity for JB 636 R =	10
<b>JB 638 N</b>	<b>INSTALLATION OF FIELD CONSTRUCTED UTILITY STRUCTURES</b>	<b>C.Y.</b>
	At the following locations:	
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	10
	Total quantity for JB 638 N =	10
<b>JB 638 R</b>	<b>BREAK OUT AND REMOVE UTILITY STRUCTURE</b>	<b>C.Y.</b>
	At the following locations:	
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	10
	Total quantity for JB 638 R =	10
<b>JB 700.0</b>	<b>SPECIAL MODIFICATION OF WORK METHODS TO ACCOMMODATE / PROTECT UNDERGROUND FACILITIES WITH LIMITED COVER</b>	<b>C.Y.</b>
	At the following locations:	
	W/S OF TROUTMAN STREET, N/O SENECA AVENUE	19
	W/S OF TROUTMAN STREET, S/O ONDERDONK AVENUE	19
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	200
	Total quantity for JB 700.0 =	238
<b>JB 710.1</b>	<b>REM. OF ABND. UTILITY STEEL/CAST IRON PIPE, UP TO &amp; INCL. 12" DIAM. PIPES</b>	<b>L.F.</b>
	At the following locations:	
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	100
	Total quantity for JB 710.1 =	100

**VERIZON JOINT BIDDING SCOPE OF WORK**  
**SUPPORT & PROTECTION**  
**OED1023B - REPLACEMENT OF TRUNK AND DISTRIBUTION**  
**WATER MAIN IN CYPRESS AVENUE**  
**BOROUGH OF QUEENS**

<b>JB 711</b>	<b>USE SHEETING LINE AS FORM</b>	<b>L.F.</b>
	At the following locations:	
	INT. OF TROUTMAN STREET AND ONDERDONK AVENUE	11
	S/S OF CYPRESS AVENUE, E/O SUYDAM STREET	25
	N/S OF CYPRESS AVENUE, E/O DEKALB AVENUE	15
	S/S OF CYPRESS AVENUE, E/O STOCKHOLM STREET	15
	W/S OF HIMROD STREET, S/O FAIRVIEW AVENUE	30
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	100
	Total quantity for JB 711 =	196
<b>JB 798</b>	<b>MODIFICATION OF NON CONCRETE YOKE TROLLEY STRUCTURES REMOVAL WHEN CROSSING UTILITY</b>	<b>L.F.</b>
	At the following locations:	
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	200
	Total quantity for JB 798 =	200
<b>JB 799</b>	<b>MODIFICATION OF NON CONCRETE TROLLEY STRUCTURES REMOVAL PARALLEL TO UTILITY FACILITIES</b>	<b>L.F.</b>
	At the following locations:	
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	200
	Total quantity for JB 799 =	200
<b>JB 803.2</b>	<b>LINE CUT BY PNEUMATIC TOOLS IN LIEU OF SAW CUT ASSOCIATED WITH ROADWAY REMOVAL OPERATIONS</b>	<b>L.F.</b>
	At the following locations:	
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	200
	Total quantity for JB 803.2 =	200
<b>JB 900</b>	<b>EXTRA UTILITY WORK ALLOWANCE</b>	<b>F.S.</b>
	At the following locations:	
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	1
	Total quantity for JB 900 =	1

**UTILITY CONTRACT INCLUSION ANALYSIS**  
**BID ITEM ACCOMMODATION**  
**QED1023B - REPLACEMENT OF TRUNK AND DISTRIBUTION**  
**WATER MAIN IN CYPRESS AVENUE**  
**BOROUGH OF QUEENS**

**FOR INFORMATION ONLY**  
**ENGINEER'S ESTIMATE OF QUANTITY AND TYPES OF INTERFERENCE**  
**FOR VERIZON**

CET ITEM NUMBER	DESCRIPTION	Unit of Measure	Estimated Quantity
4.02 CA	BINDER MIXTURE	TONS.	149
4.04H	CONCRETE BASE FOR PAVEMENT 9", VARIABLE THICKNESS, FOR TRENCH RESTORATION (HIGH EARLY STRENGTH)	C.Y.	21
4.13AAS	4" CONCRETE SIDEWALK (UNPIGMENTED)	S.F.	510
6.02 AAN	UNCLASSIFIED EXCAVATION	C.Y.	34
6.55	SAWCUTTING EXISTING PAVEMENT	L.F.	486
60.11R612	FURNISHING AND DELIVERING 12" DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 56)	L.F.	5
60.11R520	FURNISHING AND DELIVERING 20" DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 55)	L.F.	10
60.12D12	LAYING 12" DUCTILE IRON PIPE AND FITTINGS	L.F.	10
60.12D20	LAYING 20" DUCTILE IRON PIPE AND FITTINGS	L.F.	15
60.13M0A24	FURNISHING AND DELIVERING DUCTILE IRON MECHANICAL JOINT FITTINGS 24 INCH DIAMETER AND SMALLER, INCLUDING WEDGE	TONS	4
70.81CB	CLEAN BACKFILL	C.Y.	6
8.02A	SPECIAL CARE EXCAVATION AND RESTORATION FOR SIDEWALK WORK	S.F.	400
8.02B	SPECIAL CARE EXCAVATION AND RESTORATION FOR CURB WORK	L.F.	200

**UTILITY INCLUSION SCOPE OF WORK**  
**BID ITEM ACCOMMODATION**  
**QED1023B - REPLACEMENT OF TRUNK AND DISTRIBUTION**  
**WATER MAIN IN CYPRESS AVENUE**  
**BOROUGH OF QUEENS**

**4.02 CA      BINDER MIXTURE      TONS.**

At the following locations:

INT. OF TROUTMAN STREET AND CYPRESS AVENUE  
W/S OF TROUTMAN STREET, N/O CYPRESS AVENUE  
S/W/C TO S/E/C OF TROUTMAN STREET AND ONDERDONK AVENUE S/O ONDERDONK AVENUE  
S/S OF CYPRESS AVENUE, W/O SUYDAM STREET  
S/W/C OF TROUTMAN STREET AND WOODWARD AVENUE  
S/S OF CYPRESS AVENUE, E/O SUYDAM STREET  
N/S OF CYPRESS AVENUE, E/O HART STREET  
S/S OF CYPRESS AVENUE, E/O HART STREET  
MID. OF CYPRESS AVENUE, E/O DEKALB AVENUE  
INT. OF CYPRESS AVENUE AND DEKALB AVENUE  
N/S OF CYPRESS AVENUE, E/O DEKALB AVENUE  
N/S OF CYPRESS AVENUE, W/O STOCKHOLM STREET  
W/S OF STOCKHOLM STREET, S/O CYPRESS AVENUE  
W/S OF STANHOPE STREET, S/O CYPRESS AVENUE  
S/S OF CYPRESS AVENUE, W/O HIMROD STREET  
INT. OF HIMROD STREET AND CYPRESS AVENUE  
INT. OF HIMROD STREET AND SENECA AVENUE  
INT. OF HIMROD STREET AND ONDERDONK AVENUE

Total quantity for                      4.02 CA                      =                      149

**4.04H      CONCRETE BASE FOR PAVEMENT 9", VARIABLE THICKNESS, FOR TRENCH RESTORATION (HIGH EARLY STRENGTH)      C.Y.**

At the following locations:

INT. OF TROUTMAN STREET AND CYPRESS AVENUE  
W/S OF TROUTMAN STREET, N/O CYPRESS AVENUE  
S/W/C TO S/E/C OF TROUTMAN STREET AND ONDERDONK AVENUE S/O ONDERDONK AVENUE  
S/W/C OF TROUTMAN STREET AND WOODWARD AVENUE

Total quantity for                      4.04H                      =                      21

**4.13AAS      4" CONCRETE SIDEWALK (UNPIGMENTED)      S.F.**

At the following locations:

INT. OF HIMROD AVENUE AND ONDERDONK AVENUE (SIDEWALK)  
W/S TROUTMAN STREET S/O WOODWARD AVENUE (SIDEWALK)  
W/S TROUTMAN STREET S/O ONDERDONK AVENUE (SIDEWALK)

Total quantity for                      4.13AAS                      =                      510

**6.02 AAN      UNCLASSIFIED EXCAVATION      C.Y.**

At the following locations:

INT. OF TROUTMAN STREET AND CYPRESS AVENUE  
W/S OF TROUTMAN STREET, N/O CYPRESS AVENUE  
S/W/C TO S/E/C OF TROUTMAN STREET AND ONDERDONK AVENUE S/O ONDERDONK AVENUE  
S/W/C OF TROUTMAN STREET AND WOODWARD AVENUE

Total quantity for                      6.02 AAN                      =                      34



**UTILITY INCLUSION SCOPE OF WORK**  
**BID ITEM ACCOMMODATION**  
**QED1023B - REPLACEMENT OF TRUNK AND DISTRIBUTION**  
**WATER MAIN IN CYPRESS AVENUE**  
**BOROUGH OF QUEENS**

**6.55 SAWCUTTING EXISTING PAVEMENT L.F.**

At the following locations:

INT. OF TROUTMAN STREET AND CYPRESS AVENUE  
W/S OF TROUTMAN STREET, N/O CYPRESS AVENUE  
S/W/C TO S/E/C OF TROUTMAN STREET AND ONDERDONK AVENUE S/O ONDERDONK AVENUE  
S/W/C OF TROUTMAN STREET AND WOODWARD AVENUE  
INT. OF CYPRESS AVENUE AND DEKALB AVENUE  
INT. OF HIMROD STREET AND ONDERDONK AVENUE

Total quantity for 6.55 = 486

**60.11R612 FURNISHING AND DELIVERING 12" DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 56) L.F.**

At the following locations:

INT. OF HIMROD AVENUE AND ONDERDONK AVENUE

Total quantity for 60.11R612 = 5

**60.11R520 FURNISHING AND DELIVERING 20" DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 55) L.F.**

At the following locations:

INT. OF CYPRESS AVENUE AND DEKALB AVENUE

Total quantity for 60.11R520 = 10

**60.12D12 LAYING 12" DUCTILE IRON PIPE AND FITTINGS L.F.**

At the following locations:

INT. OF HIMROD AVENUE AND ONDERDONK AVENUE

Total quantity for 60.12D12 = 10

**60.12D20 LAYING 20" DUCTILE IRON PIPE AND FITTINGS L.F.**

At the following locations:

INT. OF CYPRESS AVENUE AND DEKALB AVENUE

Total quantity for 60.12D20 = 15

**60.13M0A24 FURNISHING AND DELIVERING DUCTILE IRON MECHANICAL JOINT FITTINGS 24 INCH DIAMETER AND TONS SMALLER, INCLUDING WEDGE TYPE RETAINER GLANDS**

At the following locations:

AS ENCOUNTERED AND DETERMINED BY THE VERIZON REPRESENTATIVE

Total quantity for 60.13M0A24 = 4

**UTILITY INCLUSION SCOPE OF WORK**  
**BID ITEM ACCOMMODATION**  
**QED1023B - REPLACEMENT OF TRUNK AND DISTRIBUTION**  
**WATER MAIN IN CYPRESS AVENUE**  
**BOROUGH OF QUEENS**

**70.81CB      CLEAN BACKFILL      C.Y.**

At the following locations:

INT. OF HIMROD AVENUE AND ONDERDONK AVENUE  
INT. OF CYPRESS AVENUE AND DEKALB AVENUE

Total quantity for      70.81CB      =      6

**8.02A      SPECIAL CARE EXCAVATION AND RESTORATION FOR SIDEWALK WORK      S.F.**

At the following locations:

AS ENCOUNTERED AND DETERMINED BY THE VERIZON REPRESENTATIVE

Total quantity for      8.02A      =      400

**8.02B      SPECIAL CARE EXCAVATION AND RESTORATION FOR CURB WORK      L.F.**

At the following locations:

AS ENCOUNTERED AND DETERMINED BY THE VERIZON REPRESENTATIVE

Total quantity for      8.02B      =      200

**FOR INFORMATION ONLY**  
**ENGINEER'S ESTIMATE OF QUANTITIES AND TYPES OF INTERFERENCE**  
**CHARTER SPECTRUM**  
**QED-1023B**  
**REPLACEMENT OF TRUNK & DISTRIBUTION OF WATER MAIN IN CYPRESS AVE**  
**Borough of Queens**

JB ITEM	DESCRIPTION	UNITS	ESTIMATED QUANTITY
JB 100.1	UTILITIES CROSSING TRENCH FOR CATCH BASIN CHUTE CONNECTION	EA	4
JB 108.1	UTILITIES CROSSING TRENCH FOR WATER MAIN UP TO AND INCLUDING 12" DIAMETER	EA	4
JB 109.1	UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 12" TO 24" DIAMETER	EA	4
JB 330T1	SUPPORT AND PROTECTION OF UTILITY IN CITY TRENCH	LF	161
JB 350 TWC	OVERHEAD ACCOMMODATION, PROTECTION OF OVERHEAD FACILITIES, POLES & APPURTENANCES	LS	1
JB 900	EXTRA UTILITY WORK COSTS ALLOWANCE (\$7,710.28) SEVEN THOUSAND SEVEN HUNDRED TEN DOLLARS AND TWENTY EIGHT CENTS	FS	1

**CHARTER SPECTRUM  
SUPPORT & PROTECTION  
QED-1023B  
Replacement of Trunk & Distribution of Water Main in Cypress Ave  
Borough of Queens**

<b>JB 100.1</b>	<b>UTILITIES CROSSING TRENCH FOR CB CHUTE CONNECTION</b>	<b>EA</b>
	At the following locations:	
	Intersection of NC Cypress Ave and Suydam St	2
	Intersection of NC Cypress Ave and Hart St	2
	<b>Total quantity for JB 100.1</b>	<b>4</b>
<b>JB 108.1</b>	<b>UTILITIES CROSSING TRENCH FOR WATER MAIN UP TO AND INCLUDING 12" DIAMETER</b>	<b>EA</b>
	At the following locations:	
	IFO # 17-02_ NC of Cypress Ave	1
	IFO # 17-01_ NC of Cypress Ave and W of Hart St	1
	Intersection of Cypress Ave and Dekalb Ave	1
	IFO # 1731_ NC of Cypress Ave and W of Dekalb Ave	1
	<b>Total quantity for JB 108.1</b>	<b>4</b>
<b>JB 109.1</b>	<b>UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 12" TO 24" DIAMETER</b>	<b>EA</b>
	At the following locations:	
	NC of Cypress Ave and E of Suydam St	1
	NC of Cypress Ave and E of Hart St	1
	NC of Cypress Ave and Suydam St and W of Suydam st	2
	<b>Total quantity for JB 109.1</b>	<b>4</b>
<b>JB 330T1</b>	<b>SUPPORT AND PROTECTION OF UTILITY IN CITY TRENCH</b>	<b>LF</b>
	At the following locations:	
	IFO# NC of Cypress Ave and Suydam St	161
	<b>Total quantity for JB 330T1</b>	<b>161</b>
<b>JB 350 TWC</b>	<b>OVERHEAD ACCOMMODATION, PROTECTION OF OVERHEAD FACILITIES, POLES AND APPURTENANCES</b>	<b>LS</b>
	As Encountered:	1
	<b>Total quantity for JB 350 TWC</b>	<b>1</b>
<b>JB 900</b>	<b>EXTRA UTILITY WORK ALLOWANCE</b>	<b>FS</b>
		1
	<b>Total quantity for JB 900</b>	<b>1</b>

**nationalgrid**

287 Maspeth Avenue  
Brooklyn, New York 11211

**Support & Protection  
CONTRACT NO. QED1023B  
Cypress Ave Area  
Borough of Queens**

<b>JB Item Number</b>	<b>Description</b>	<b>Unit of Measure</b>	<b>Estimated Quantity</b>	<b>Unit Price</b>	<b>Total</b>
900	Extra Utility Work Costs Allowance	FS			\$3,000.00
				<b><u>TOTAL</u></b>	<b><u>\$3,000.00</u></b>

**nationalgrid**

287 Maspeth Avenue  
Brooklyn, N.Y. 11211-1788

**JB Item  
Number**      **Extra Utility Work Costs Allowance**

**900**      **At the following locations:  
AS ENCOUNTERED AND REQUIRED BY NATIONAL GRID  
Quantity - \$3000.00 FS**

## TEST PITS

- (1) THESE TEST PITS DETAIL EXISTING CONDITIONS (AS OF BID DATE) OF UTILITIES AND OTHER SUBSURFACE FACILITIES AT LOCATIONS AS SHOWN ON THE TEST PIT LOCATIONS PLAN OF THE CONTRACT DRAWINGS.**
  
- (2) DEPTHS OF FACILITIES ARE FROM EXISTING ROADWAY AND SIDEWALK ELEVATIONS AS SHOWN, OFFSETS ARE FROM EXISTING CURB, PROPERTY AND BUILDING LINES, AS SHOWN.**
  
- (3) RELEVANT ITEMS ARE NOTED ON EACH TEST PIT DIAGRAM.**

(NO TEXT IN THIS SECTION)



JOB NO: QED1023B

TEST PIT # 09

PREPARED BY: W. LANGE

DATE: 10/06/17

CHECKED BY: D. DIAZ

DATE: 10/06/17

JOB NAME: WATER MAIN REPLACEMENT

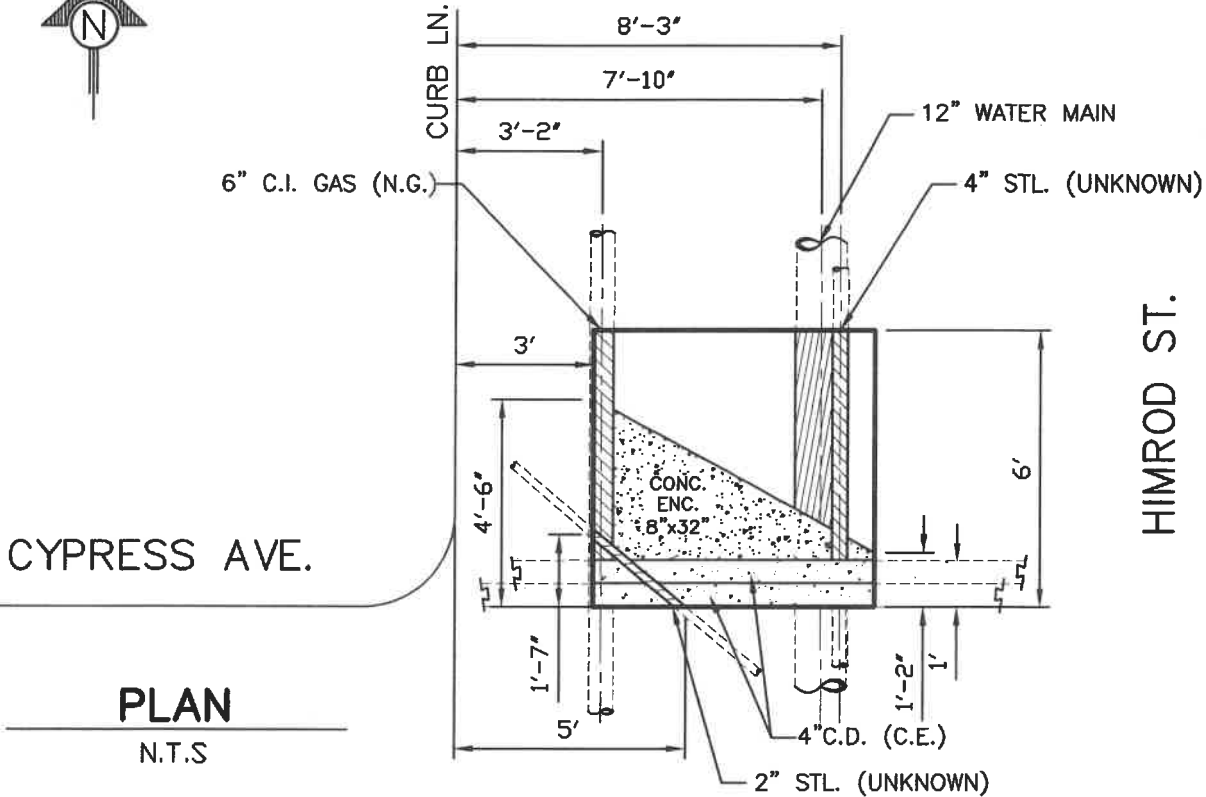
LOCATION: 0' N/N/C CYPRESS AVE.

PURPOSE: LOCATE UNDERGROUND FACILITIES

3' E/W/C HIMROD ST.

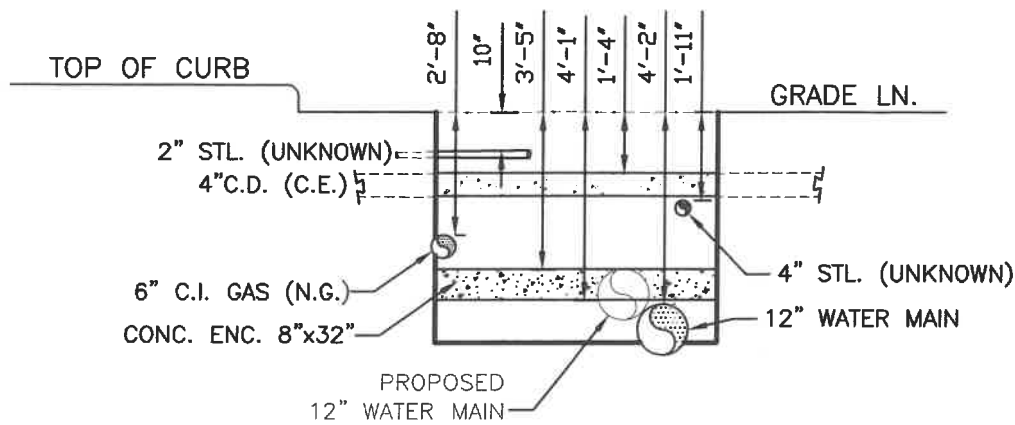
DATE OF EXCAVATION: 09/21/17

CONTRACT SHEET NO: 12 OF X



**PLAN**

N.T.S.



**PROFILE — LOOKING NORTH**

N.T.S.





JOB NO: QED1023B

TEST PIT # 11

PREPARED BY: W. LANGE

DATE: 10/31/17

CHECKED BY: D. DIAZ

DATE: 10/31/17

JOB NAME: WATER MAIN REPLACEMENT

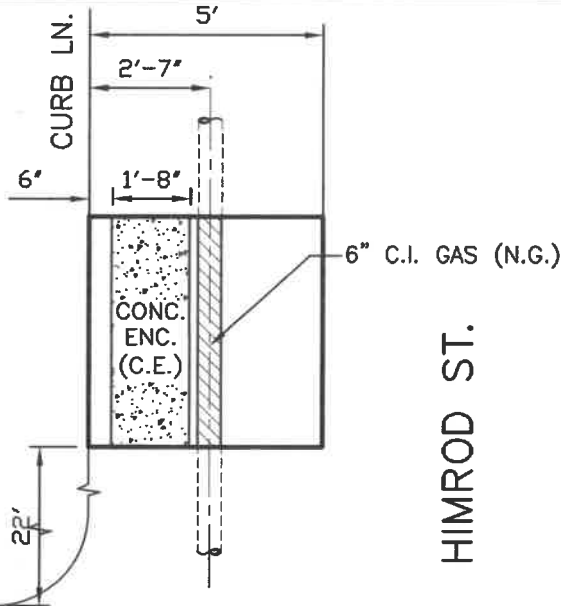
LOCATION: 22' N/N/C SENECA AVE

PURPOSE: LOCATE UNDERGROUND FACILITIES

0' E/W/C HIMROD ST

DATE OF EXCAVATION: 9/25/17

CONTRACT SHEET NO: 12 OF X



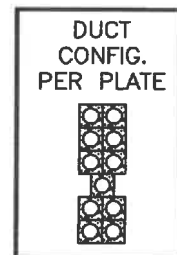
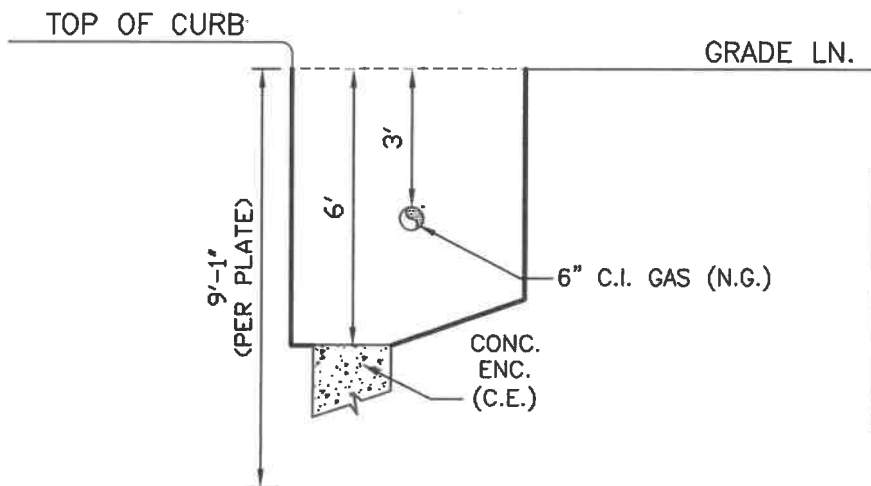
SENECA AVE.

**PLAN**

N.T.S

CET

XXXXXXX  
XXXXXXX  
XXXXXXX  
XXXXXXX



**PROFILE - LOOKING NORTH**

N.T.S.



JOB NO: QED1023B

TEST PIT # 12

PREPARED BY: W. LANGE

DATE: 10/06/17

CHECKED BY: D. DIAZ

DATE: 10/06/17

JOB NAME: WATER MAIN REPLACEMENT

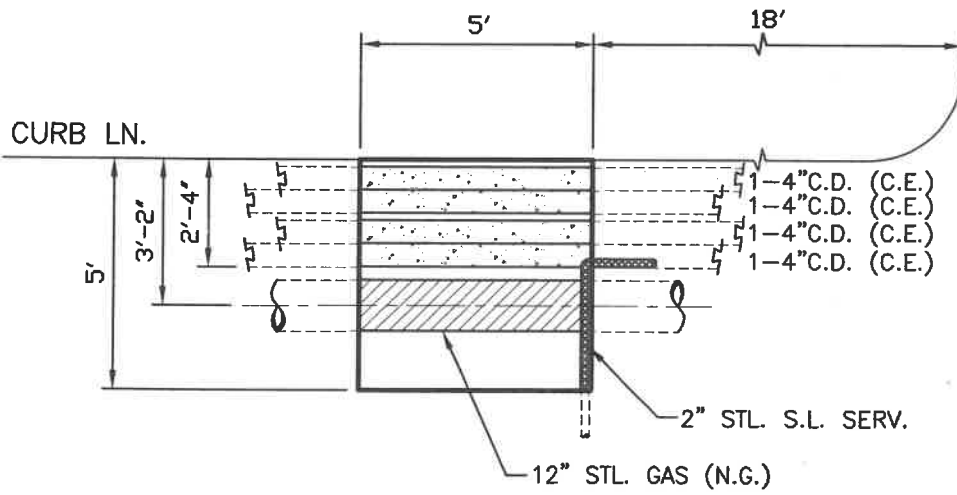
LOCATION: 0' S/N/C SENECA AVE.

PURPOSE: LOCATE UNDERGROUND FACILITIES

18' W/W/C HIMROD ST.

DATE OF EXCAVATION: 09/22/17

CONTRACT SHEET NO: 12 OF X



HIMROD ST.

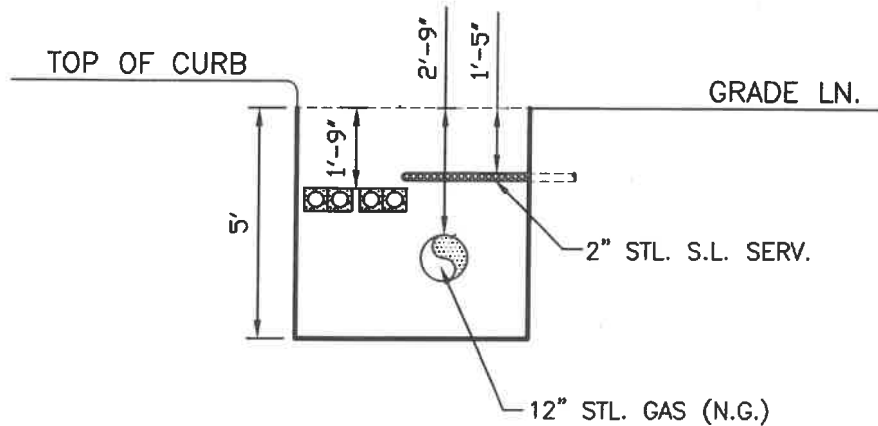
SENECA AVE.

**PLAN**

N.T.S.

CET

XXXXXXX  
XXXXXXX  
XXXXXXX  
XXXXXXX



**PROFILE - LOOKING EAST**

N.T.S.

JB-88



JOB NO: QED1023B

TEST PIT # 13

PREPARED BY: W. LANGE

DATE: 10/31/17

CHECKED BY: D. DIAZ

DATE: 10/31/17

JOB NAME: WATER MAIN REPLACEMENT

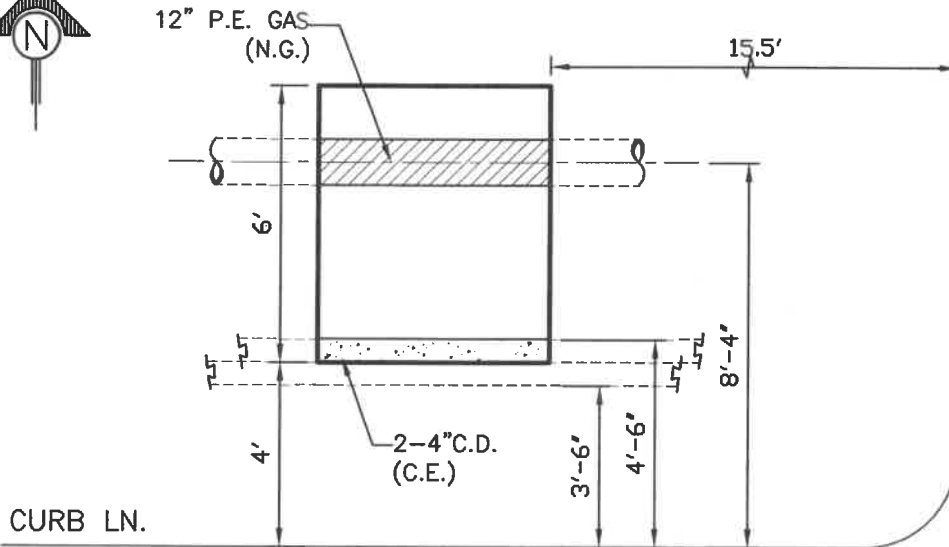
LOCATION: 4' N/N/C SENECA AVE.

PURPOSE: LOCATE UNDERGROUND FACILITIES

15.5' E/E/C HIMROD

DATE OF EXCAVATION: 09/25/17

CONTRACT SHEET NO: 12 OF X

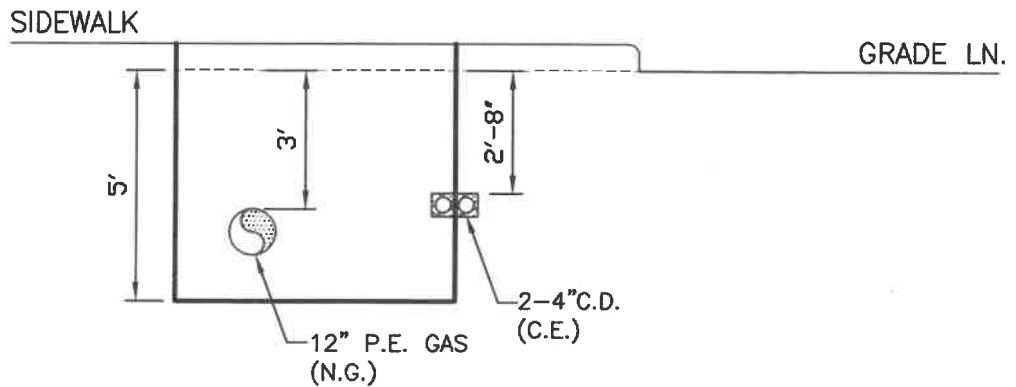


**PLAN**  
N.T.S.

SENECA AVE.

HIMROD ST.

<b>CET</b>
XXXXXXXX
XXXXXXXX
XXXXXXXX
XXXXXXXX



**PROFILE — LOOKING EAST**

N.T.S.

JB-89



JOB NO.: QED1023B

TEST PIT #: 1

JOB: REPLACEMENT OF DISTRIBUTION AND

TP DATE: 09-27-17

TRUNK WATER MAIN IN CYPRESS AVE

INSPECTOR: TM

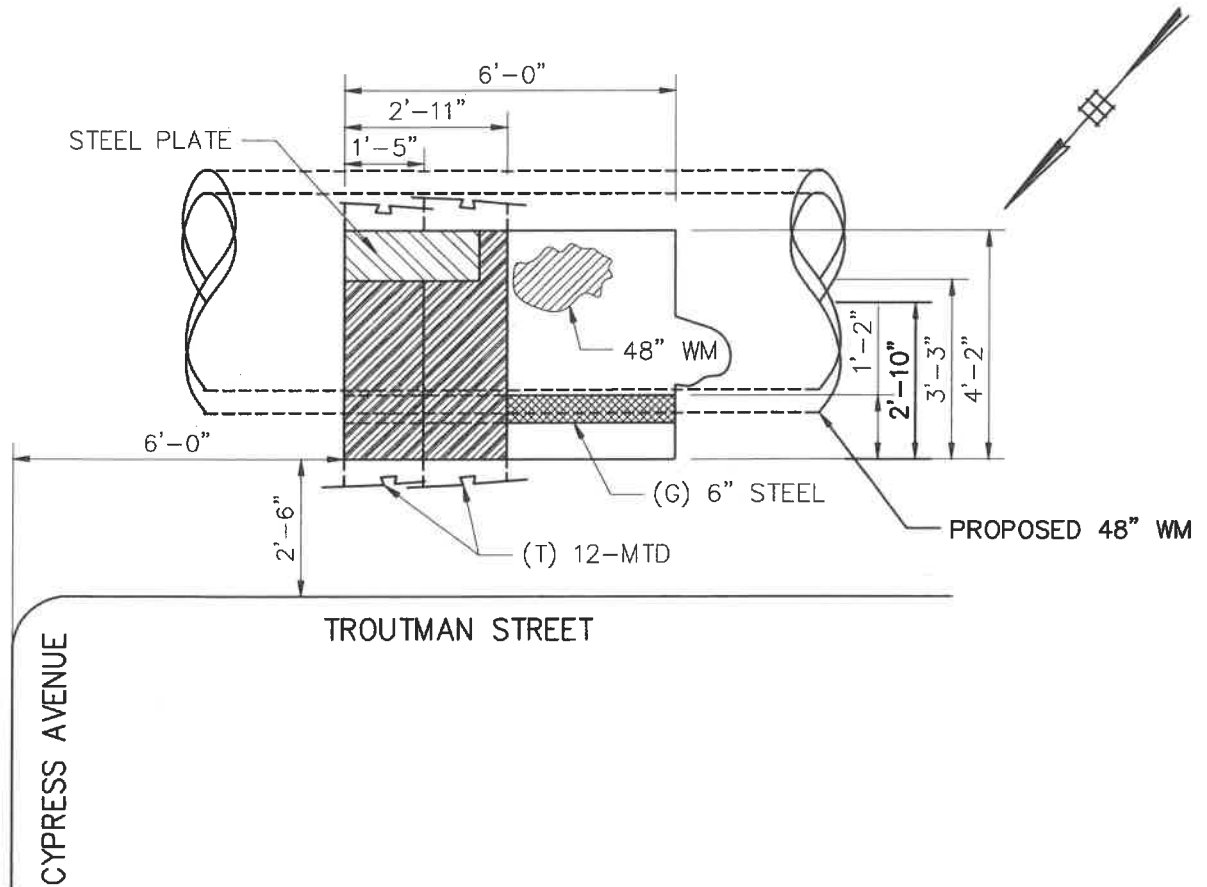
LOCATION: W/S TROUTMAN ST. S/O CYPRESS AVE.

PURPOSE: LOCATE EXISTING UNDERGROUND FACILITIES

DIMENSION: 6'-0"X4'-2"X3'-4"

VOLUME: 3.1 CY

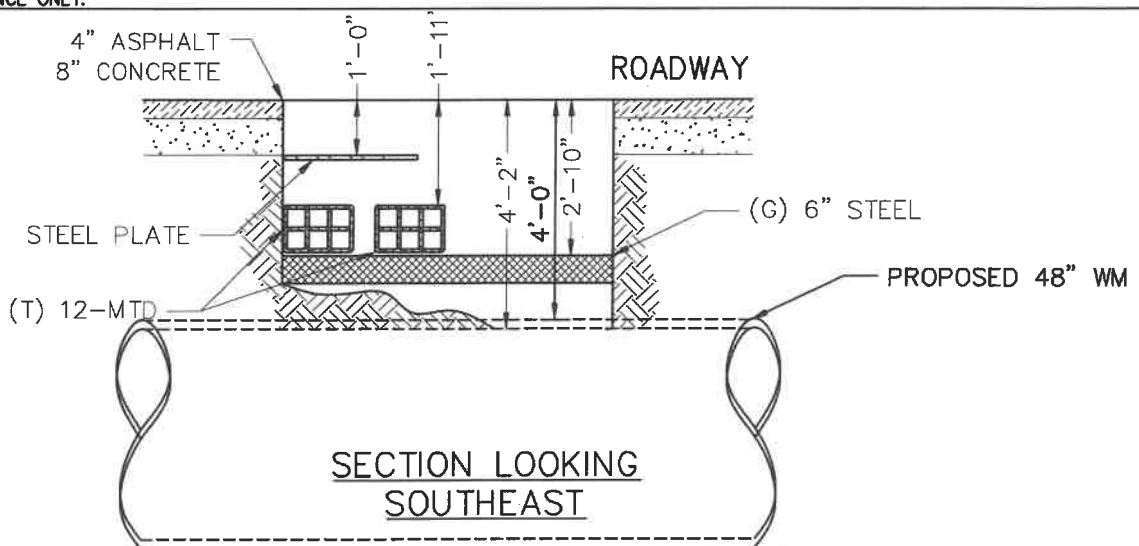
SHEET NO. 1 OF 28



NOTE:

1. ALL DRAWINGS SHOWING UTILITY SUPPORT AND PROTECT WORK ARE FOR REFERENCE ONLY.

PLAN



SECTION LOOKING SOUTHEAST



JOB NO.: QED1023B

TEST PIT #: 2

JOB: REPLACEMENT OF DISTRIBUTION AND  
TRUNK WATER MAIN IN CYPRESS AVE

TP DATE: 09-27-17

INSPECTOR: YM

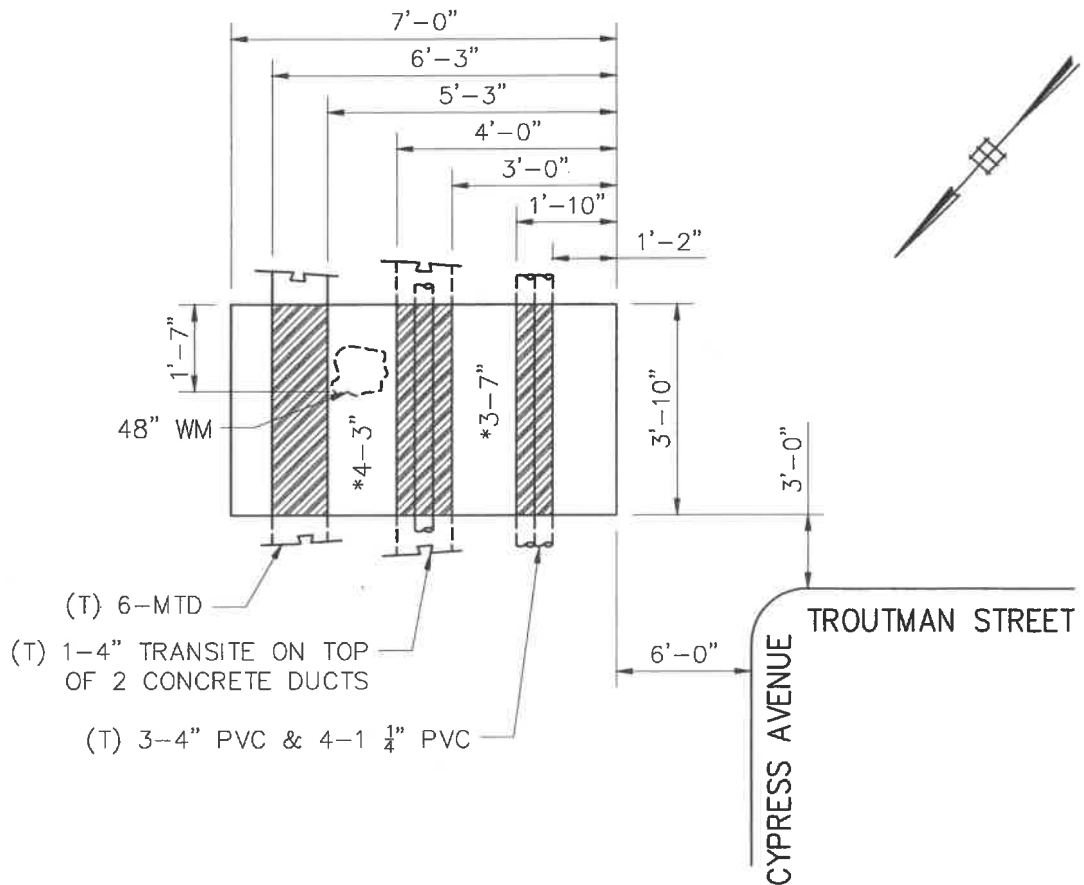
LOCATION: INTERSECTION OF TROUTMAN ST. AND CYPRESS AVE.

PURPOSE: LOCATE EXISTING UNDERGROUND FACILITIES

DIMENSION: 7'-0" X 3'-10" X 3'-2"

VOLUME: 3.1 CY

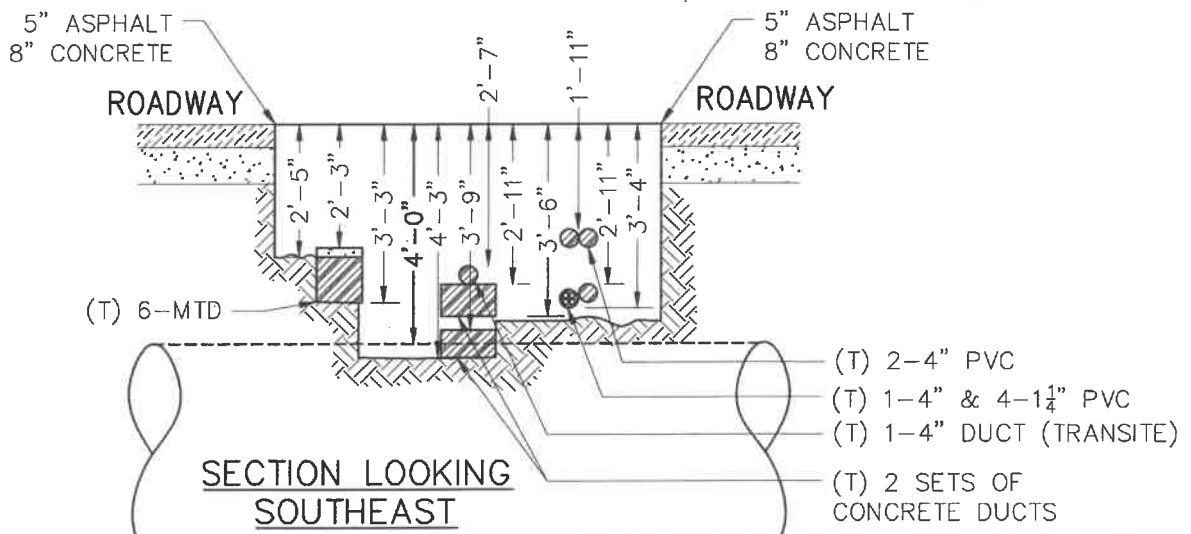
SHEET NO. 2 OF 28



NOTE:

1. ALL DRAWINGS SHOWING UTILITY SUPPORT AND PROTECT WORK ARE FOR REFERENCE ONLY.

PLAN





JOB NO.: QED1023B

TEST PIT #: 3

JOB: REPLACEMENT OF DISTRIBUTION AND

TP DATE: 08-16-17

TRUNK WATER MAIN IN CYPRESS AVE

INSPECTOR: AH

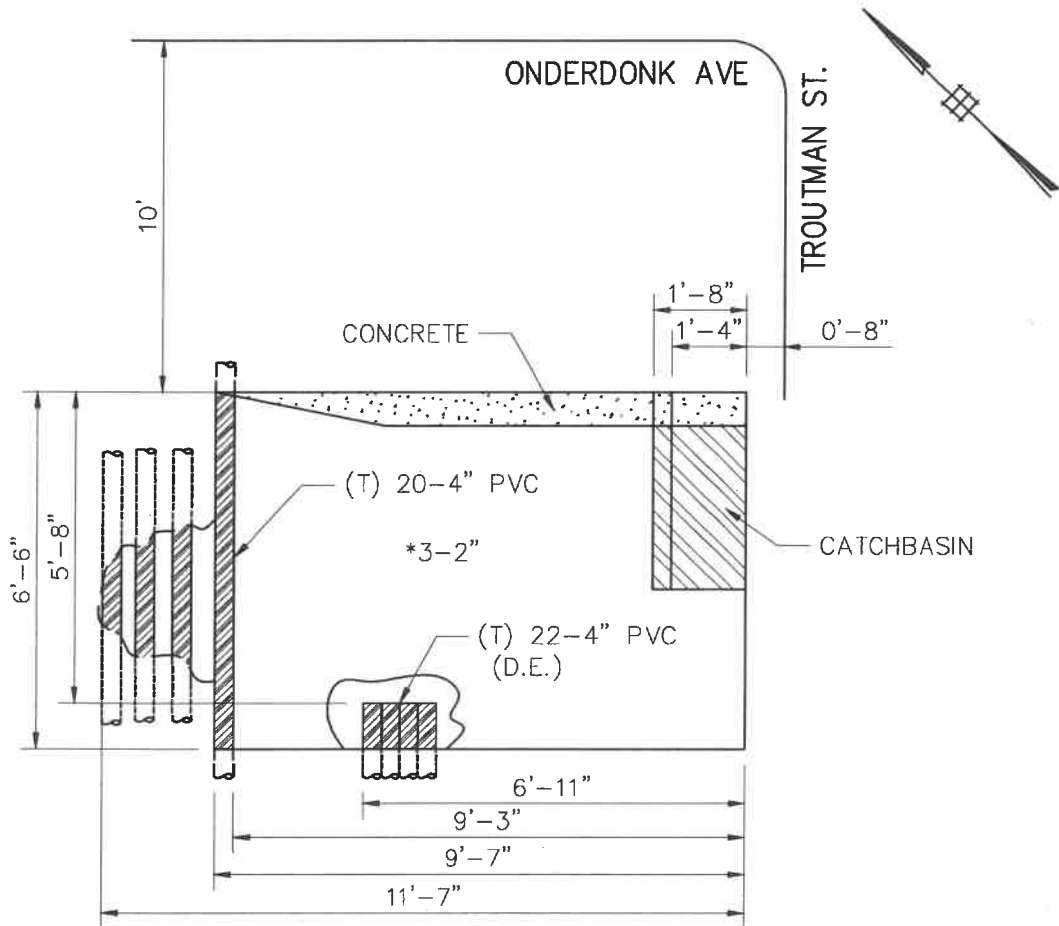
LOCATION: W/S TROUTMAN ST. S/O ONDERDONK AVE. (SIDEWALK)

PURPOSE: LOCATE EXISTING UNDERGROUND FACILITIES

DIMENSION: 9'-7"X6'-6"X4'-0"

VOLUME: 9.2 CY

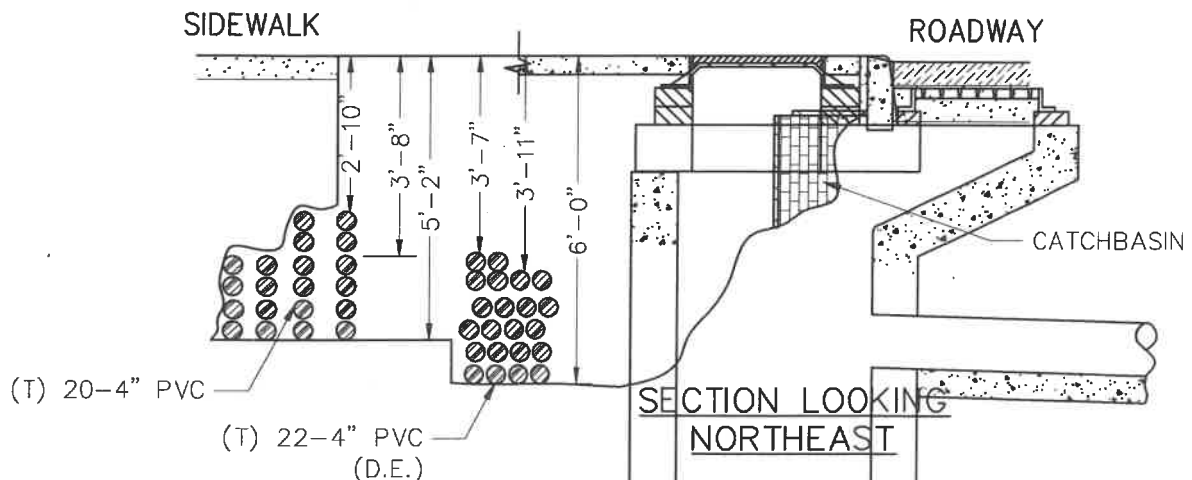
SHEET NO. 3 OF 28



NOTE:

1. ALL DRAWINGS SHOWING UTILITY SUPPORT AND PROTECT WORK ARE FOR REFERENCE ONLY.

PLAN





JOB NO.: QED1023B

TEST PIT #: 4

JOB: REPLACEMENT OF DISTRIBUTION AND

TP DATE: 09-26-17

TRUNK WATER MAIN IN CYPRESS AVE

INSPECTOR: TM

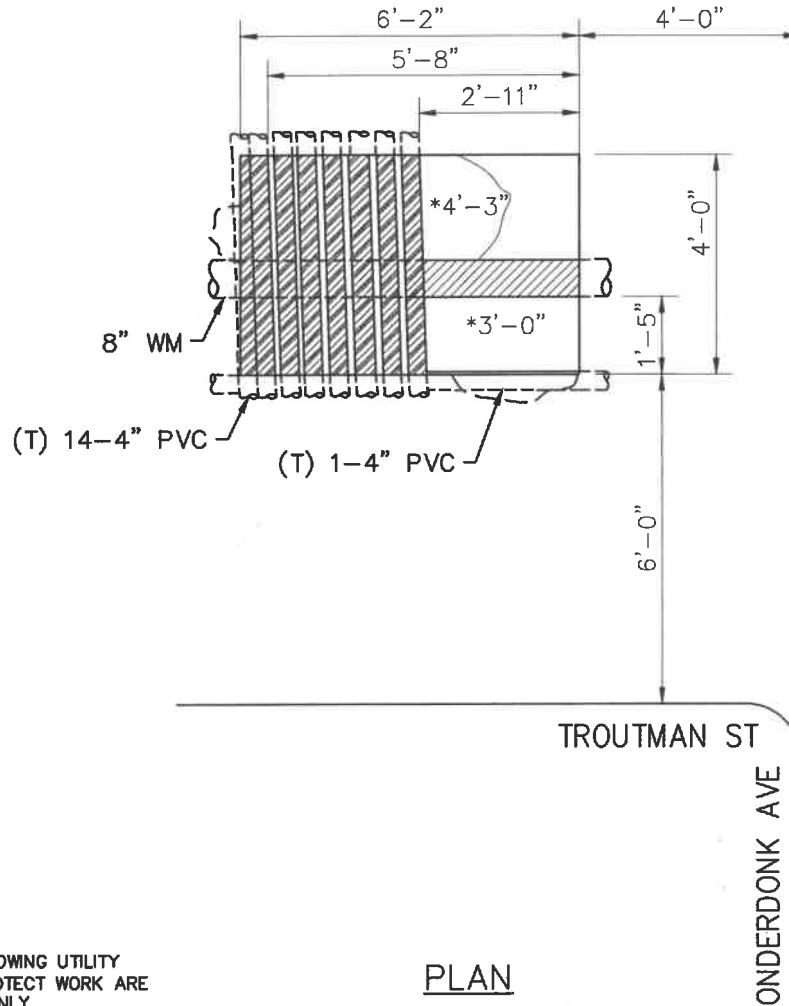
LOCATION: S/S TROUTMAN ST. W/O ONDERDONK AVE.

PURPOSE: LOCATE EXISTING UNDERGROUND FACILITIES

DIMENSION: 6'-2"X4'-0"X3'-2"

VOLUME: 2.9 CY

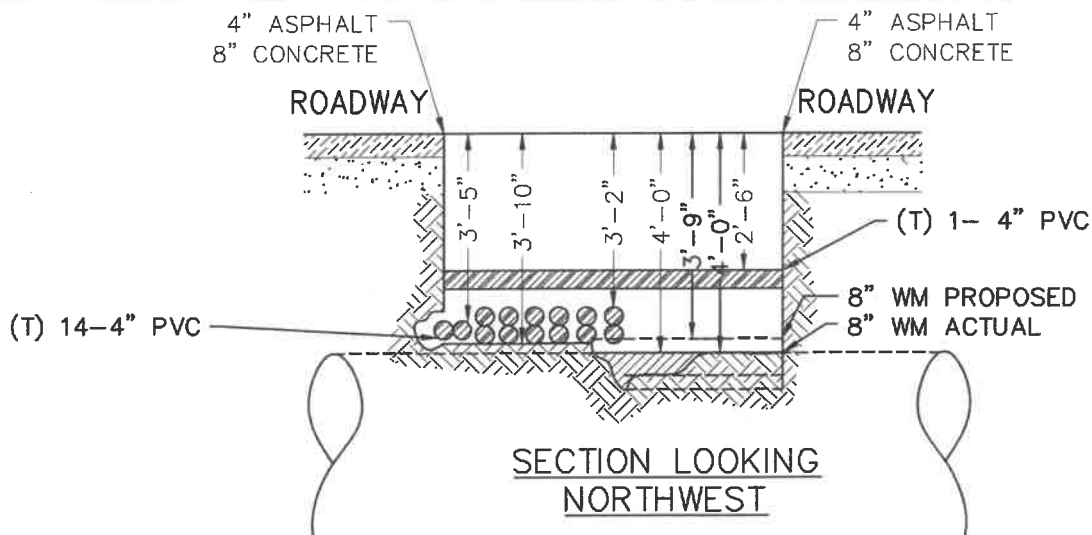
SHEET NO. 4 OF 28



NOTE:

- 1. ALL DRAWINGS SHOWING UTILITY SUPPORT AND PROTECT WORK ARE FOR REFERENCE ONLY.

PLAN



SECTION LOOKING NORTHWEST



JOB NO.: QED1023B

TEST PIT #: 5

JOB: REPLACEMENT OF DISTRIBUTION AND

TP DATE: 09-26-17

TRUNK WATER MAIN IN CYPRESS AVE

INSPECTOR: TM

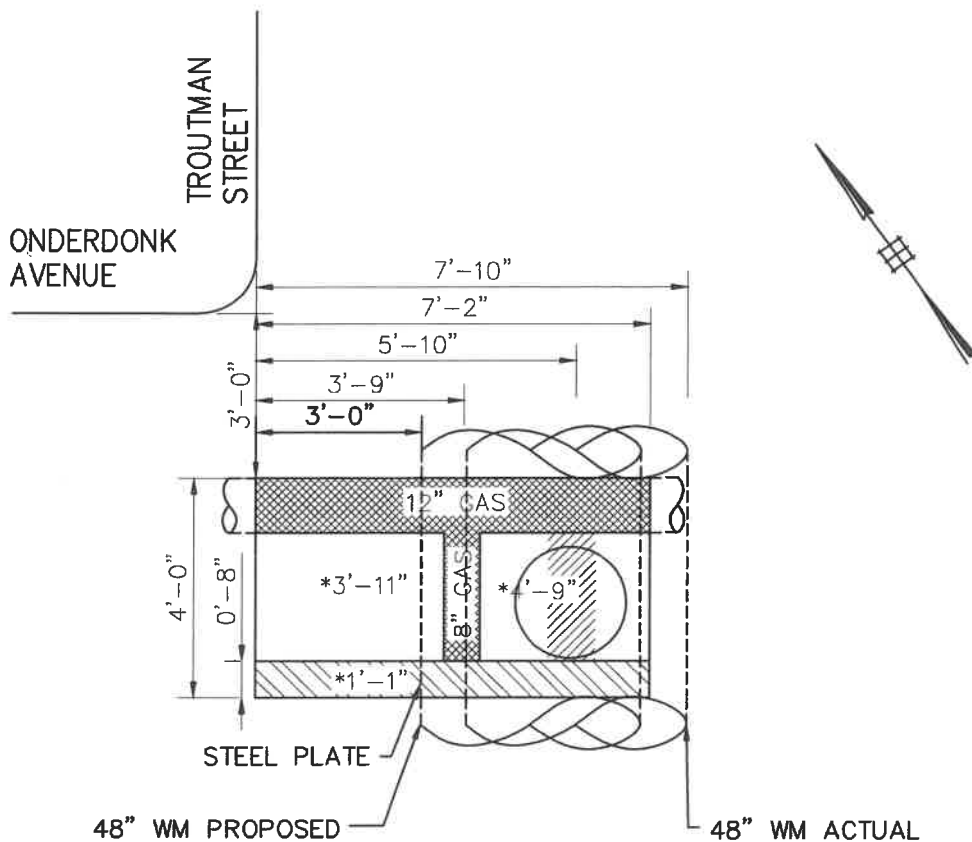
LOCATION: INTERSECTION OF ONDERDONK AVE. AND TROUTMAN ST.

PURPOSE: LOCATE EXISTING UNDERGROUND FACILITIES

DIMENSION: 7'-2" X 4'-0" X 3'-4"

VOLUME: 3.5 CY

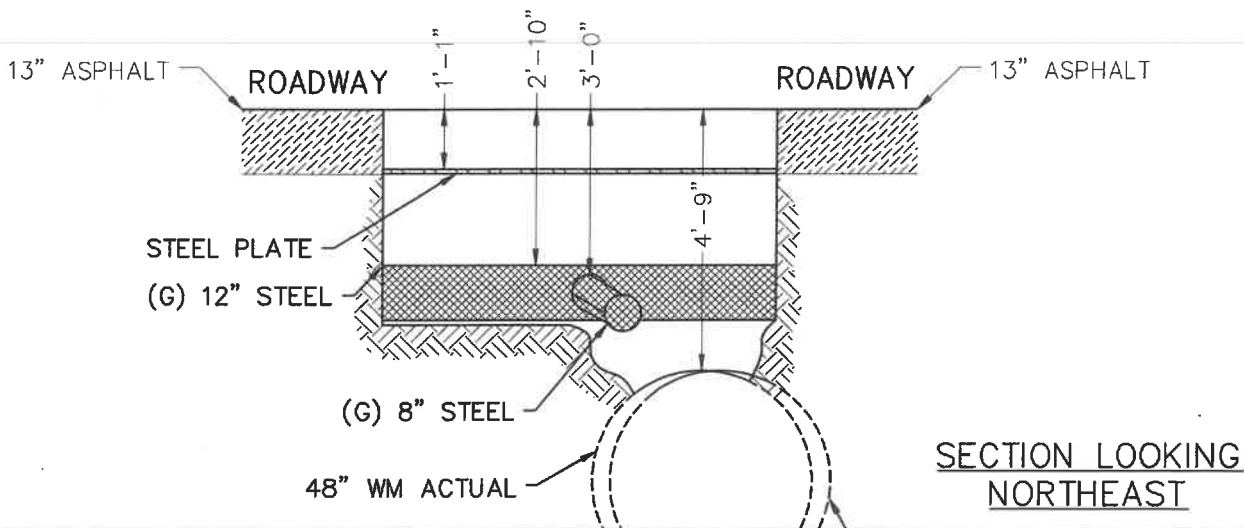
SHEET NO. 5 OF 28



NOTE:

1. ALL DRAWINGS SHOWING UTILITY SUPPORT AND PROTECT WORK ARE FOR REFERENCE ONLY.

PLAN



JB-94





JOB NO.: QED1023B

TEST PIT #: 5A

JOB: REPLACEMENT OF DISTRIBUTION AND

TP DATE: 09/27/2017

TRUNK WATER MAIN IN CYPRESS AVE

INSPECTOR: YM

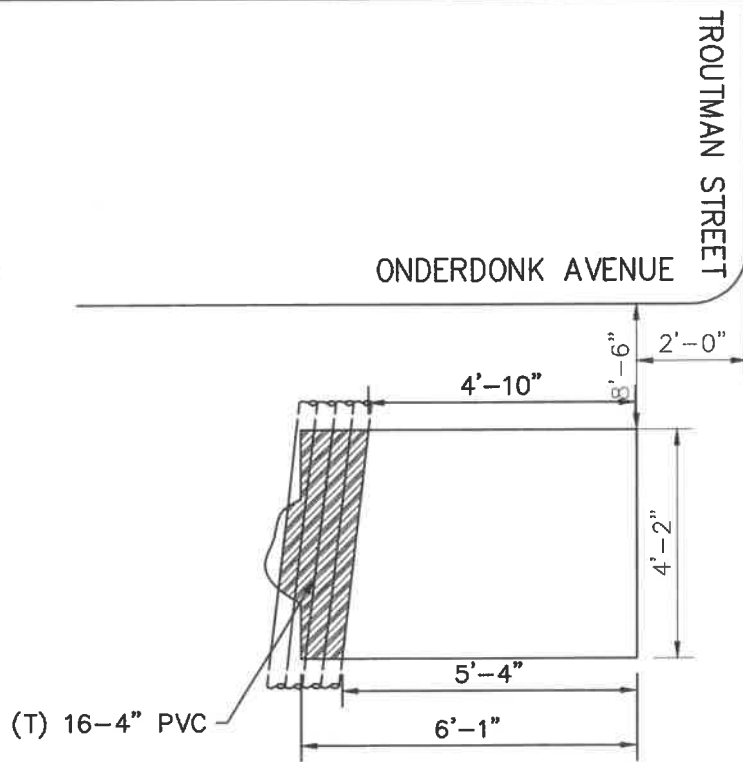
LOCATION: N/S ONDERDONK AVE. W/O TROUTMAN ST.

PURPOSE: LOCATE EXISTING UNDERGROUND FACILITIES

DIMENSION: 6'-1"X4'-2"X5'-0"

VOLUME: 4.7 CY

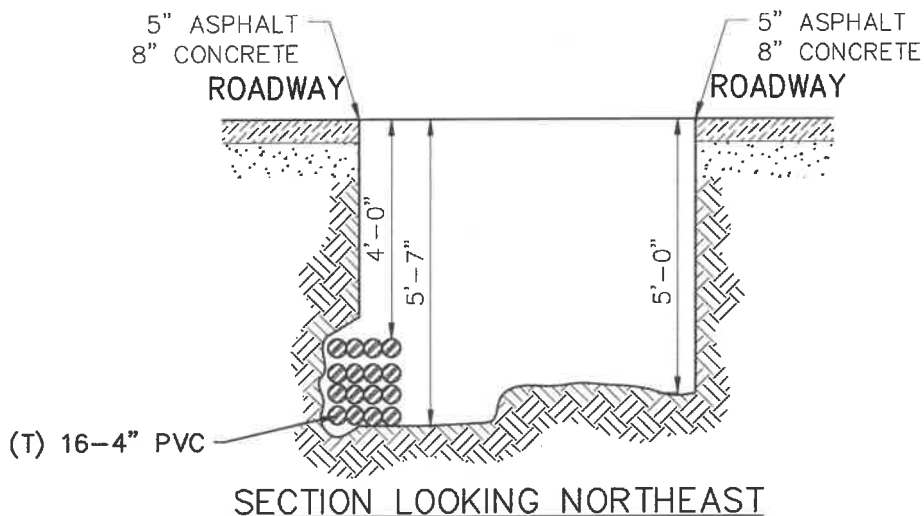
SHEET NO. 6 OF 28



NOTE:

- 1. ALL DRAWINGS SHOWING UTILITY SUPPORT AND PROTECT WORK ARE FOR REFERENCE ONLY.

PLAN





JOB NO.: QED1023B

TEST PIT #: 6

JOB: REPLACEMENT OF DISTRIBUTION AND

TP DATE: 09/26/17

TRUNK WATER MAIN IN CYPRESS AVE

INSPECTOR: YM

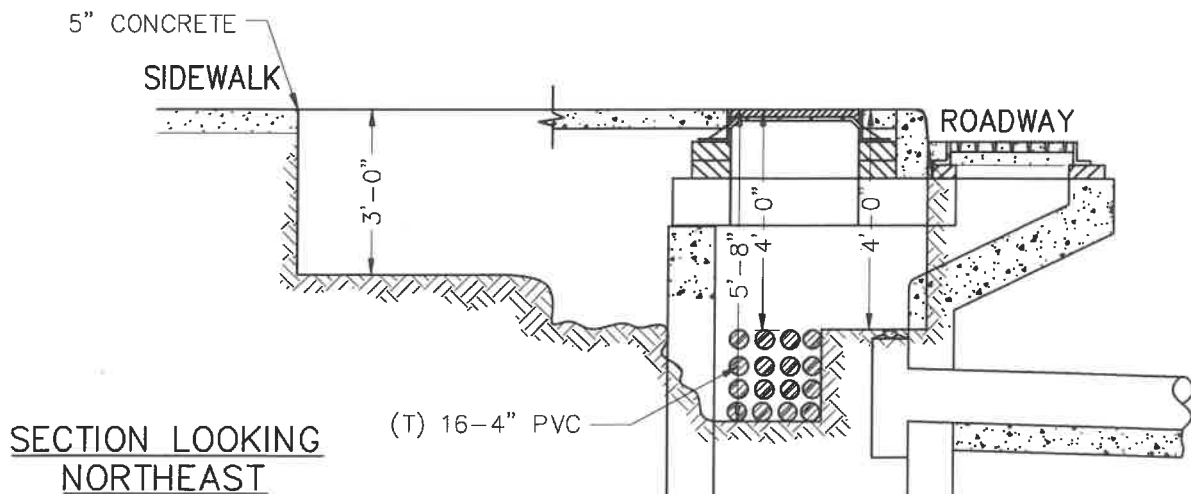
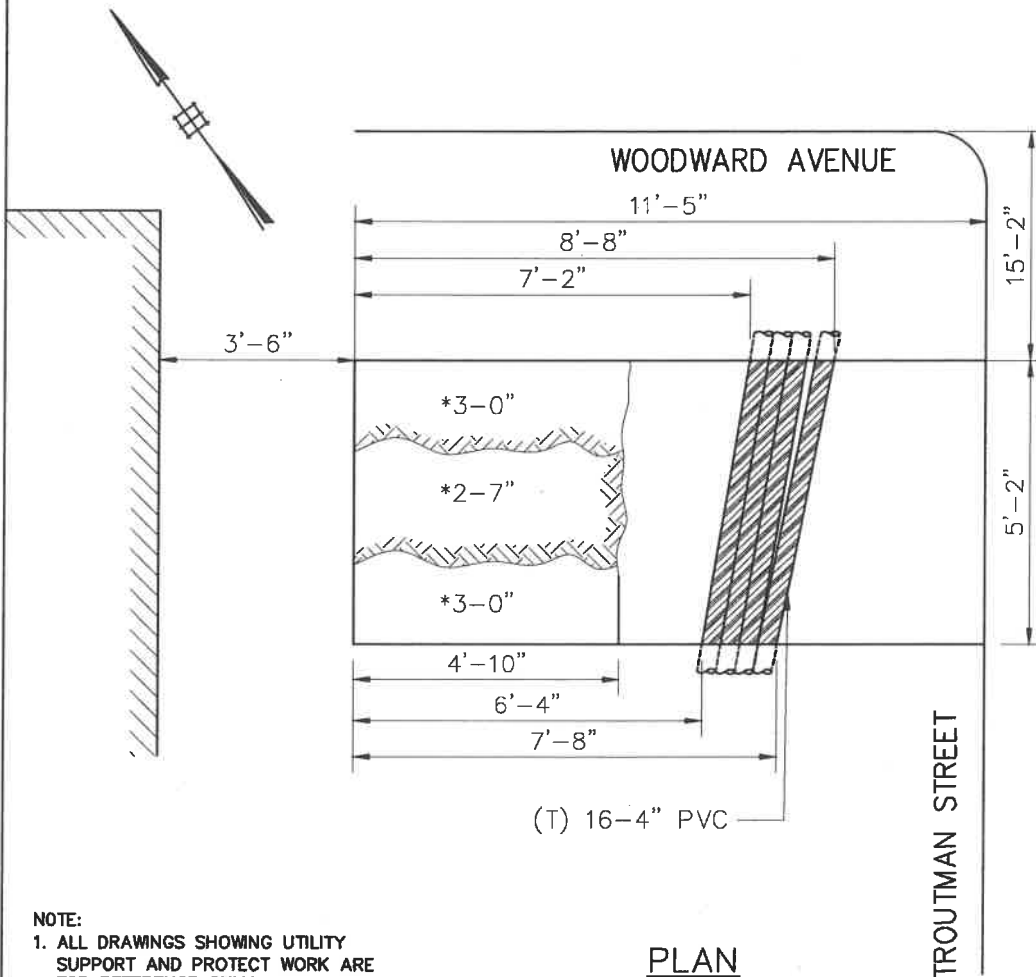
LOCATION: S/S WOODWARD AVE. W/O TROUTMAN ST. (SIDEWALK)

PURPOSE: LOCATE EXISTING UNDERGROUND FACILITIES

DIMENSION: 11'-5"X5'-2"X3'-5"

VOLUME: 7.5 CY

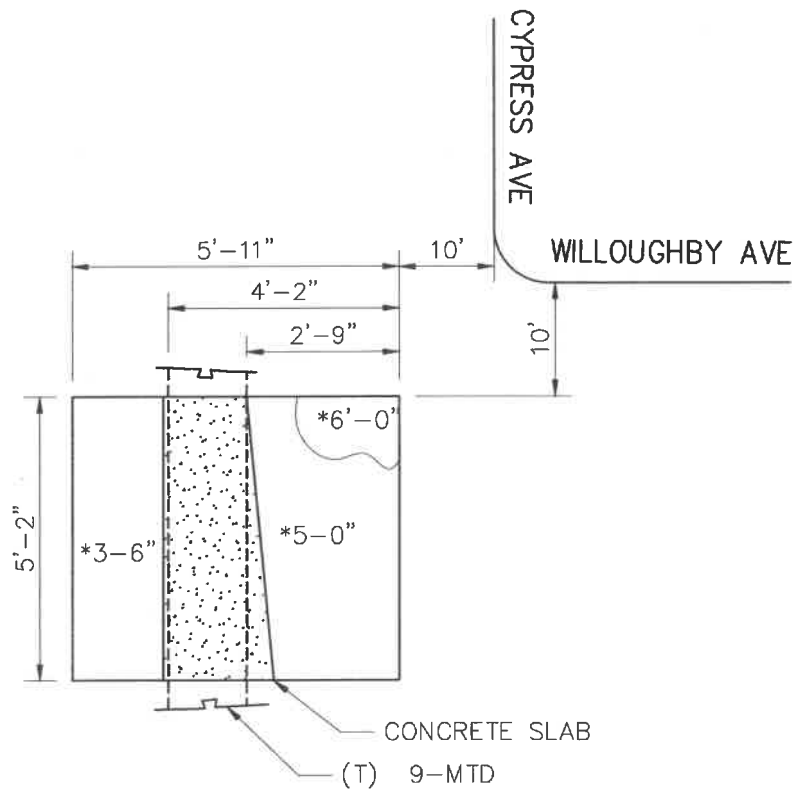
SHEET NO. 7 OF 28





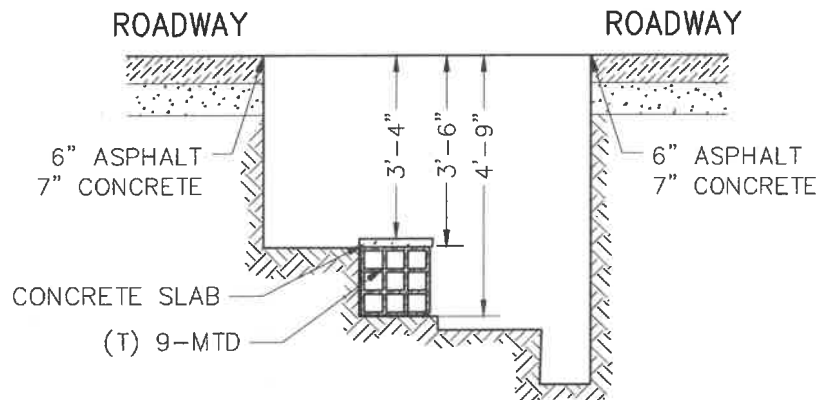
JOB NO.: QED1023B TEST PIT #: 7  
JOB: REPLACEMENT OF DISTRIBUTION AND TRUNK WATER MAIN IN CYPRESS AVE TP DATE: 09-29-17  
INSPECTOR: BNS

LOCATION: INTERSECTION OF CYPRESS AVE. AND WILLOUGHBY AVE.  
PURPOSE: LOCATE EXISTING UNDERGROUND FACILITIES  
DIMENSION: 5'-11"X5'-2"X4'-3" VOLUME: 4.8 CY SHEET NO. 8 OF 28



NOTE:  
1. ALL DRAWINGS SHOWING UTILITY  
SUPPORT AND PROTECT WORK ARE  
FOR REFERENCE ONLY.

PLAN



SECTION LOOKING SOUTHEAST



JOB NO.: QED1023B

TEST PIT #: 8

JOB: REPLACEMENT OF DISTRIBUTION AND  
TRUNK WATER MAIN IN CYPRESS AVE

TP DATE: 09-27-17

INSPECTOR: TM

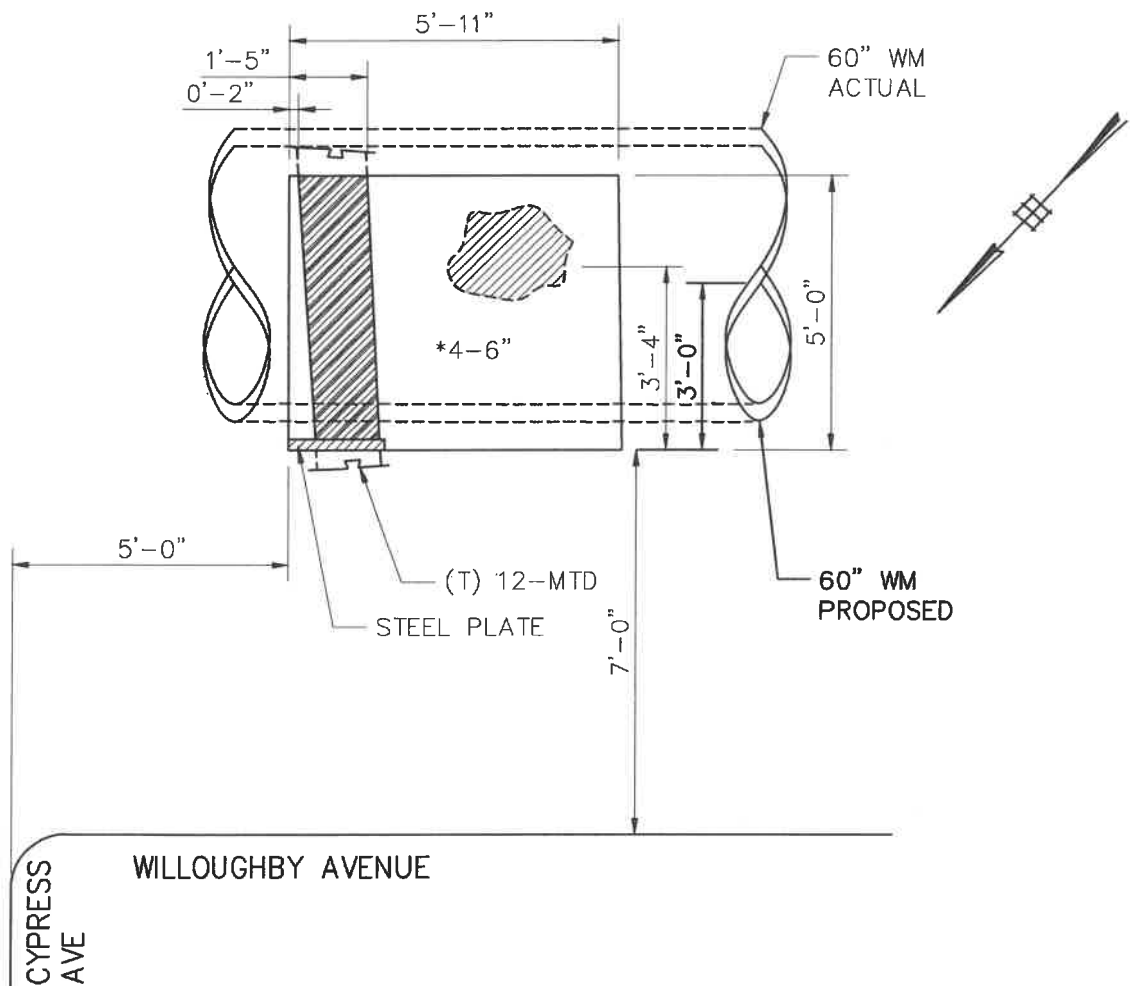
LOCATION: W/S WILLOUGHBY AVE. S/O CYPRESS AVENUE

PURPOSE: LOCATE EXISTING UNDERGROUND FACILITIES

DIMENSION: 5'-11" X 5'-0" X 4'-2"

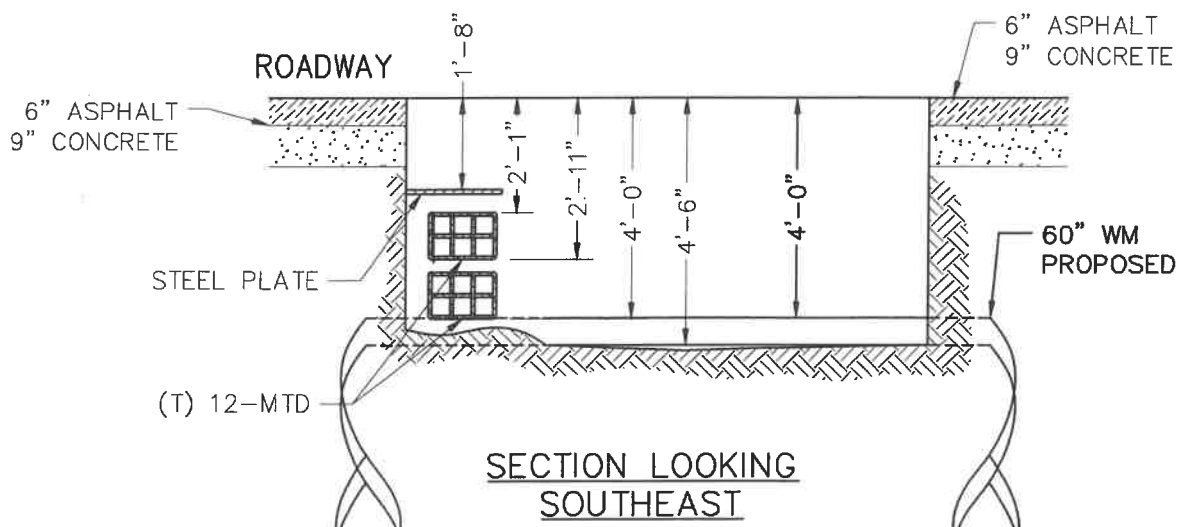
VOLUME: 4.6 CY

SHEET NO. 9 OF 28



NOTE:  
1. ALL DRAWINGS SHOWING UTILITY  
SUPPORT AND PROTECT WORK ARE  
FOR REFERENCE ONLY.

PLAN



SECTION LOOKING  
SOUTHEAST

JB-98



JOB NO.: QED1023B

TEST PIT #: 9

JOB: REPLACEMENT OF DISTRIBUTION AND

TP DATE: 09-29-17

TRUNK WATER MAIN IN CYPRESS AVE

INSPECTOR: YM

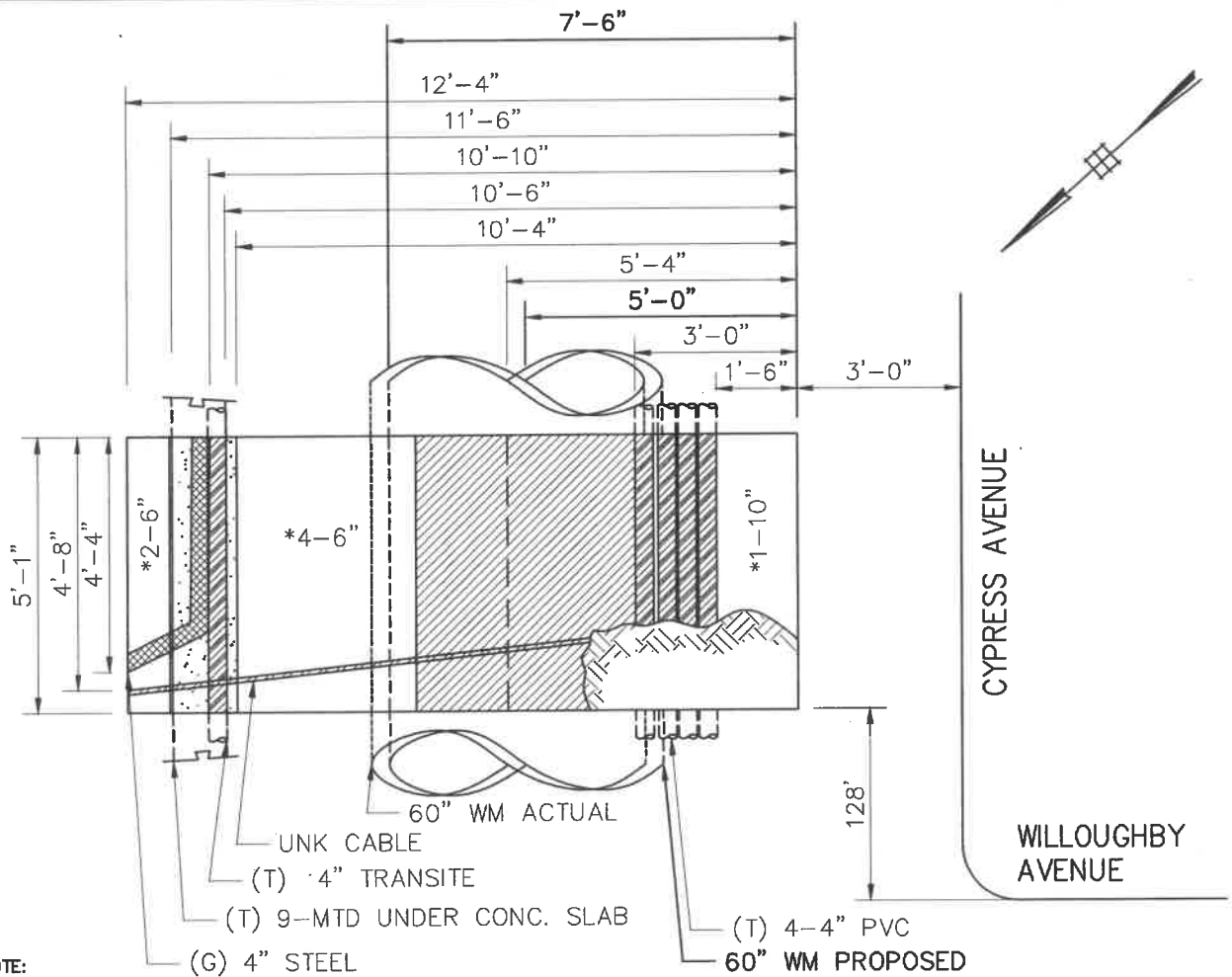
LOCATION: S/S CYPRESS AVE. E/O WILLOUGHBY AVE.

PURPOSE: LOCATE EXISTING UNDERGROUND FACILITIES

DIMENSION: 12'-4"X5'-1"X43'-6"

VOLUME: 8.1 CY

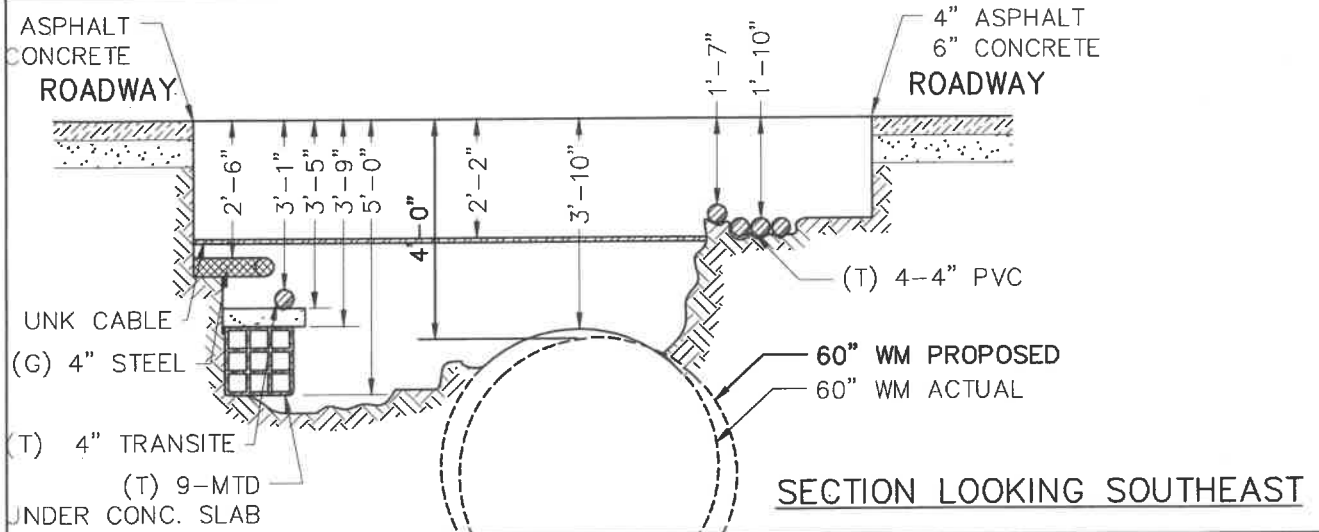
SHEET NO. 10 OF 28



**NOTE:**

- 1. ALL DRAWINGS SHOWING UTILITY SUPPORT AND PROTECT WORK ARE FOR REFERENCE ONLY.

**PLAN**



**SECTION LOOKING SOUTHEAST**



JOB NO.: QED1023B

TEST PIT #: 10

JOB: REPLACEMENT OF DISTRIBUTION AND  
TRUNK WATER MAIN IN CYPRESS AVE

TP DATE: 09-29-17

INSPECTOR: BNS

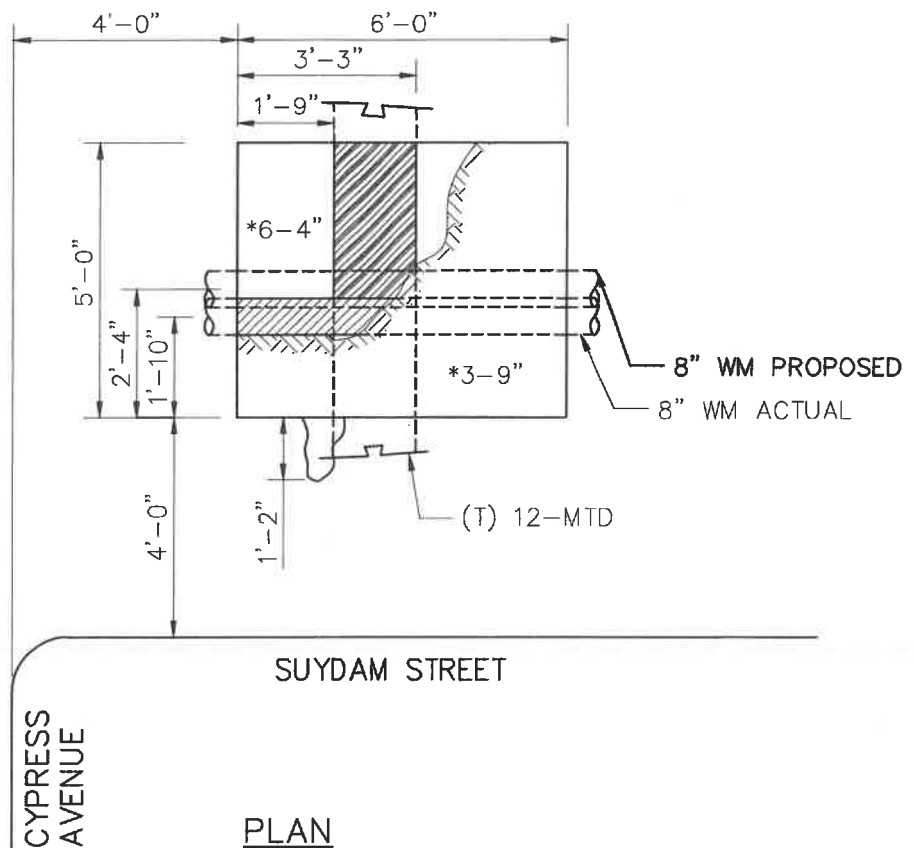
LOCATION: W/S SUYDAM ST. S/O CYPRESS AVE.

PURPOSE: LOCATE EXISTING UNDERGROUND FACILITIES

DIMENSION: 6'-0" X 5'-4" X 4'-3"

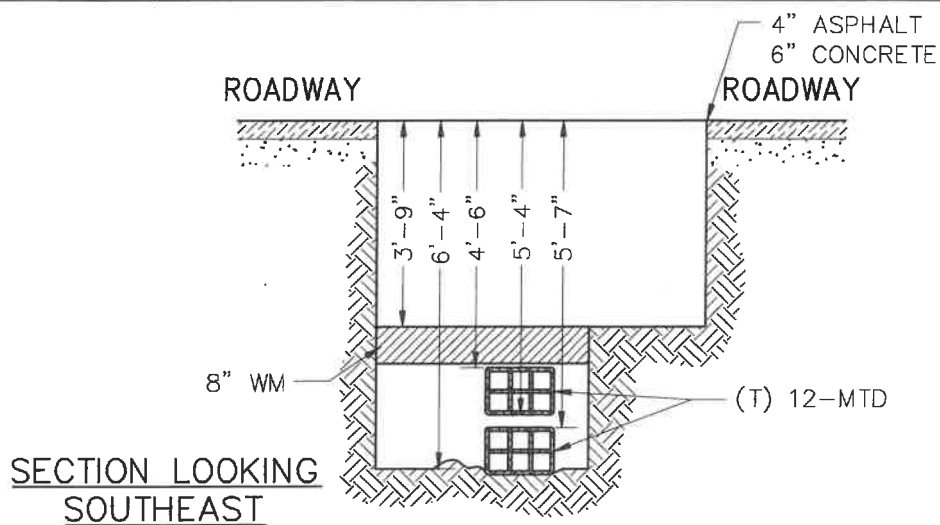
VOLUME: 6.7 CY

SHEET NO. 11 OF 28



NOTE:  
1. ALL DRAWINGS SHOWING UTILITY  
SUPPORT AND PROTECT WORK ARE  
FOR REFERENCE ONLY.

PLAN



SECTION LOOKING  
SOUTHEAST



JOB NO.: QED1023B

TEST PIT #: 11

JOB: REPLACEMENT OF DISTRIBUTION AND

TP DATE: 09/29/17

TRUNK WATER MAIN IN CYPRESS AVE

INSPECTOR: BNS

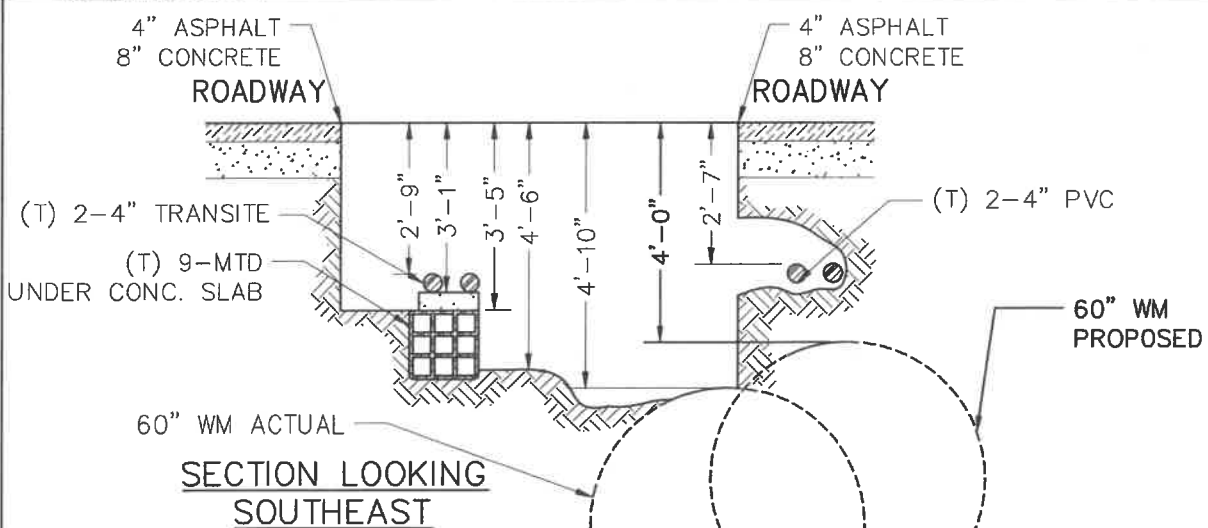
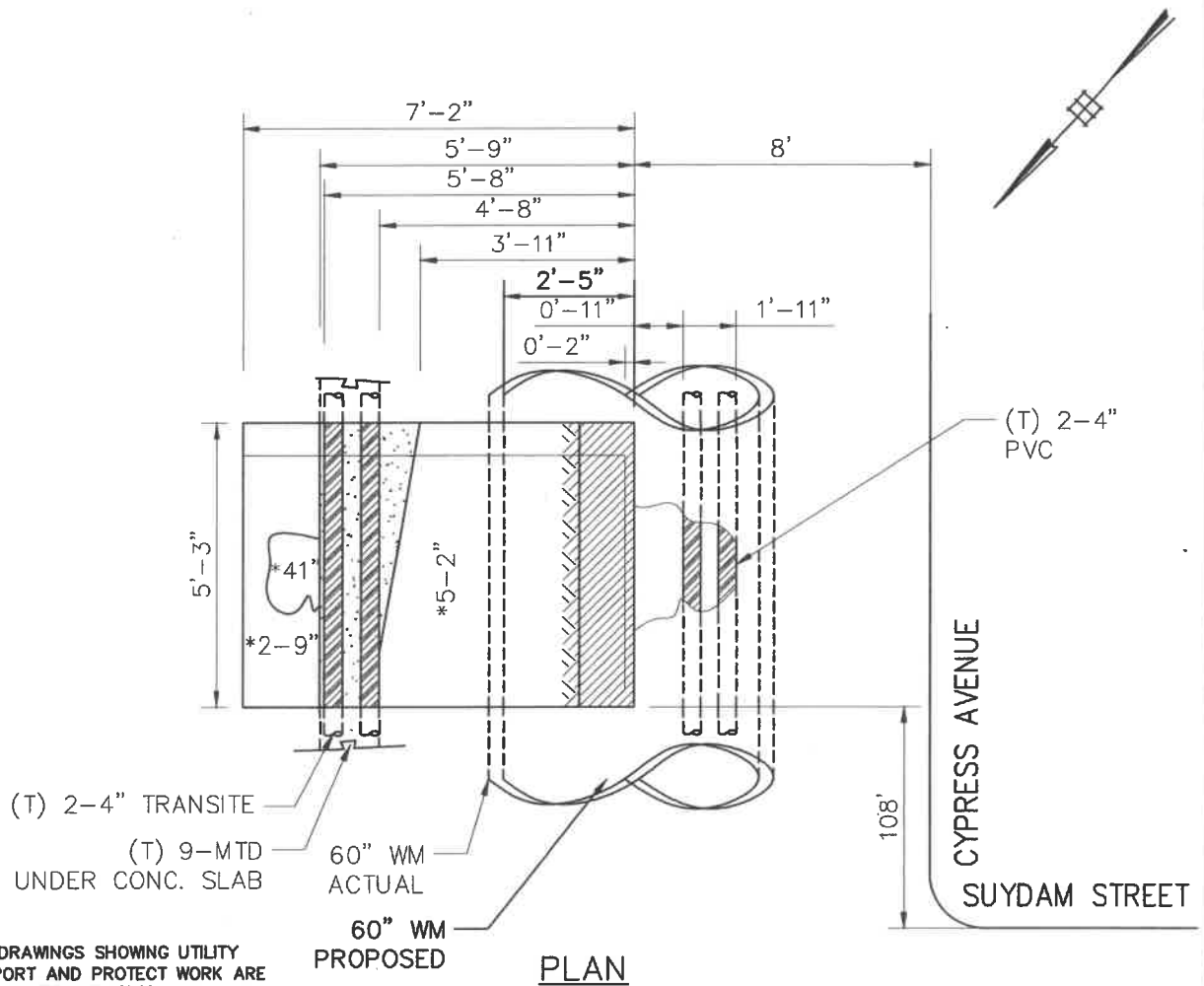
LOCATION: S/S CYPRESS AVE. E/O SUYDAM ST.

PURPOSE: LOCATE EXISTING UNDERGROUND FACILITIES

DIMENSION: 7'-2" X 5'-3" X 4'-3"

VOLUME: 5.9 CY

SHEET NO. 12 OF 28





JOB NO.: QED1023B

TEST PIT #: 12

JOB: REPLACEMENT OF DISTRIBUTION AND  
TRUNK WATER MAIN IN CYPRESS AVE

TP DATE: 10/02/17

INSPECTOR: YM

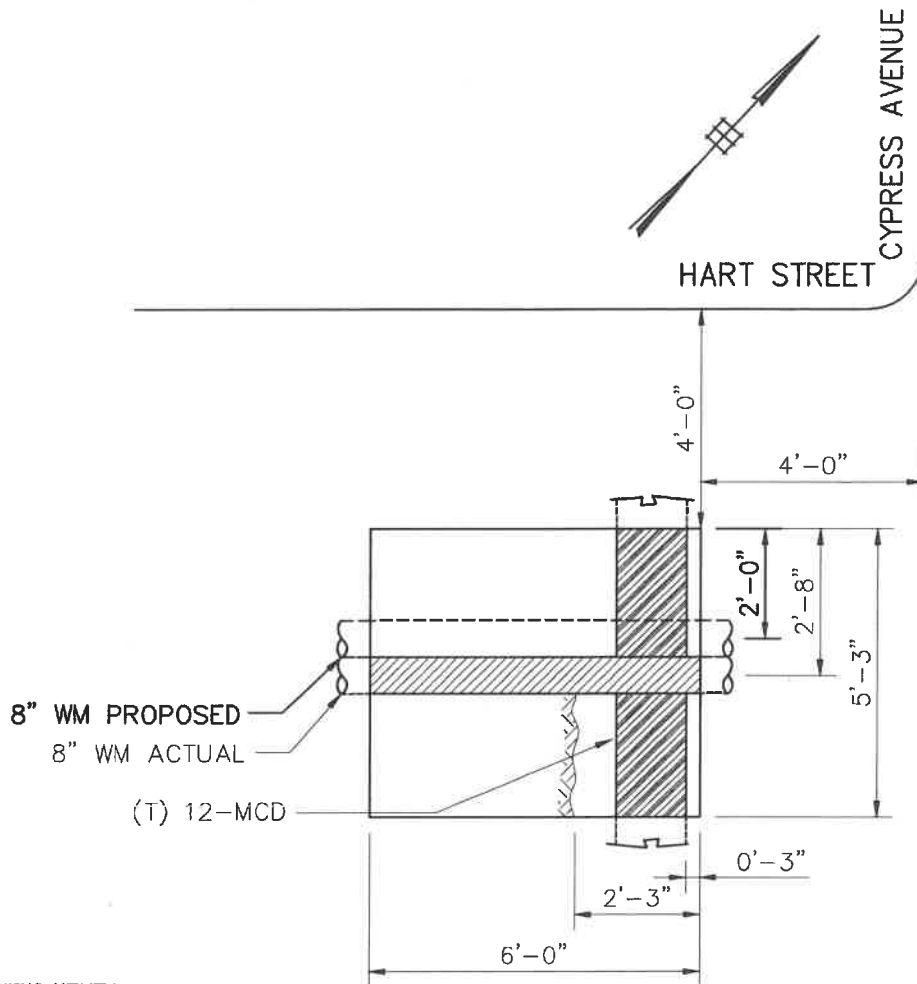
LOCATION: N/S HART ST. W/O CYPRESS AVE.

PURPOSE: LOCATE EXISTING UNDERGROUND FACILITIES

DIMENSION: 6'-0"X5'-3"X4'-6"

VOLUME: 5.3 CY

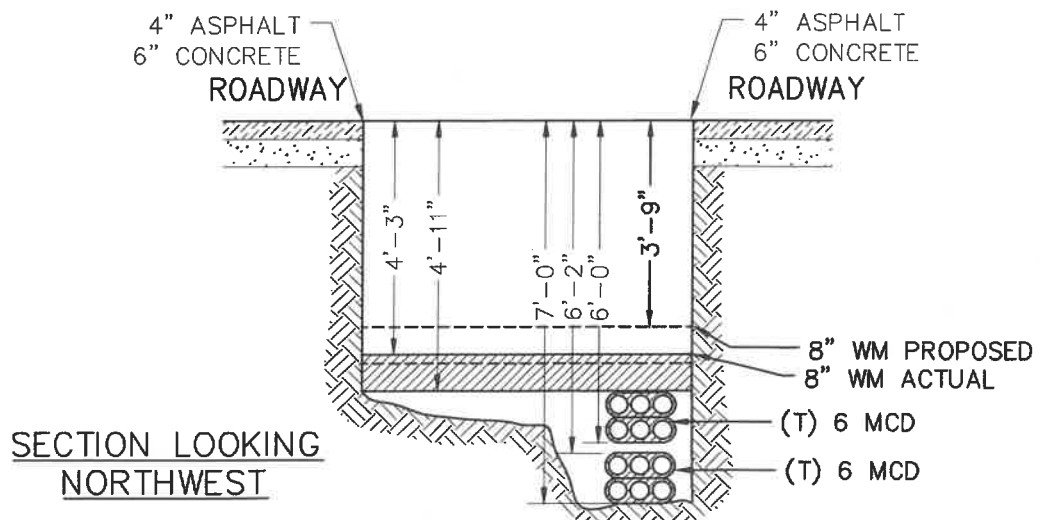
SHEET NO. 13 OF 28



PLAN

NOTE:

- 1. ALL DRAWINGS SHOWING UTILITY SUPPORT AND PROTECT WORK ARE FOR REFERENCE ONLY.



SECTION LOOKING  
NORTHWEST





JOB NO.: QED1023B

TEST PIT #: 13

JOB: REPLACEMENT OF DISTRIBUTION AND

TP DATE: 10/02/17

TRUNK WATER MAIN IN CYPRESS AVE

INSPECTOR: YM

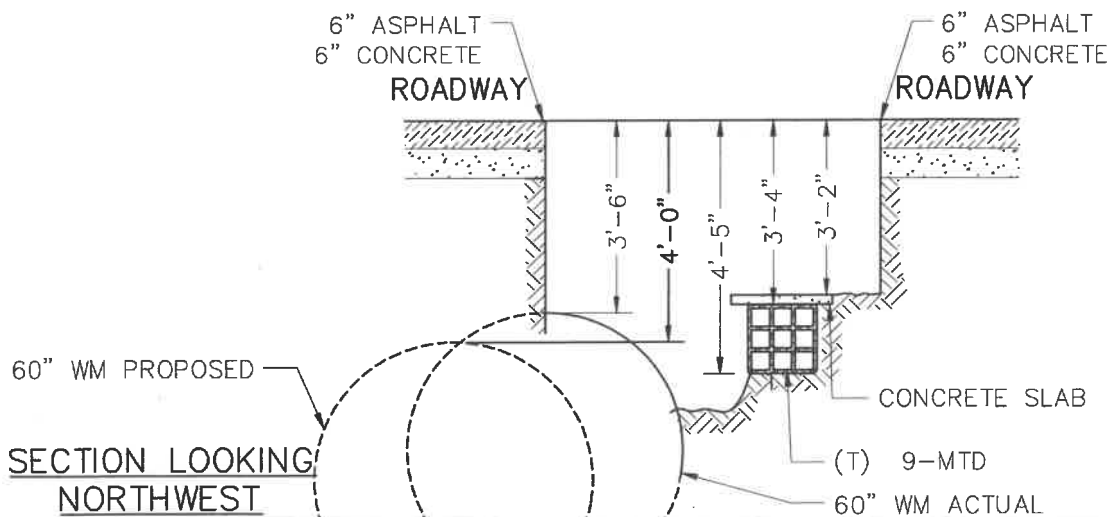
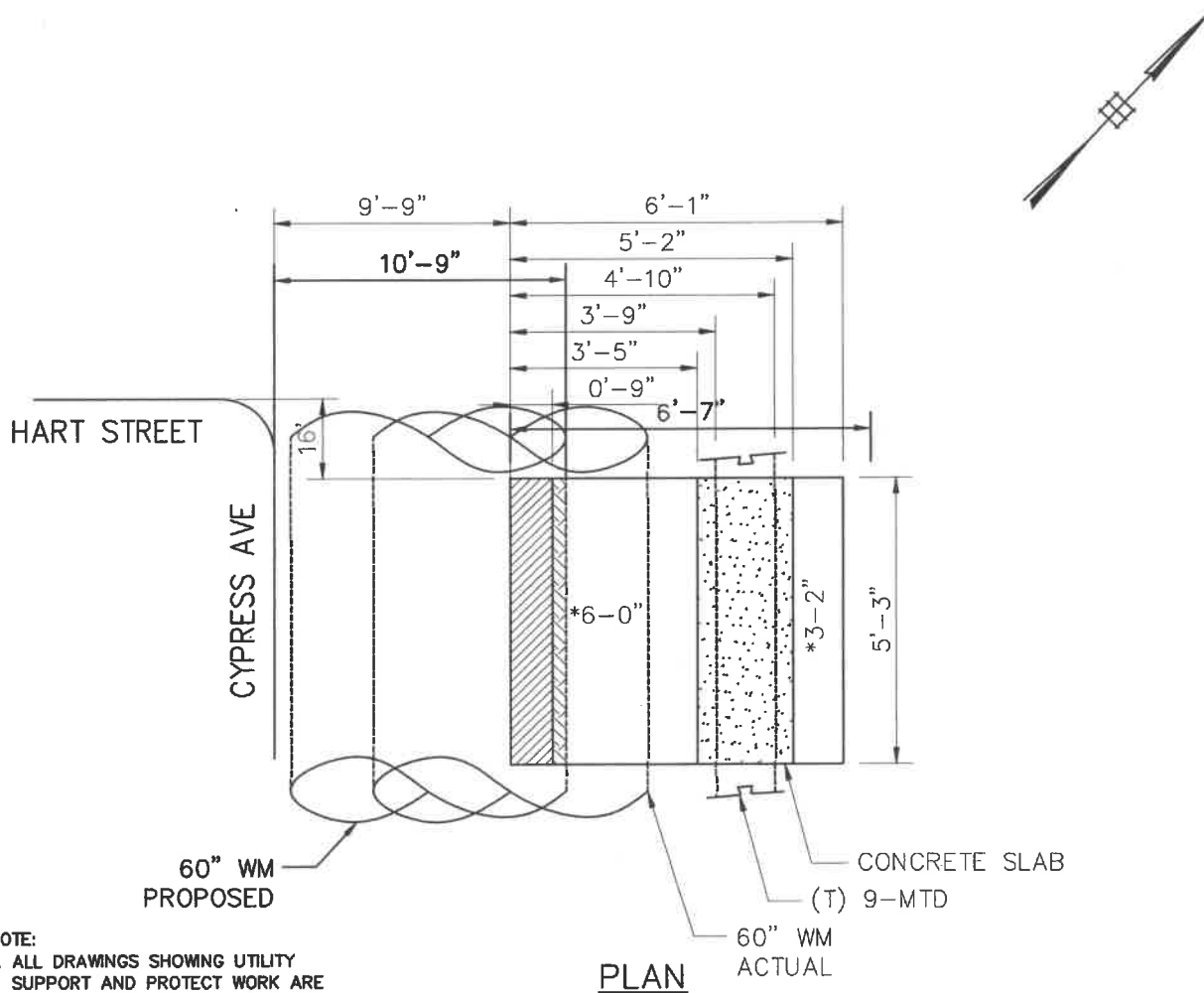
LOCATION: W/S CYPRESS AVE. S/O HART ST.

PURPOSE: LOCATE EXISTING UNDERGROUND FACILITIES

DIMENSION: 6'-1"X5'-3"X4'-8"

VOLUME: 5.5 CY

SHEET NO. 14 OF 28





JOB NO.: QED1023B

TEST PIT #: 14

JOB: REPLACEMENT OF DISTRIBUTION AND  
TRUNK WATER MAIN IN CYPRESS AVE

TP DATE: 10/02/17

INSPECTOR: YM

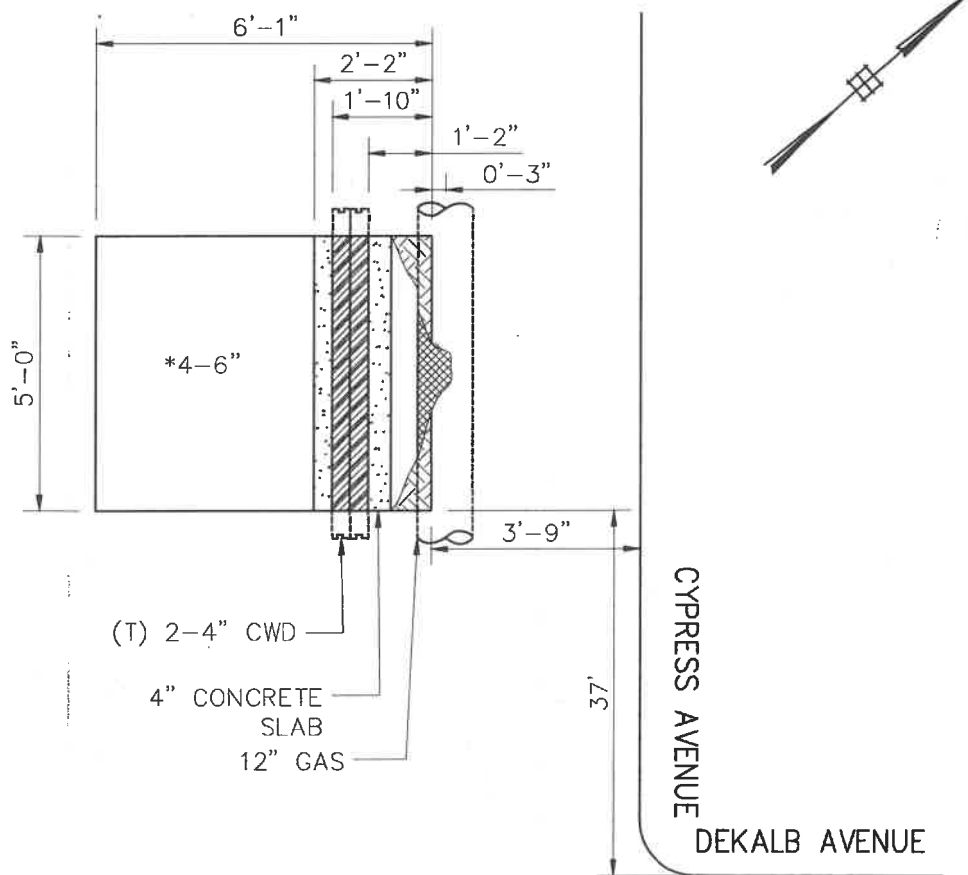
LOCATION: E/S CYPRESS AVE. N/O DEKALB AVE.

PURPOSE: LOCATE EXISTING UNDERGROUND FACILITIES

DIMENSION: 6'-1" X 5'-0" X 3'-8"

VOLUME: 4.1 CY

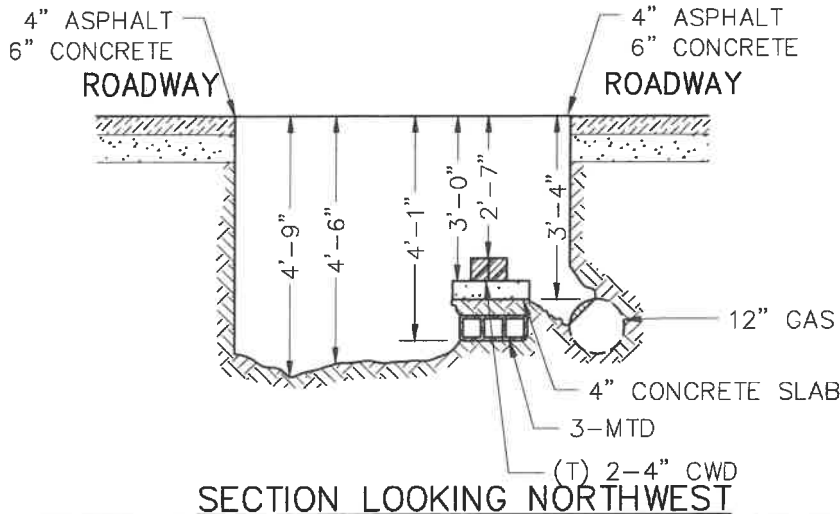
SHEET NO. 15 OF 28



**NOTE:**

1. ALL DRAWINGS SHOWING UTILITY SUPPORT AND PROTECT WORK ARE FOR REFERENCE ONLY.

**PLAN**



**SECTION LOOKING NORTHWEST**

JB-104



JOB NO.: QED1023B

TEST PIT #: 15

JOB: REPLACEMENT OF DISTRIBUTION AND

TP DATE: 10/02/17

TRUNK WATER MAIN IN CYPRESS AVE

INSPECTOR: YM

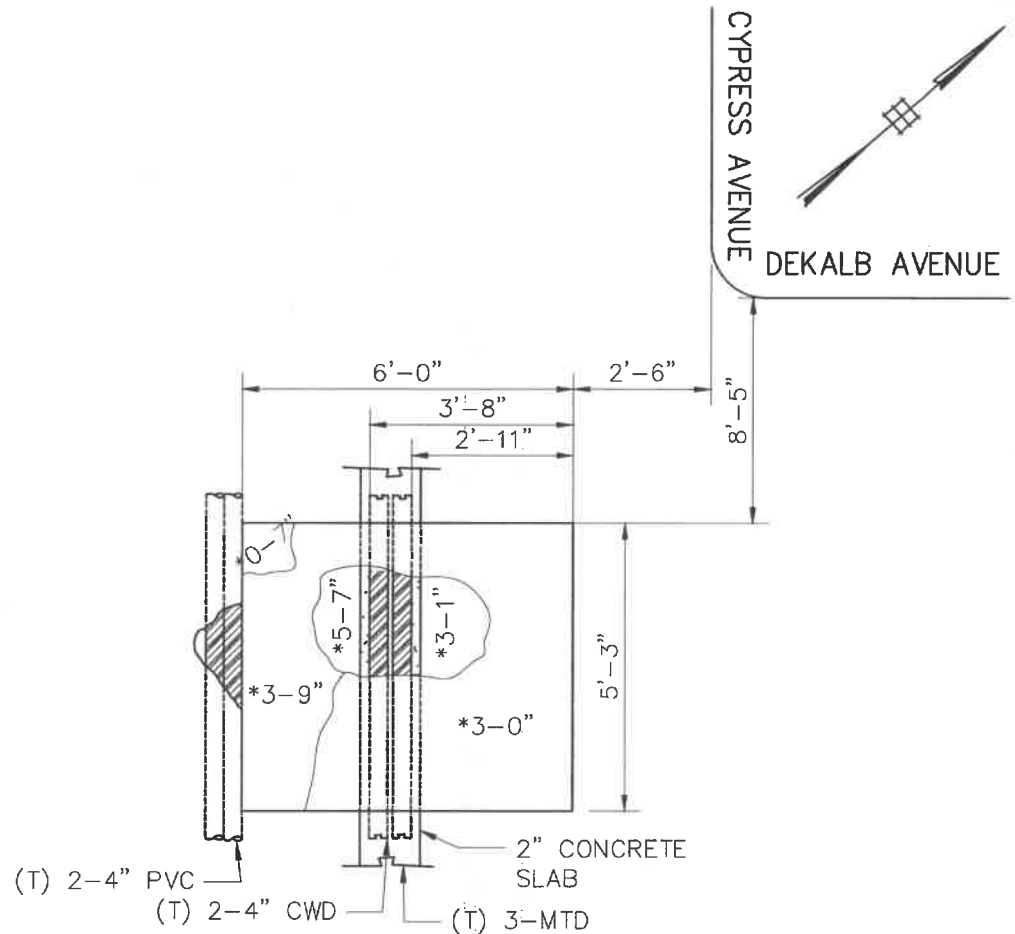
LOCATION: INTERSECTION OF CYPRESS AVE. AND DEKALB AVE.

PURPOSE: LOCATE EXISTING UNDERGROUND FACILITIES

DIMENSION: 6'-0"X5'-3"X3'-4"

VOLUME: 3.9 CY

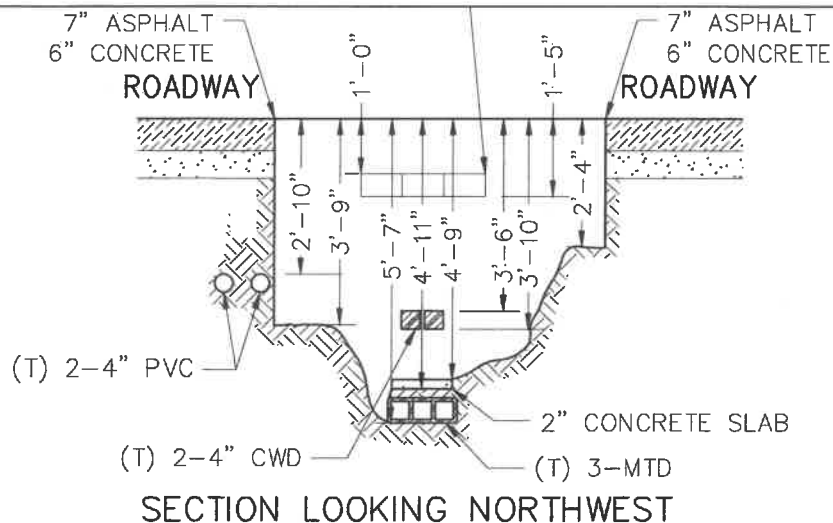
SHEET NO. 16 OF 28



**NOTE:**

1. ALL DRAWINGS SHOWING UTILITY SUPPORT AND PROTECT WORK ARE FOR REFERENCE ONLY.

**PLAN**



**SECTION LOOKING NORTHWEST**



JOB NO.: QED1023B

TEST PIT #: 16

JOB: REPLACEMENT OF DISTRIBUTION AND

TP DATE: 08/11/17

TRUNK WATER MAIN IN CYPRESS AVE

INSPECTOR: IN

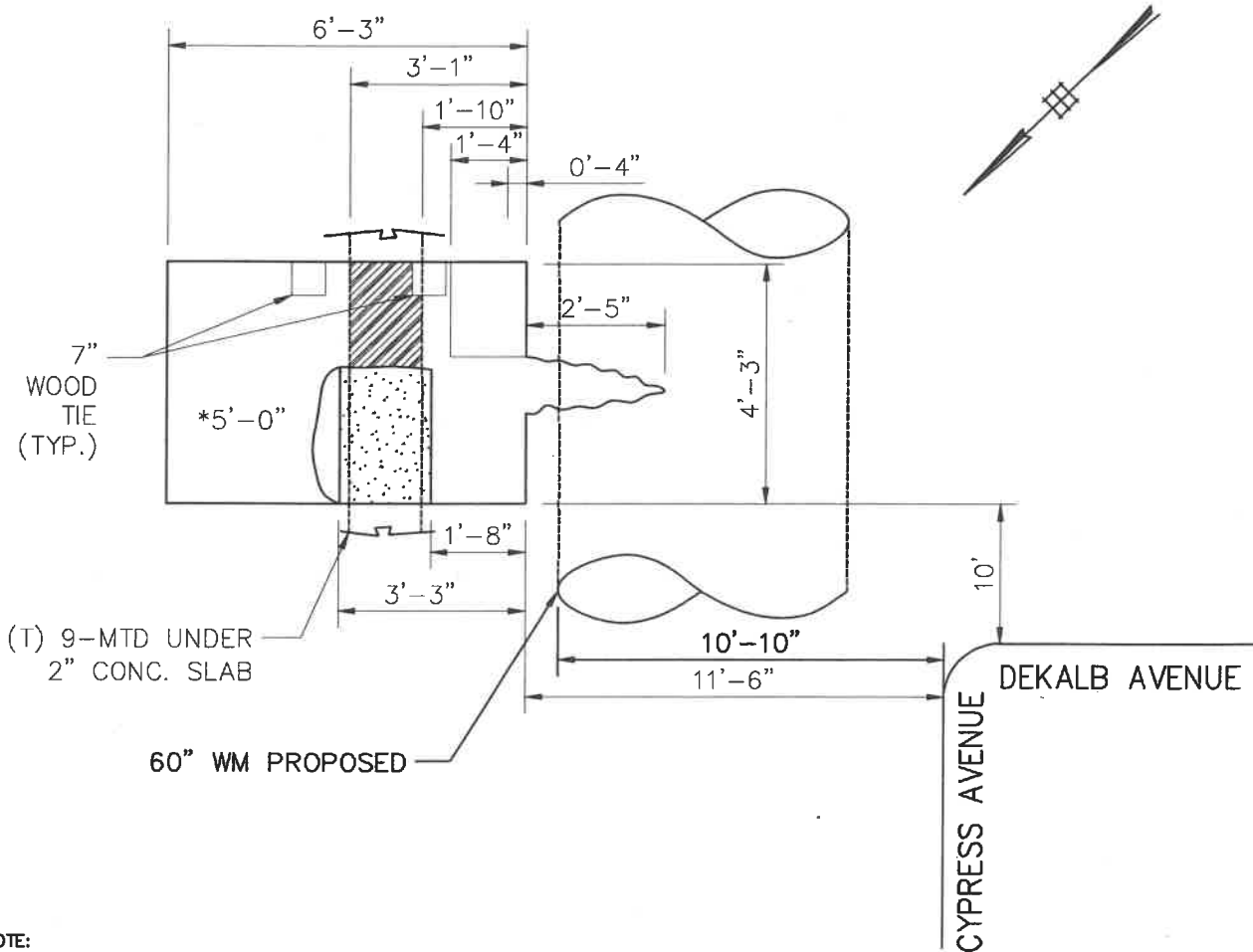
LOCATION: INTERSECTION OF CYPRESS AVE. AND DEKALB AVE.

PURPOSE: LOCATE EXISTING UNDERGROUND FACILITIES

DIMENSION: 6'-3" X 4'-3" X 5'-1"

VOLUME: 5.0 CY

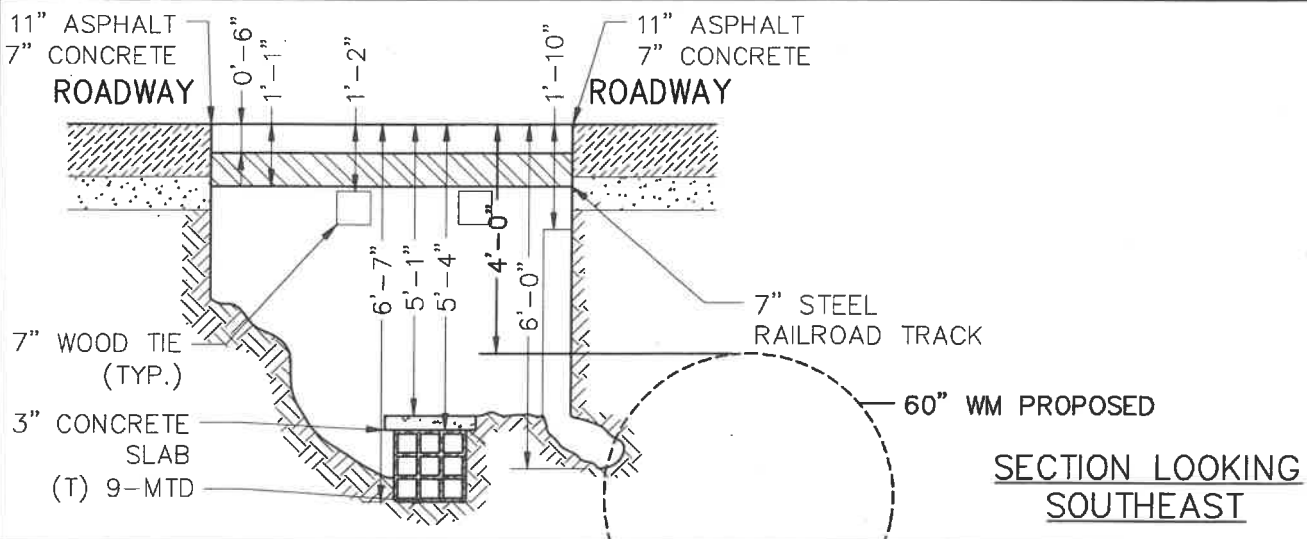
SHEET NO. 17 OF 28



NOTE:

1. ALL DRAWINGS SHOWING UTILITY SUPPORT AND PROTECT WORK ARE FOR REFERENCE ONLY.

PLAN





JOB NO.: QED1023B

TEST PIT #: 17

JOB: REPLACEMENT OF DISTRIBUTION AND  
TRUNK WATER MAIN IN CYPRESS AVE

TP DATE: 08/11/17  
INSPECTOR: IN

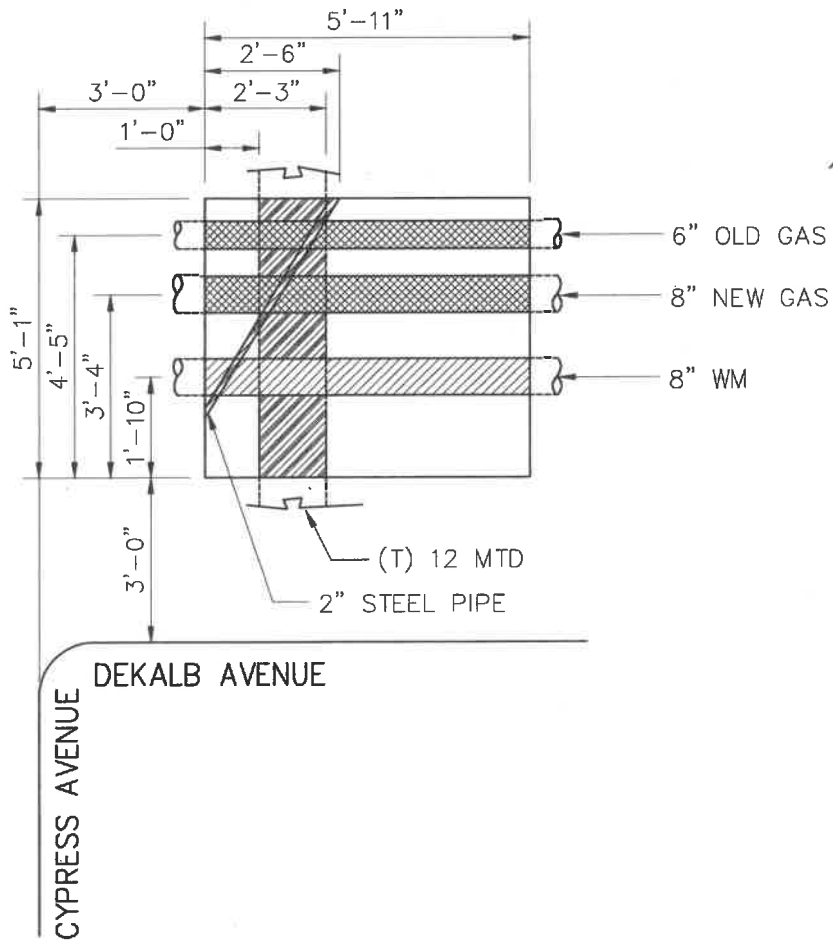
LOCATION: W/S DEKALB AVE. S/O CYPRESS AVE.

PURPOSE: LOCATE EXISTING UNDERGROUND FACILITIES

DIMENSION: 5'-11"X5'-1"X3'-10"

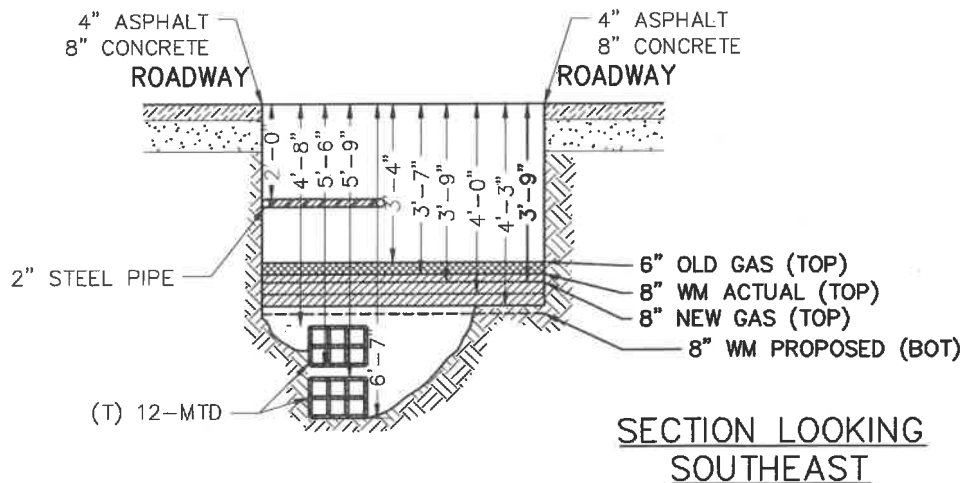
VOLUME: 4.3 CY

SHEET NO. 18 OF 28



NOTE:  
1. ALL DRAWINGS SHOWING UTILITY  
SUPPORT AND PROTECT WORK ARE  
FOR REFERENCE ONLY.

PLAN



SECTION LOOKING  
SOUTHEAST



JOB NO.: QED1023B

TEST PIT #: 18

JOB: REPLACEMENT OF DISTRIBUTION AND  
TRUNK WATER MAIN IN CYPRESS AVE

TP DATE: 10/6/17  
INSPECTOR: DNS

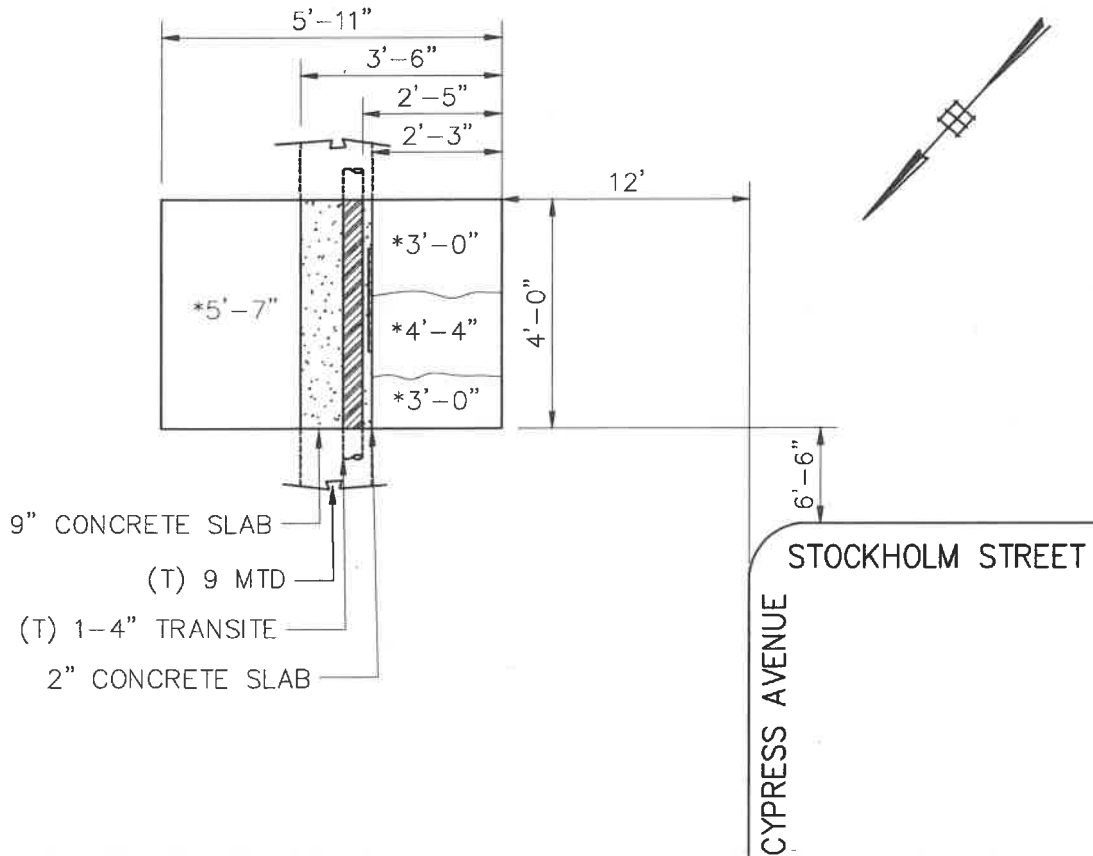
LOCATION: INTERSECTION OF STOCKHOLM ST. AND CYPRESS AVE.

PURPOSE: LOCATE EXISTING UNDERGROUND FACILITIES

DIMENSION: 5'-11" X 4'-0" X 3'-8"

VOLUME: 3.2 CY

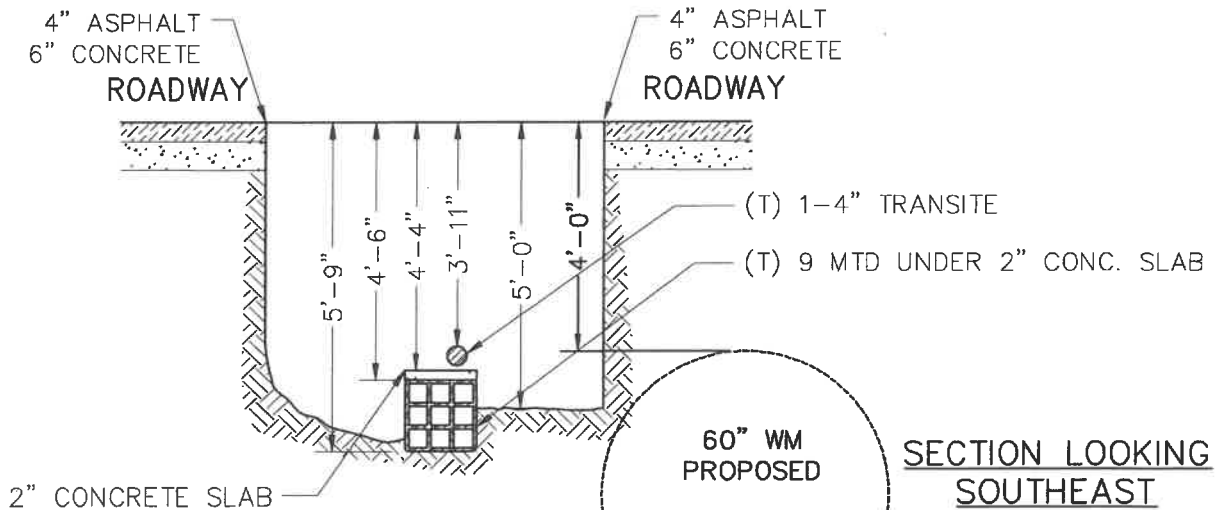
SHEET NO. 19 OF 28



NOTE:

- 1. ALL DRAWINGS SHOWING UTILITY SUPPORT AND PROTECT WORK ARE FOR REFERENCE ONLY.

PLAN



SECTION LOOKING  
SOUTHEAST



JOB NO.: QED1023B

TEST PIT #: 19

JOB: REPLACEMENT OF DISTRIBUTION AND

TP DATE: 08/11/17

TRUNK WATER MAIN IN CYPRESS AVE

INSPECTOR: YM

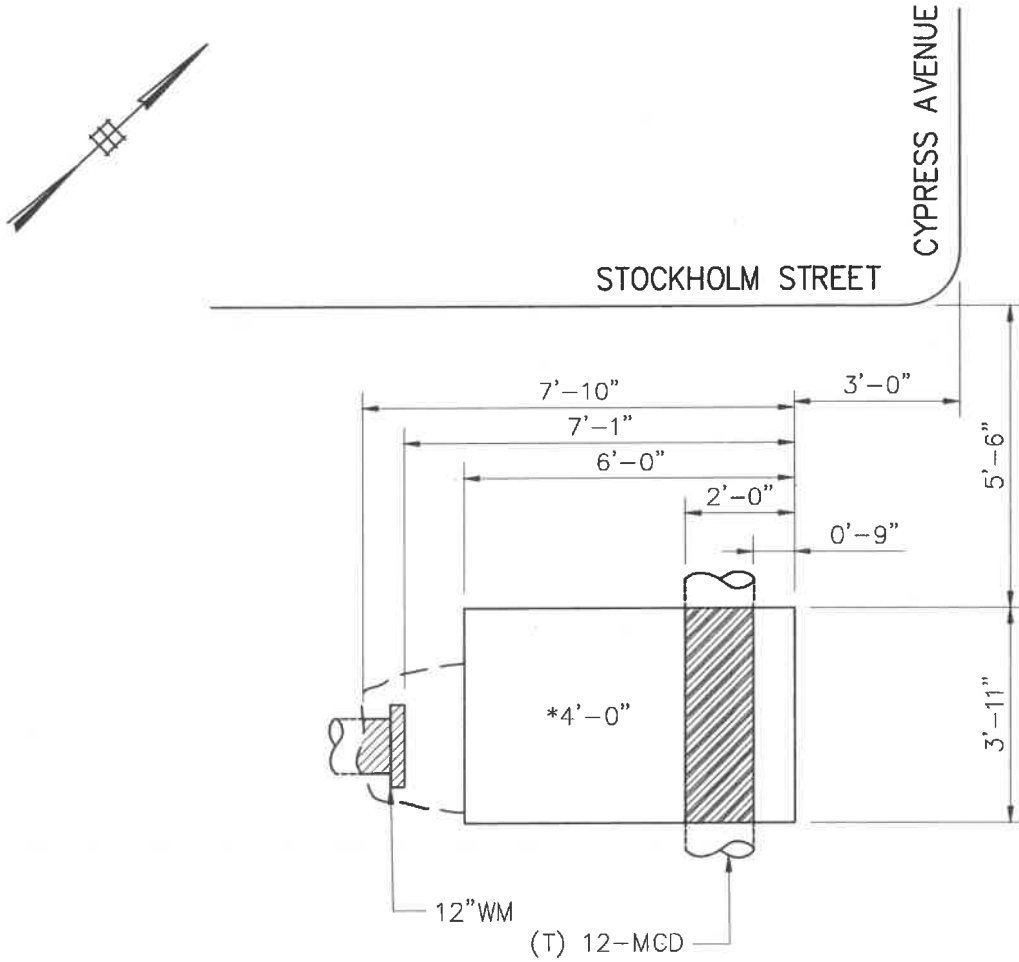
LOCATION: N/S STOCKHOLM ST. W/O CYPRESS AVE.

PURPOSE: LOCATE EXISTING UNDERGROUND FACILITIES

DIMENSION: 6'-0" X 3'-11" X 4'-1"

VOLUME: 3.6 CY

SHEET NO. 20 OF 28

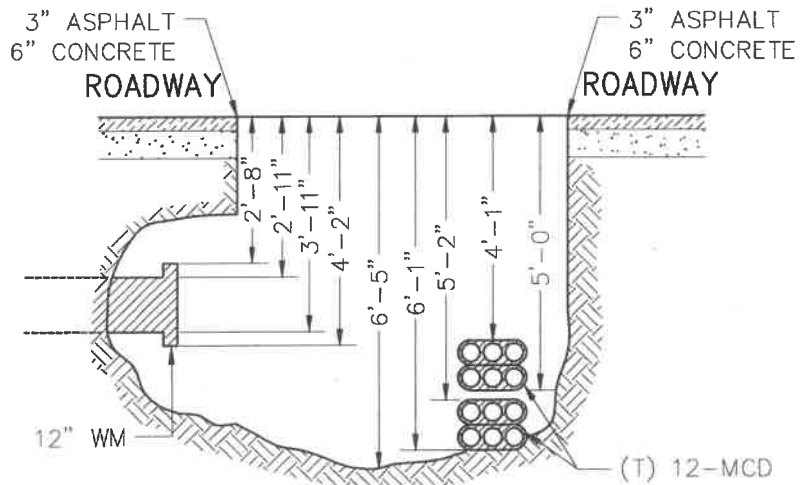


NOTE:

- 1. ALL DRAWINGS SHOWING UTILITY SUPPORT AND PROTECT WORK ARE FOR REFERENCE ONLY.

PLAN

SECTION LOOKING NORTHWEST





JOB NO.: QED1023B

TEST PIT #: 20

JOB: REPLACEMENT OF DISTRIBUTION AND

TP DATE: 10/10/17

TRUNK WATER MAIN IN CYPRESS AVE

INSPECTOR: YM

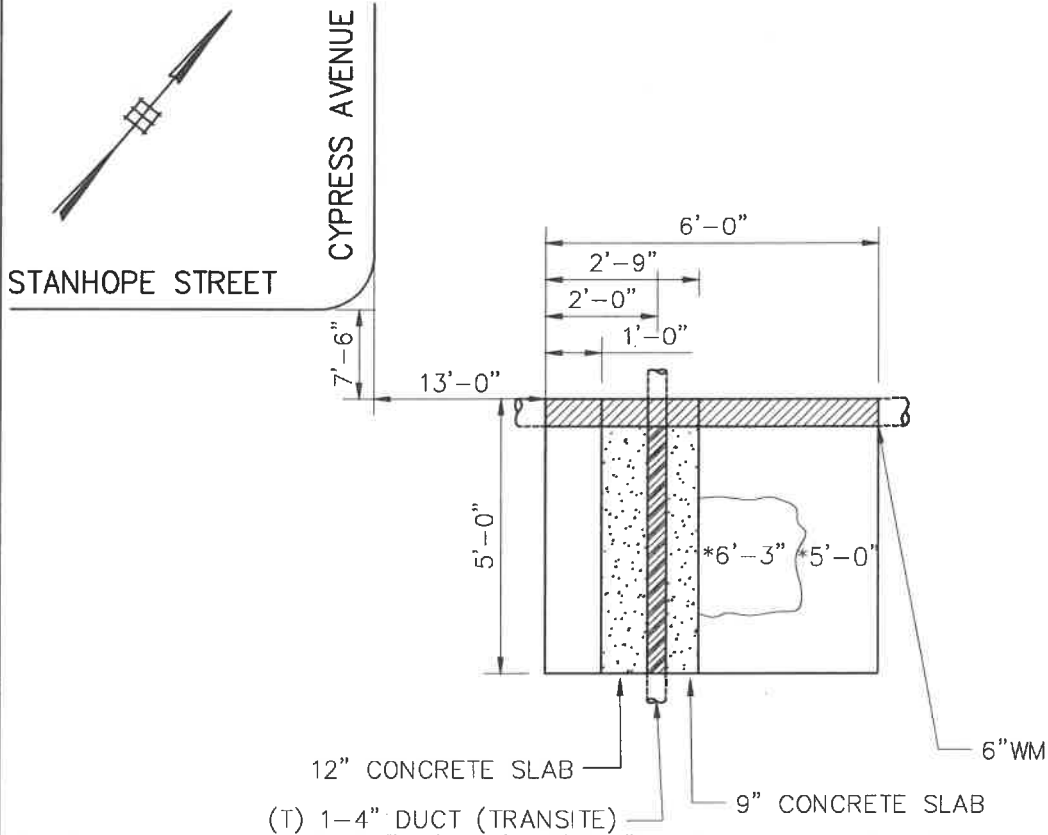
LOCATION: INTERSECTION OF STANHOPE ST. AND CYPRESS AVE.

PURPOSE: LOCATE EXISTING UNDERGROUND FACILITIES

DIMENSION: 6'-0" X 5'-0" X 5'-3"

VOLUME: 5.8 CY

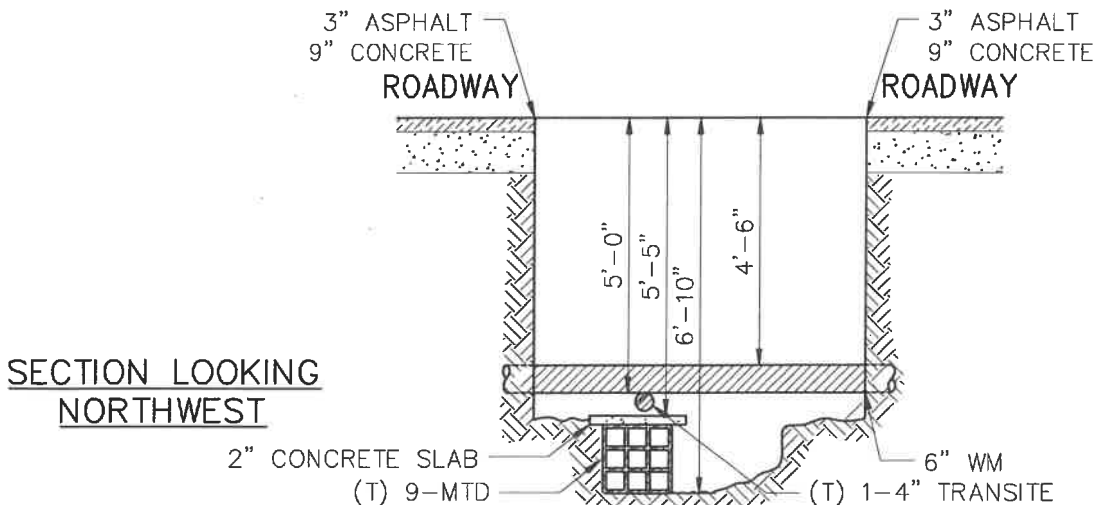
SHEET NO. 21 OF 28



NOTE:

- 1. ALL DRAWINGS SHOWING UTILITY SUPPORT AND PROTECT WORK ARE FOR REFERENCE ONLY.

PLAN



SECTION LOOKING NORTHWEST

JB-110





JOB NO.: QED1023B

TEST PIT #: 21

JOB: REPLACEMENT OF DISTRIBUTION AND

TP DATE: 10/10/17

TRUNK WATER MAIN IN CYPRESS AVE

INSPECTOR: YM

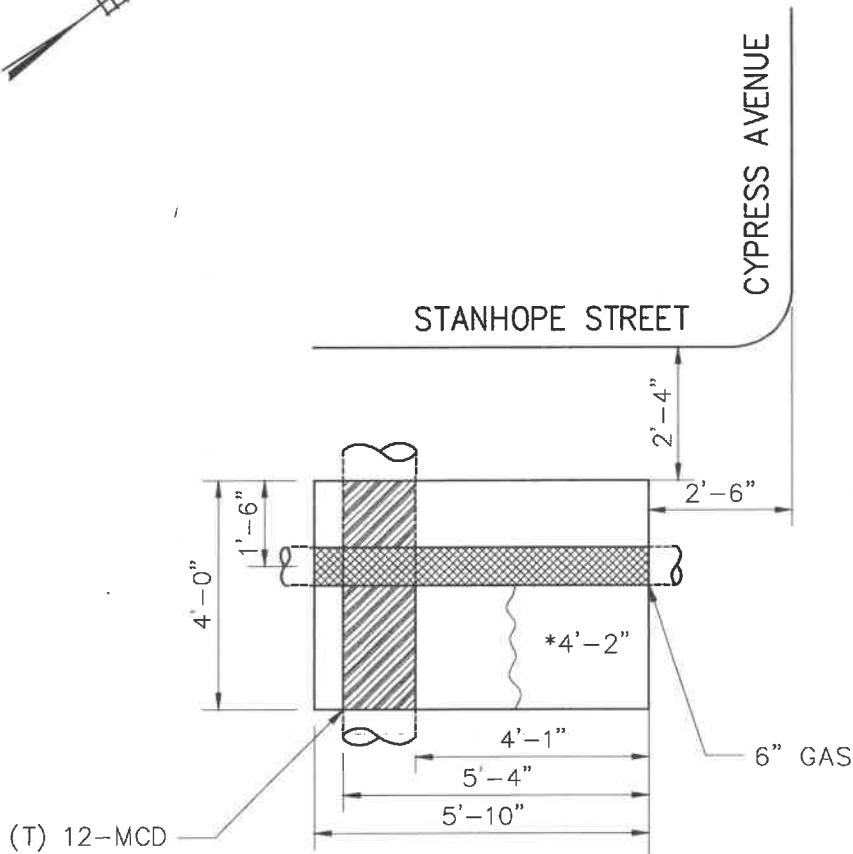
LOCATION: W/S STANHOPE ST. S/O CYPRESS AVE.

PURPOSE: LOCATE EXISTING UNDERGROUND FACILITIES

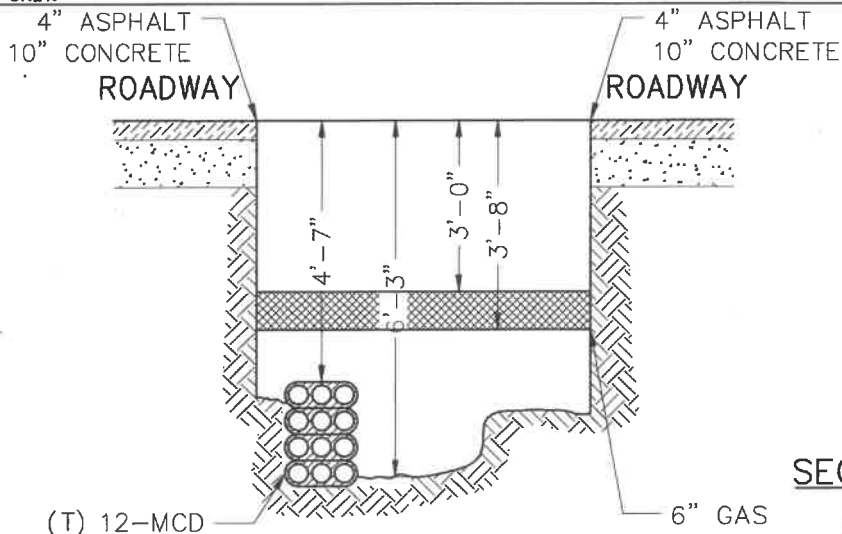
DIMENSION: 5'-10"X4'-0"X4'-2"

VOLUME: 3.6 CY

SHEET NO. 22 OF 28



PLAN



SECTION LOOKING  
NORTHWEST



JOB NO.: QED1023B

TEST PIT #: 22

JOB: REPLACEMENT OF DISTRIBUTION AND

TP DATE: 10/10/17

TRUNK WATER MAIN IN CYPRESS AVE

INSPECTOR: YM

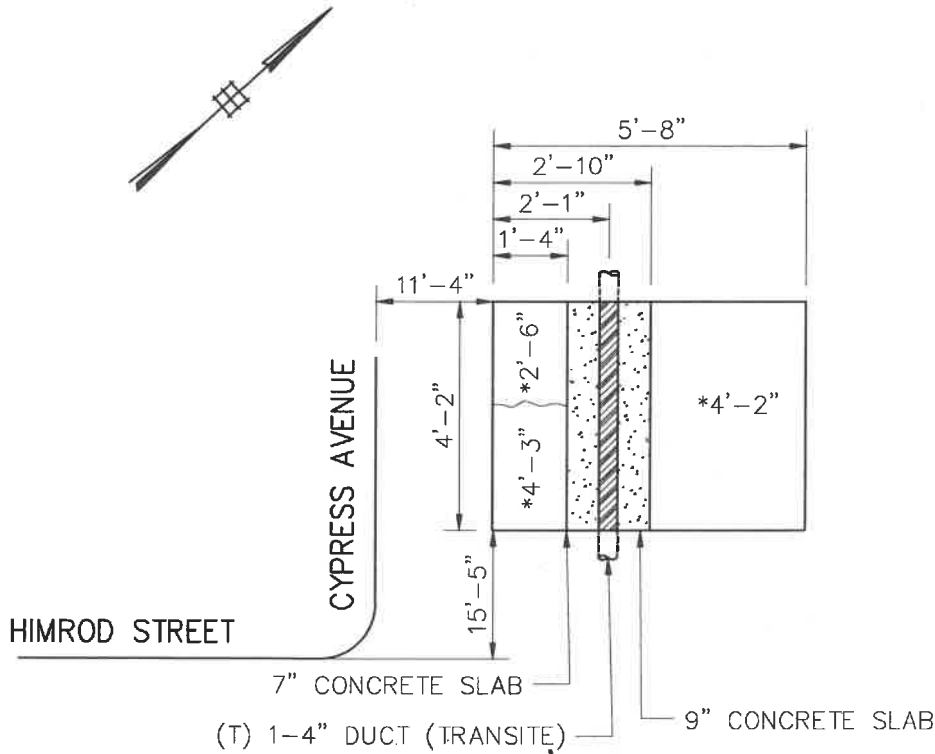
LOCATION: S/S CYPRESS AVE. W/O HIMROD ST.

PURPOSE: LOCATE EXISTING UNDERGROUND FACILITIES

DIMENSION: 5'-8"X4'-2"X3'-11"

VOLUME: 3.4 CY

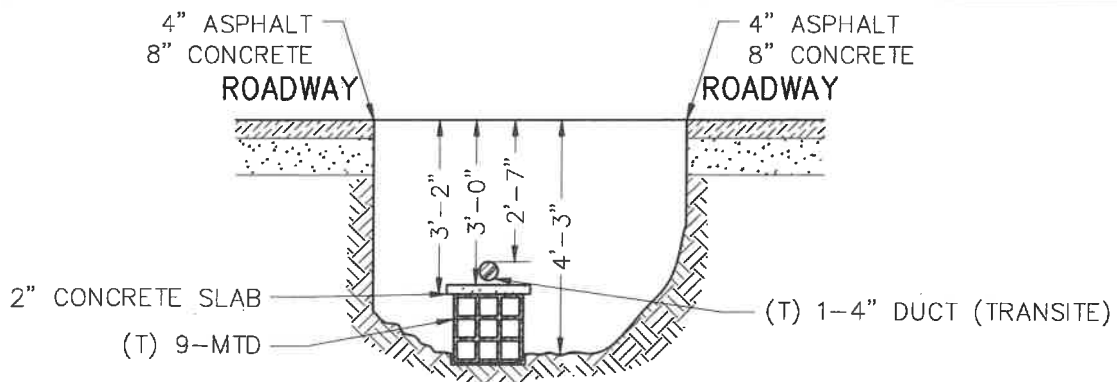
SHEET NO. 23 OF 28



NOTE:

1. ALL DRAWINGS SHOWING UTILITY SUPPORT AND PROTECT WORK ARE FOR REFERENCE ONLY.

PLAN



SECTION LOOKING  
NORTHWEST



JOB NO.: QED1023B

TEST PIT #: 23

JOB: REPLACEMENT OF DISTRIBUTION AND

TP DATE: 10/10/17

TRUNK WATER MAIN IN CYPRESS AVE

INSPECTOR: YM

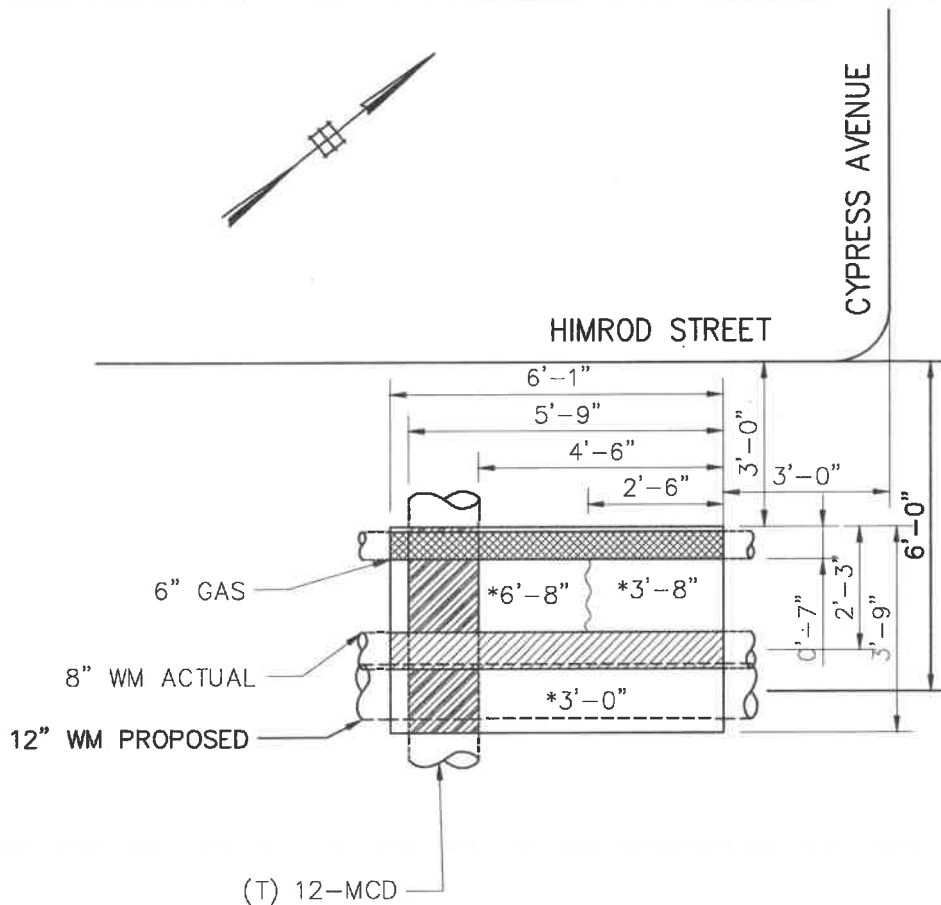
LOCATION: W/S HIMROD ST. S/O CYPRESS AVE.

PURPOSE: LOCATE EXISTING UNDERGROUND FACILITIES

DIMENSION: 6'-1"X3'-9"X3'-10"

VOLUME: 3.2 CY

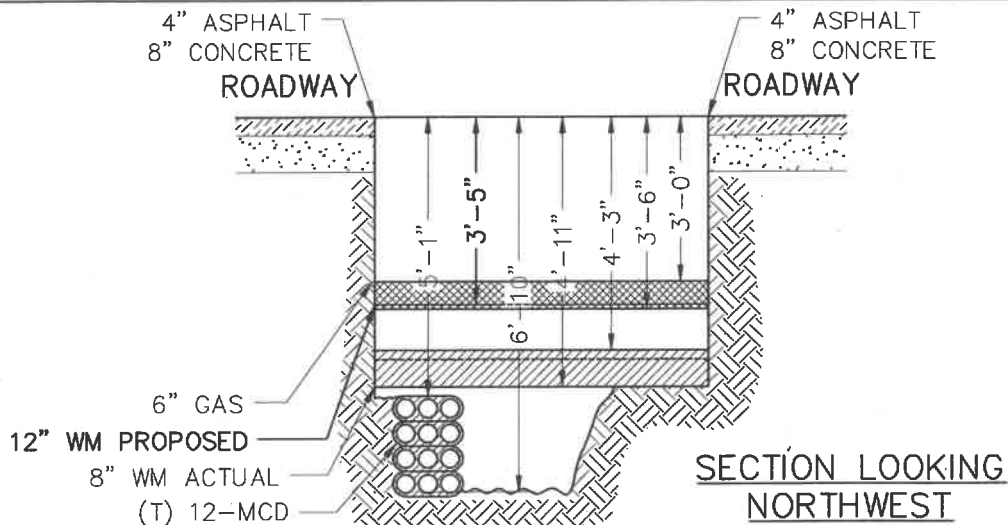
SHEET NO. 24 OF 28



NOTE:

- 1. ALL DRAWINGS SHOWING UTILITY SUPPORT AND PROTECT WORK ARE FOR REFERENCE ONLY.

PLAN





JOB NO.: QED1023B  
JOB: REPLACEMENT OF DISTRIBUTION AND  
TRUNK WATER MAIN IN CYPRESS AVE

TEST PIT #: 24  
TP DATE: 08/10/17  
INSPECTOR: BNS

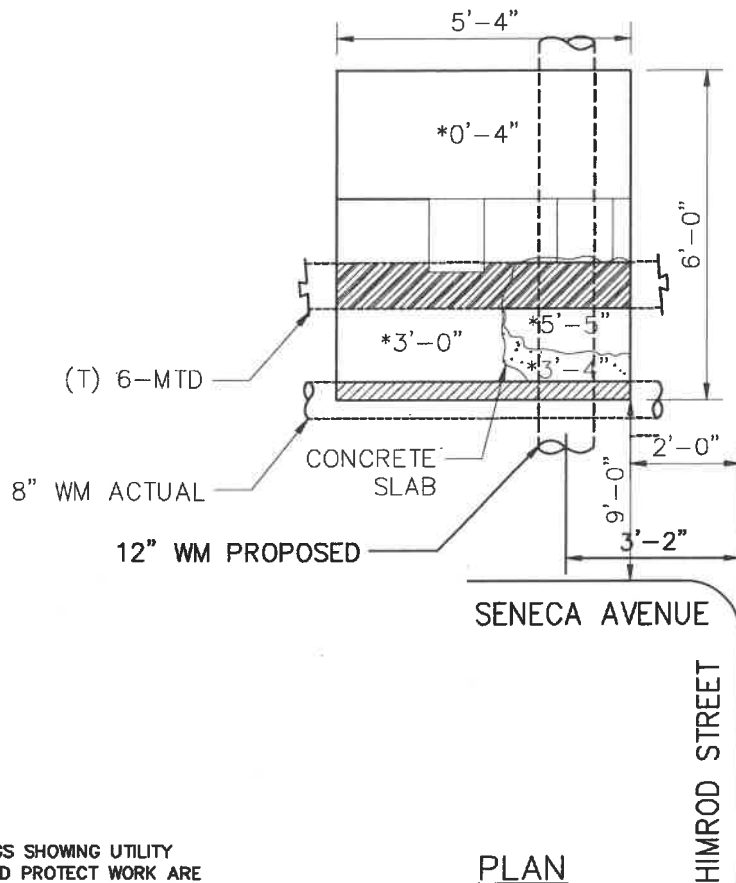
LOCATION: S/S SENECA AVE. W/O HIMROD ST.

PURPOSE: LOCATE EXISTING UNDERGROUND FACILITIES

DIMENSION: 5'-4"X6'-0"X2'-3"

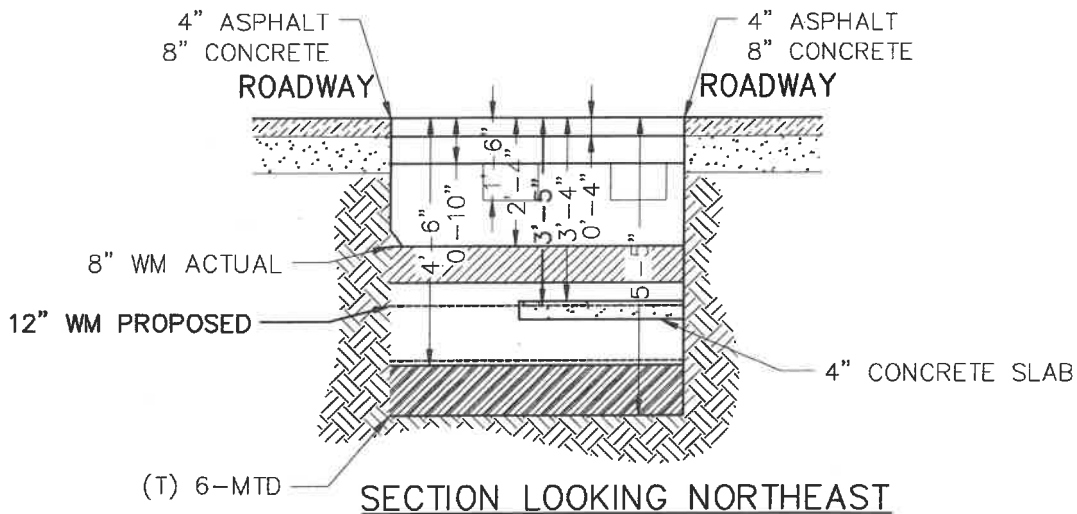
VOLUME: 2.7 CY

SHEET NO. 25 OF 28



NOTE:  
1. ALL DRAWINGS SHOWING UTILITY  
SUPPORT AND PROTECT WORK ARE  
FOR REFERENCE ONLY.

PLAN



SECTION LOOKING NORTHEAST



JOB NO.: QED1023B

TEST PIT #: 25

JOB: REPLACEMENT OF DISTRIBUTION AND

TP DATE: 08/10/2017

TRUNK WATER MAIN IN CYPRESS AVE

INSPECTOR: IN

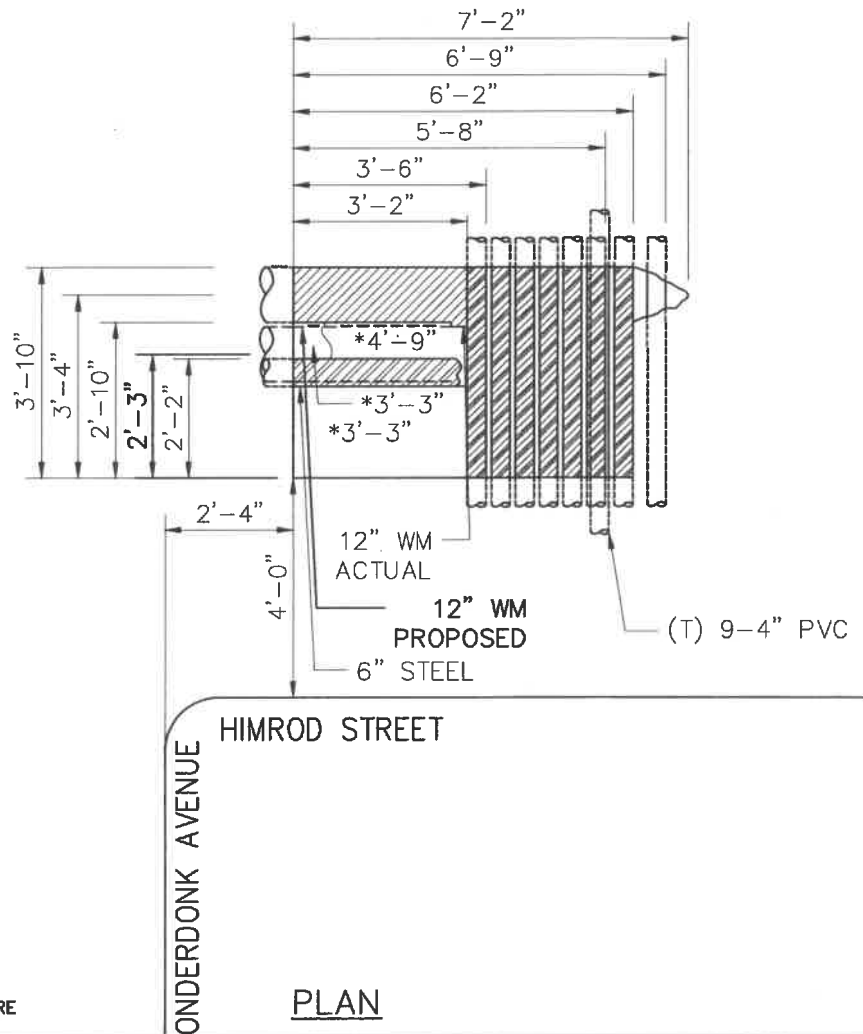
LOCATION: W/S HIMROD ST. S/O ONDERDONK AVE.

PURPOSE: LOCATE EXISTING UNDERGROUND FACILITIES

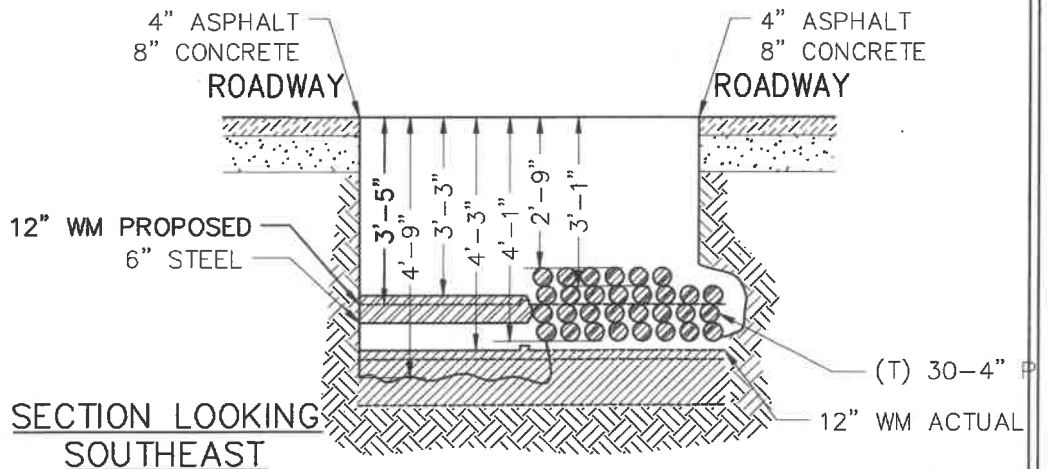
DIMENSION: 6'-2"X3'-10"X3'-5"

VOLUME: 3.6 CY

SHEET NO. 26 OF 28



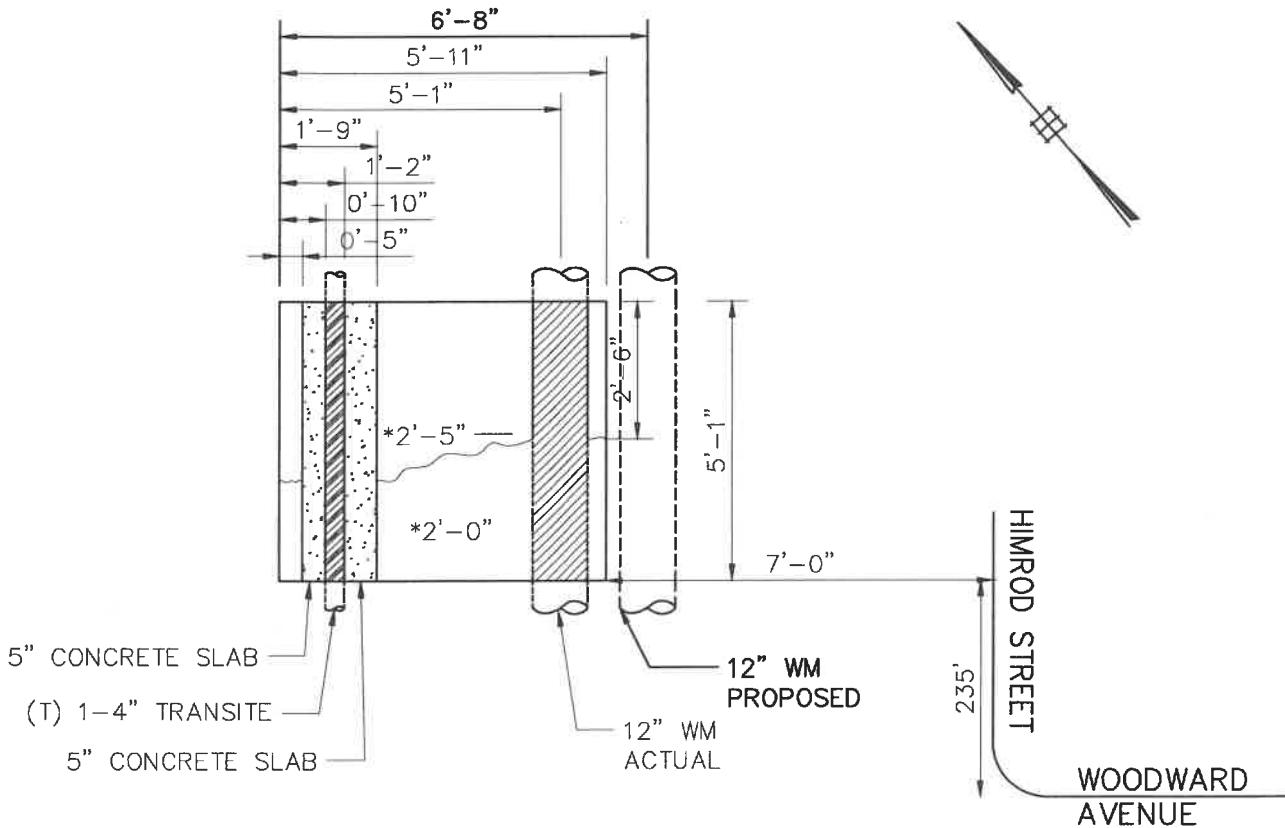
NOTE:  
1. ALL DRAWINGS SHOWING UTILITY  
SUPPORT AND PROTECT WORK ARE  
FOR REFERENCE ONLY.





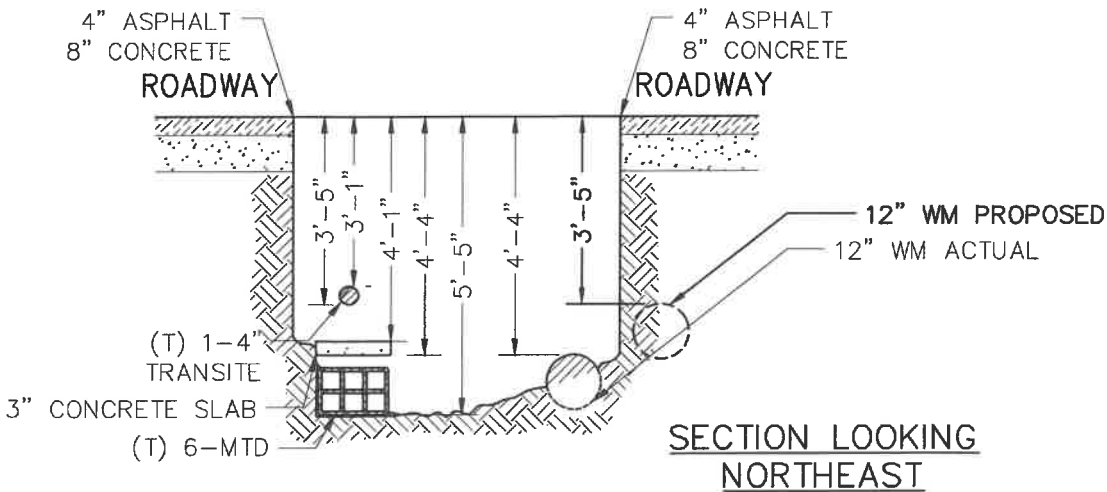
JOB NO.: QED1023B TEST PIT #: 26  
JOB: REPLACEMENT OF DISTRIBUTION AND TP DATE: 10/12/17  
TRUNK WATER MAIN IN CYPRESS AVE INSPECTOR: DNS

LOCATION: E/S HIMROD ST. N/O WOODWARD AVE.  
PURPOSE: LOCATE EXISTING UNDERGROUND FACILITIES  
DIMENSION: 6'-8"X5'-1"X3'-6" VOLUME: 4.4 CY SHEET NO. 27 OF 28



NOTE:  
1. ALL DRAWINGS SHOWING UTILITY SUPPORT AND PROTECT WORK ARE FOR REFERENCE ONLY.

PLAN



SECTION LOOKING NORTHEAST



JOB NO.: QED1023B

TEST PIT #: 27

JOB: REPLACEMENT OF DISTRIBUTION AND

TP. DATE: 10/12/17

TRUNK WATER MAIN IN CYPRESS AVE

INSPECTOR: DNS

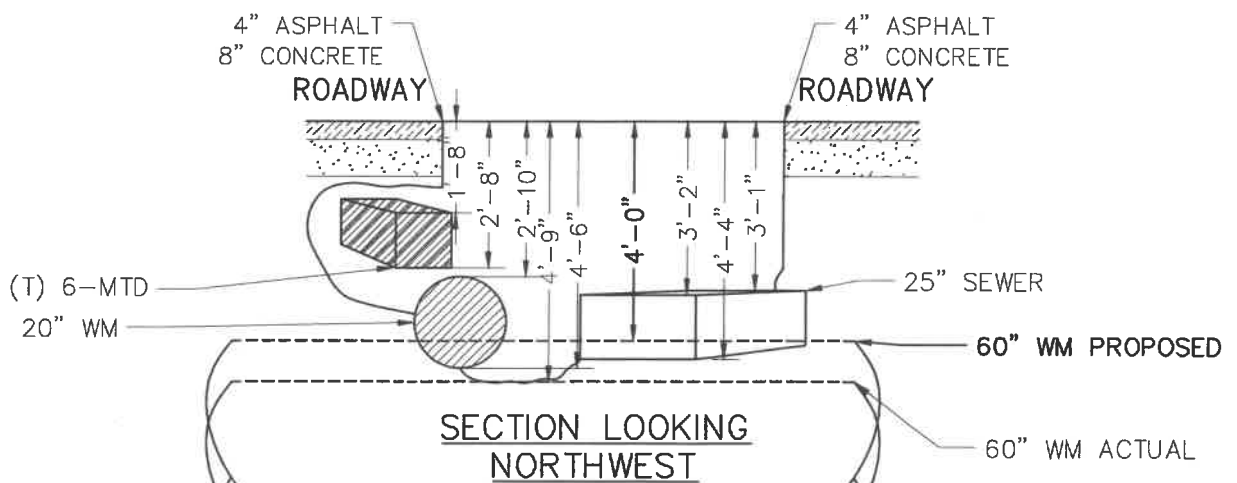
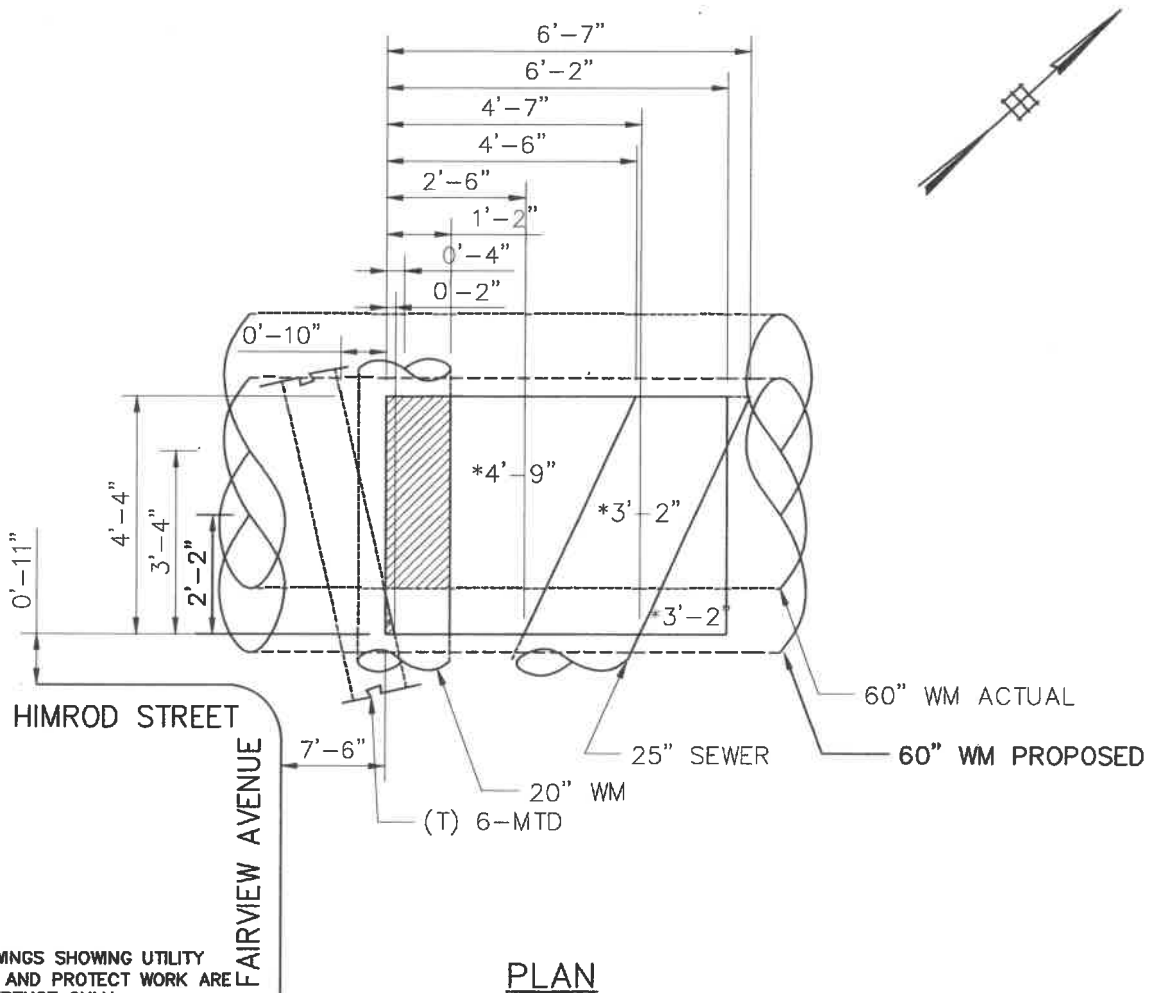
LOCATION: INTERSECTION OF HIMROD ST. AND FAIRVIEW AVE.

PURPOSE: LOCATE EXISTING UNDERGROUND FACILITIES

DIMENSION: 6'-2" X 4'-4" X 4'-4"

VOLUME: 4.3 CY

SHEET NO. 28 OF 28

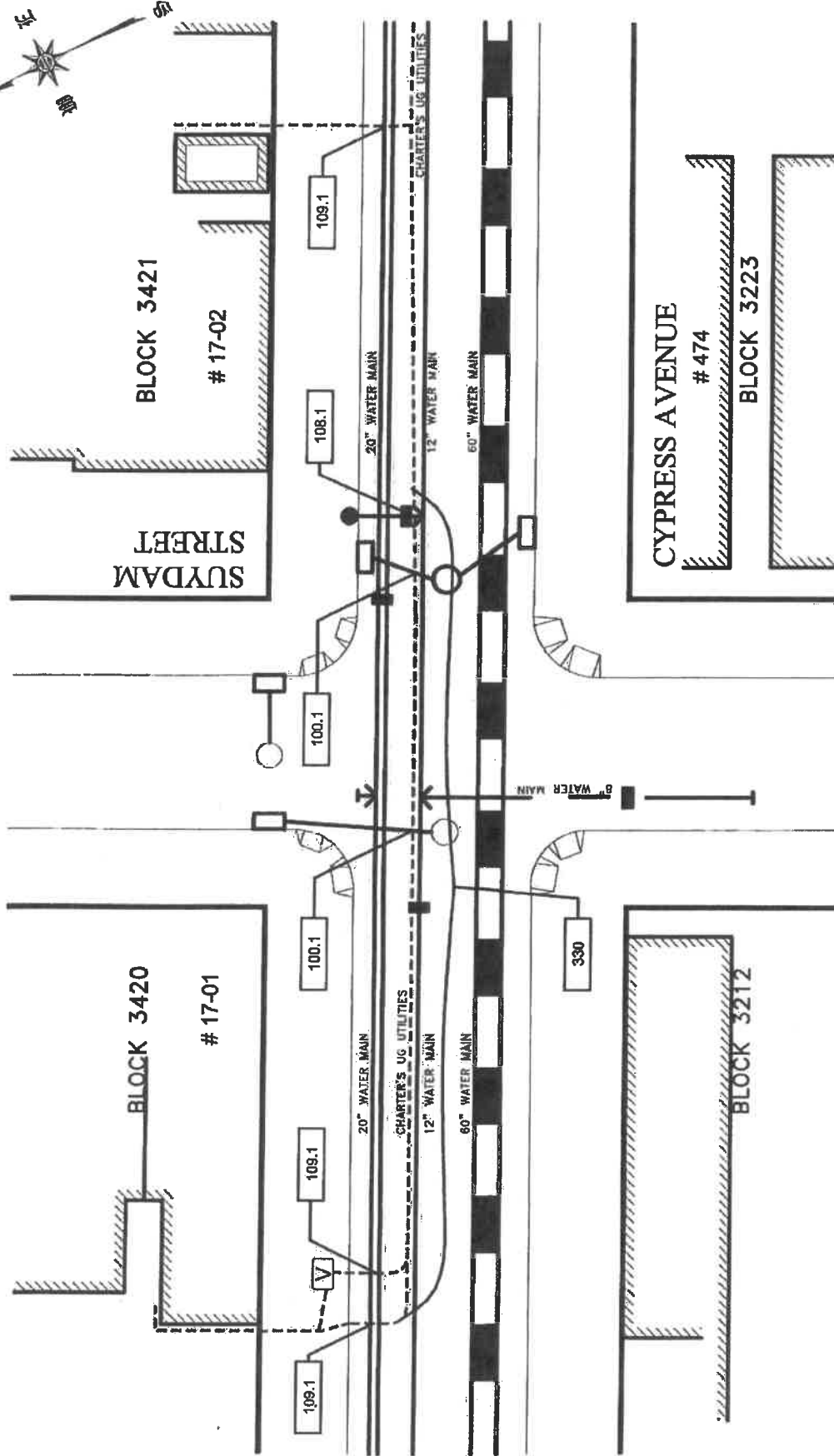


JB-117

# **SKETCHES**

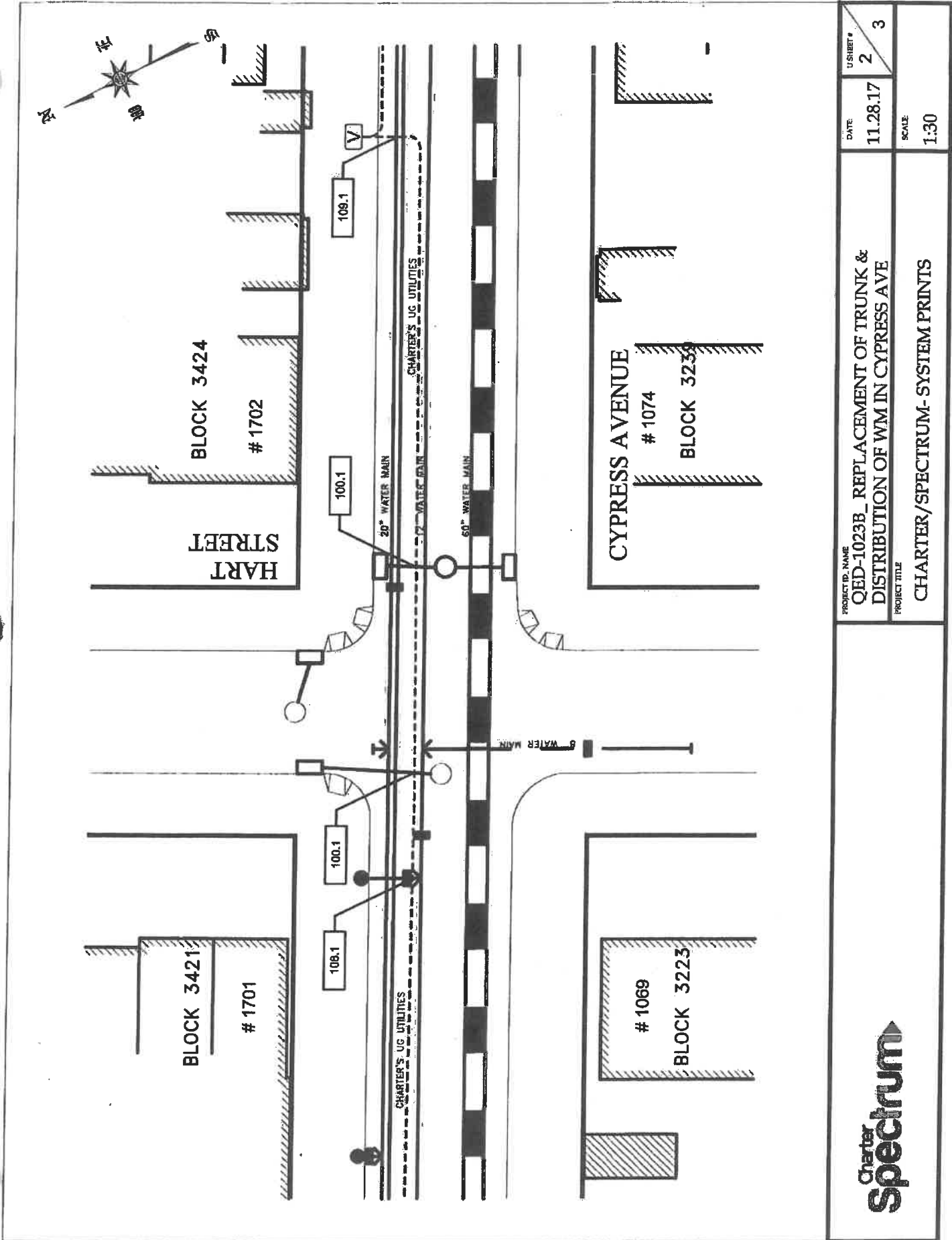
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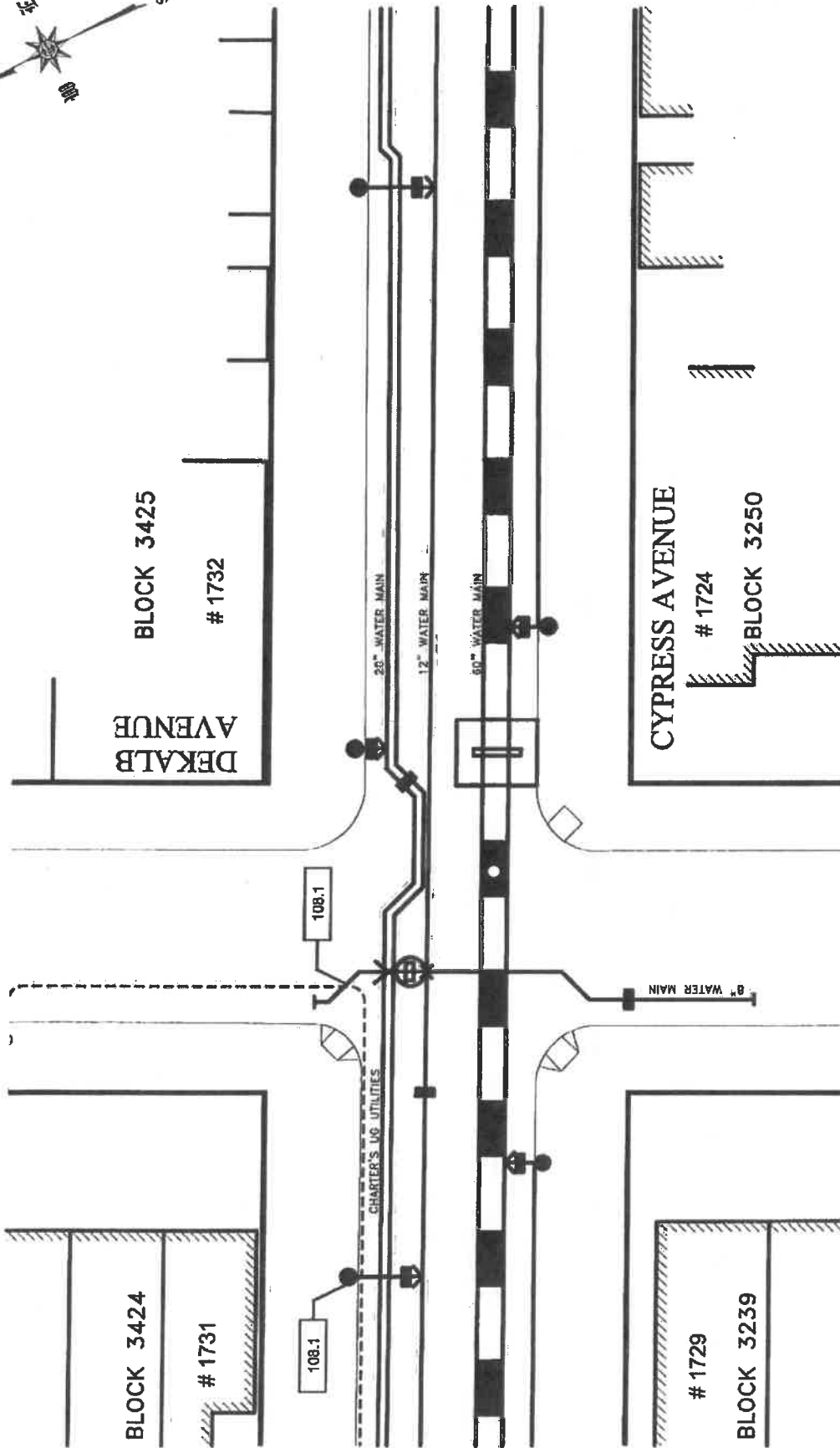
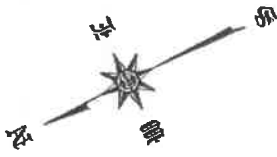
PROJECT ID: NAME <b>QED-1023B_ REPLACEMENT OF TRUNK &amp; DISTRIBUTION OF WM IN CYPRESS AVE</b>	DATE <b>11.28.17</b>	SHEET # <b>1</b>	OF SHEETS <b>3</b>
	PROJECT TITLE <b>CHARTER/SPECTRUM- SYSTEM PRINTS</b>		
SCALE <b>1:30</b>			





PROJECT ID. NAME	QED-1023B_ REPLACEMENT OF TRUNK & DISTRIBUTION OF WM IN CYPRESS AVE
PROJECT TITLE	CHARTER/SPECTRUM- SYSTEM PRINTS
DATE	11.28.17
U.SHEET #	2
SCALE	1:30
	3





PROJECT ID. NAME	QED-1023B_REPLACEMENT OF TRUNK & DISTRIBUTION OF WM IN CYPRESS AVE	DATE	11.28.17	USHEET #	3
PROJECT TITLE	CHARTER/SPECTRUM-SYSTEM PRINTS	SCALE	1:30		



**END OF JB-PAGES**

THE JB-PAGES CONSIST OF ONE HUNDRED AND TWENTY TWO (122)  
PAGES AND  
TWENTY FIVE (25) SHEETS OF PRIVATE UTILITY DRAWINGS ARE  
ATTACHED TO THE CONTRACT PLANS

**NO TEXT ON THIS PAGE**



**Department of  
Design and  
Construction**

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**INFRASTRUCTURE DIVISION  
BUREAU OF DESIGN**

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**VOLUME 3 OF 3**

PROJECT ID: QED1023B

REPLACEMENT OF TRUNK AND DISTRIBUTION WATER MAIN IN CYPRESS AVENUE BETWEEN  
WILLOUGHBY AVENUE AND HIMROD STREET, ETC.

INCLUDING SEWER, STREET LIGHTING, TRAFFIC SIGNAL AND PRIVATE UTILITIES WORK .

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

---

*Contractor*

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Dated \_\_\_\_\_, 20\_\_

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