



**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

LAW

VOLUME 1 OF 3

BID BOOKLET

FOR FURNISHING ALL LABOR AND MATERIALS NECESSARY AND
REQUIRED FOR:

PROJECT ID: HWPLZ011K

RECONSTRUCTION OF ZION PLAZA

**INCLUDING CURB AND SIDEWALK RECONSTRUCTION, STREET
LIGHTING, TRAFFIC SIGNALS, AND BIOSWALE WORK**

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

FOR THE DEPARTMENT OF TRANSPORTATION
PREPARED BY

PARSONS

JANUARY 14, 2016



7-016

Bid Tab – REVISED*

Description RECONSTRUCTION OF ZION PLAZA - BOROUGH OF BROOKLYN

Bid Date 11/02/2016 **FMS ID** HWPLZ011K

Estimated Cost \$2,526,665.00 **Client Agency** DOT

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

Time Allowed 545 CCD **FEDERAL FUNDED:** NO

Addendum 1 **Contract Manager** Nilofer Barkatullah

PIN 8502016HW0050C **Project Manager** Patel, Ashishkumar

Selective Bidding Yes No **E-PIN** 85016B0128

Bid Rank	Vendor	Bid Amount	Security Type
1	C.A.C. INDUSTRIES, INC.	\$3,765,387.54*	Bond
2	JR CRUZ CORP.	\$3,854,458.00	Bond
3	PERFETTO CONTRACTING CO. INC.	\$4,344,000.00	Bond

Recorder: Brenda Barreiro Ext. 1041

Approver:



Justin Walter
Chief Administrative Officer
Administration

December 15, 2017

CERTIFIED MAIL - RETURN RECEIPT REQUEST

JR CRUZ CORP
675 LINE RD
ABERDEEN, NJ 07747

RE: FMS ID: HWPLZ011K
E-PIN: 85016B0128001
DDC PIN: 8502016HW0050C
RECONSTRUCTION OF ZION PLAZA-
BOROUGH OF BROOKLYN
NOTICE OF AWARD

Dear Contractor:

You are hereby awarded the above referenced contract based upon your bid in the amount of \$3,854,458.00 submitted at the bid opening on November 02, 2016. Within ten (10) days of your receipt of this notice of award, you are required to take the actions set forth in Paragraphs (1) through (3) below. For your convenience, attached please find a copy of Schedule A of the General Conditions to the Contract, which sets forth the types and amounts of insurance coverage required for this contract.

- (1) Execute two copies of the Agreement in the Contracts Unit, 30-30 Thomson Avenue, 1st Floor, Long Island City, New York (IDCNY Building). A Commissioner of Deeds will be available to witness and notarize your signature. The Agreement must be signed by an officer of the corporation or a partner of the firm.
- (2) Submit to the Contracts Unit 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,



Michael Shipman
Director of Contracts

Notices to Bidders

Pre-Bid Questions (PBQs)

Please be advised that PBQs should be submitted to the Agency Contact Person at least five (5) business days (by 5:00 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.

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.

Notices to Bidders

Compliance with HireNYC and Reporting Requirements

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

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 to learn more about the loan or contact constructionloan@sbs.nyc.gov / (212) 513-6444 to obtain details and to determine preliminary eligibility.

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

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

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: HWPLZ011K

RECONSTRUCTION OF ZION PLAZA

**INCLUDING CURB AND SIDEWALK RECONSTRUCTION, STREET LIGHTING,
TRAFFIC SIGNALS, AND BIOSWALE WORK**

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

(NO TEXT ON THIS PAGE)

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

BID BOOKLET

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

SPECIAL NOTICE TO BIDDERS

BID SUBMISSION REQUIREMENTS

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

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

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

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

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

NOTES:

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

SPECIAL NOTICE TO BIDDERS

SPECIAL EXPERIENCE REQUIREMENTS (Revised 03/2014)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

- OTHER: Monument Masonry Cleaning and Monument Masonry Restoration Work:** The entity or entities that will perform this work must have a minimum experience of five (5) consecutive years and have successfully completed within those five (5) years at least five (5) projects on historic buildings involving similar type and scope to the Work required.

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

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

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

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

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

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

Qualification Form

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

Name of Contractor: JRCRUZ Corp.

Name of Project: HD153C Edgemere Urban Renewal Area Phase 1

Location of Project: Far Rockaway, Queens

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

Name: NYC DDC Mehraban Ahouraie

Title: Engineer in Charge Phone Number: 718-391-1953

Brief description of the Project completed or the Project in progress: Construction of sanitary and storm sewers, water mains, road restoration, monument masonry restoration street lightning and final pavement restoration.

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

Amount of Contract, Subcontract or Sub-subcontract: \$24,350,628.00

Start Date and Completion Date: April 2009 / September 2016

Name of Contractor: _____

Name of Project: _____

Location of Project: _____

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

Name: _____

Title: _____ Phone Number: _____

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

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

Amount of Contract, Subcontract or Sub-subcontract: _____

Start Date and Completion Date: _____

ATTACHMENT 1 - BID INFORMATION

PROJECT ID: HWPLZ011K

PIN: 8502016HW0050C

Description and Location of Work:

RECONSTRUCTION OF ZION PLAZA

**INCLUDING CURB AND SIDEWALK RECONSTRUCTION, STREET LIGHTING,
TRAFFIC SIGNALS, AND BIOSWALE WORK**

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

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

Submission of Bids To: 30-30 Thomson Avenue
First Floor Bid Procurement Room
Long Island City, New York 11101
Before 11:00 A.M. on **NOVEMBER 2, 2016**

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

Time and Date: 11:00 A.M. on **NOVEMBER 2, 2016**

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 30% of the Contract Price.

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

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LIST OF CONTRACT DRAWINGS

<u>SHEET NO.</u>	<u>DRAWING NO.</u>	<u>DRAWING TITLE</u>
1	CV1	TITLE
2	TC1	TABLE OF CONTENTS AND LIST OF STANDARD DRAWINGS
3	L1	LEGEND AND ABBREVIATION
4	G1	GENERAL NOTES (1 OF 2)
5	G2	GENERAL NOTES (2 OF 2)
6	S1	SURVEY BASE PLAN
7	S2	SURVEY CONTROL PLAN
8	B1	RECORD OF BORINGS
9	DP1	DEMOLITION PLAN
10	D1	MISCELLANEOUS DETAILS (1 OF 2)
11	D2	MISCELLANEOUS DETAILS (2 OF 2)
12	F1	DRINKING FOUNTAIN WITH BOTTLE FILLER DETAILS PLUMBING DETAILS RPZ AND WATER METER DETAILS
13	PD1	DETAILS
14	TP1	TOPOGRAPHICAL PLAN
15	C1	HIGHWAY CONSTRUCTION PLAN
16	GP1	GRADING PLAN
17	U1	UTILITY PLAN
18	PM1	PAVEMENT MARKING PLAN
19	SL1	STREET LIGHTING PLAN
20	E1	ELECTRICAL DETAILS
21	E2	ELECTRICAL DETAILS
22	TM1	TREE MITIGATION PLAN
23	LP1	LANDSCAPE LAYOUT PLAN
24	LP2	LANDSCAPE PLANTING PLAN
25	LP3	LANDSCAPE MATERIAL PLAN
26	LD1	LANDSCAPE BLEACHER DETAIL
27	LD2	LANDSCAPE PLANTING DETAILS (1 OF 2)
28	LD3	LANDSCAPE PLANTING DETAILS (2 OF 2)
29	LN1	PLANTING NOTES
30	MR1	MONUMENT RESTORATION DETAIL
31	WF1	WAYFINDING DETAILS (1 OF 2)
32	WF2	WAYFINDING DETAILS (2 OF 2)
33	MT1	MAINTENANCE AND PROTECTION OF TRAFFIC PLAN – NOTES (1 OF 2)
34	MT2	MAINTENANCE AND PROTECTION OF TRAFFIC PLAN – NOTES (2 OF 2)
35	MT3	MAINTENANCE AND PROTECTION OF TRAFFIC PLAN – SIGNS AND LEGEND
36	MT4	MAINTENANCE AND PROTECTION OF TRAFFIC

37	MT5	PLAN – STAGE 1 MAINTENANCE AND PROTECTION OF TRAFFIC
38	MT6	PLAN – STAGE 2 MAINTENANCE AND PROTECTION OF TRAFFIC
39	MT7	PLAN – STAGE 3 MAINTENANCE AND PROTECTION OF TRAFFIC
40	MT8	PLAN – STAGE 4 MAINTENANCE AND PROTECTION OF TRAFFIC
		PLAN – STAGE 5

BID SCHEDULE
NOTICE TO BIDDERS

Items listed in this Bid Schedule which have one (1) digit followed by a decimal (e.g. 4.02 CB) shall comply with the requirements of the corresponding numerical Sections of the NYCDOT Standard Highway Specifications as amended by I-Pages, herein Volume 3 of 3.

Items listed in this Bid Schedule which have two (2) digits beginning with the number "5" or "6" or "7" followed by a decimal (e.g. 52.11D12, 60.12D08, 70.81CB) shall comply with the requirements of the New York City Department of Environmental Protection (NYCDEP) Standard Sewer and Water Main Specifications, dated July 1, 2014, as amended by SW - Pages, herein Volume 3 of 3.

Item number "HW-914" in this Bid Schedule shall comply with the requirements of the Section "HW-914" incorporated in I-Pages, herein Volume 3 of 3.

Item listed in this Bid Schedule with the prefix "PK-" (e.g. PK-12D) are modified version of NYCDPR Items and shall comply with the requirements of the corresponding numerical Section incorporated in I-Pages, herein Volume 3 of 3.

Items listed in this Bid Schedule beginning with the prefix "ROWB-" (e.g. ROWB-4), shall comply with the requirements of the corresponding alphanumeric Sections incorporated in I-PAGES, herein Volume 3 of 3.

Items listed in this Bid Schedule beginning with the letters "E", (e.g. E 260519 D) shall comply with the requirements of the corresponding alphanumeric Sections incorporated in EL-Pages, herein Volume 3 of 3.

Items listed in this Bid Schedule beginning with the prefix "SL-" (e.g. SL-21.09.09) are Street Lighting Items, less the prefix, which shall be done in accordance with the requirements of Sub-Section 1.06.23.(D) and Section 1.06.49 in the NYCDOT Standard Highway Specifications.

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BID SCHEDULE

- NOTE:** (1) The Agency may reject a bid if it contains unbalanced bid prices. An unbalanced bid is considered to be one containing lump sum or unit items which do not reflect reasonable actual costs plus a reasonable proportionate share of the Bidder's anticipated profit, overhead costs, and other indirect costs, anticipated for the performance of the items in question.
- (2) The following bid prices on Unit Price Contracts are to be paid for the actual quantities of the Item numbers in the completed work or structure, and they cover the cost of all work, labor, material, tools, plant and appliances of every description necessary to complete the entire work, as specified, and the removal of all debris, temporary work and appliances.
- (3) PLEASE BE SURE A LEGIBLE BID IS ENTERED, IN INK, FOR EACH ITEM.
Alterations must be initialed in ink by the bidder.
- (4) The Extended Amount entered in Column 6 shall be the product of the Estimated Quantity in Column 3 times the Unit Price Bid in Column 5.
- (5) Prospective bidders must examine the Bid Schedule carefully and, before bidding, must advise the Commissioner, in writing, if any pages are missing, and must request that such missing pages be furnished them. The pages of this Bid Schedule are numbered consecutively, as follows:
B - 3 Through B - 30

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.

9/23/2016 12:00 AM

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

PROJECT ID: HWPLZ011K
 CONTRACT PIN: 8502016HW0050C

BID SCHEDULE FORM

COL 1 SEQ. NO.	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES)		COL 6 EXTENDED AMOUNT (IN FIGURES)	
				DOLLARS	CTS	DOLLARS	CTS
001	4.02 AF-R ASPHALTIC CONCRETE WEARING COURSE, 2" THICK	250.00	S.Y.	100		25,000	
002	4.02 CB ASPHALTIC CONCRETE MIXTURE	120.00	TONS	150		18,000	
003	4.04 H CONCRETE BASE FOR PAVEMENT, VARIABLE THICKNESS FOR TRENCH RESTORATION, (HIGH-EARLY STRENGTH)	32.00	C.Y.	300		9,600	
004	4.06 CONCRETE IN STRUCTURES, CLASS A-40	55.00	C.Y.	4,000 2,500 ECW		220,000 220,000	
005	4.08 ABM CONCRETE CURB, MOUNTABLE (18" DEEP)	50.00	L.F.	50		2,500	
006	4.09 AD STRAIGHT STEEL FACED CONCRETE CURB (18" DEEP)	730.00	L.F.	80		58,400	

9/23/2016 12:00 AM

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

PROJECT ID: HWPLZ011K
 CONTRACT PIN: 8502016HW0050C

BID SCHEDULE FORM

COL 1 SEQ. NO	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES)		COL 6 EXTENDED AMOUNT (IN FIGURES)	
				DOLLARS	CTS	DOLLARS	CTS
007	4.09 CD CORNER STEEL FACED CONCRETE CURB (18" DEEP)	100.00	L.F.	135		13,500	
008	4.11 CA FILL, PLACE MEASUREMENT	30.00	C.Y.	50		1,500	
009	4.11 CC SELECT GRANULAR FILL, PLACE MEASUREMENT	10.00	C.Y.	40		400	
010	4.13 AAS 4" CONCRETE SIDEWALK (UNPIGMENTED)	14,300.00	S.F.	9		128,700	
011	4.13 BAS 7" CONCRETE SIDEWALK (UNPIGMENTED)	1,175.00	S.F.	10		11,750	
012	4.13 DE EMBEDDED PREFORMED DETECTABLE WARNING UNITS	110.00	S.F.	35		3,850	

BID SCHEDULE FORM

COL 1	COL 2	COL 3	COL 4	COL 5		COL 6	
SEQ. NO	ITEM NUMBER and DESCRIPTION	ENGINEER'S ESTIMATE OF QUANTITY	UNIT	UNIT PRICE (IN FIGURES)		EXTENDED AMOUNT (IN FIGURES)	
				DOLLARS	CTS.	DOLLARS	CTS.
013	4.14 STEEL REINFORCEMENT BARS	2,800.00	LBS.	1	75	4,900	
014	4.15 TOPSOIL	200.00	C.Y.	75		15,000	
015	4.15 SS STRUCTURAL SOIL FOUNDATION MATERIAL	200.00	C.Y.	250		50,000	
016	4.16 AA TREES REMOVED (4" TO UNDER 12" CALIPER)	5.00	EACH	150		750	
017	4.16 AB TREES REMOVED (12" TO UNDER 18" CALIPER)	1.00	EACH	175		175	
018	4.16 AC TREES REMOVED (18" TO UNDER 24" CALIPER)	1.00	EACH	250		250	

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BID SCHEDULE FORM

COL. 1 SEQ. NO.	COL. 2 ITEM NUMBER and DESCRIPTION	COL. 3 ENGINEER'S ESTIMATE OF QUANTITY	COL. 4 UNIT	COL. 5 UNIT PRICE (IN FIGURES)		COL. 6 EXTENDED AMOUNT (IN FIGURES)	
				DOLLARS	CTS.	DOLLARS	CTS.
019	4.16 ADE TREES REMOVED (24" TO UNDER 48" CALIPER)	1.00	EACH	400		400	
020	4.16 CA TREES PLANTED, 3" TO 3-1/2" CALIPER, ALL TYPES	7.00	EACH	1,000		7,000	
021	4.16 CA510 TREES PLANTED, 3" TO 3-1/2" CALIPER, ALL TYPES, IN 5' X 10' TREE PITS	10.00	EACH	1,250		12,500	
022	4.16 HC TREES PLANTED, 10' TO 12' HIGH, ALL TYPES	4.00	EACH	1,000		4,000	
023	4.16 HD TREES PLANTED, 12' TO 14' HIGH, ALL TYPES	1.00	EACH	1,500		1,500	
024	4.16 STUMP STUMP REMOVAL	2.00	UNITS	500		1000	

BID SCHEDULE FORM

COL 1 SEQ. NO	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES)		COL 6 EXTENDED AMOUNT (IN FIGURES)	
				DOLLARS	CTS	DOLLARS	CTS
025	4.17 AB SHRUBS PLANTED, 30" TO 36" HIGH, ALL TYPES	225.00	EACH	100		22,500	
026	4.17 LS GROUND COVER PLANTED, LIRIOPE SPICATA, 1 QT.	180.00	EACH	15		2,700	
027	4.17 PG1G PERENNIALS OR GROUNDCOVERS, PLANTED, 1 GALLON, ALL TYPES	175.00	EACH	20		3,500	
028	4.18 B MAINTENANCE TREE PRUNING (12" TO UNDER 18" CAL.)	2.00	EACH	125		250	
029	4.21 TREE CONSULTANT	990.00	P/HR	60		59,400	
030	51.11P004 STANDARD 4'-0" DIAMETER PRECAST MANHOLE	1.00	EACH	25,000		25,000	

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BID SCHEDULE FORM

COL 1	COL 2	COL 3	COL 4	COL 5		COL 6	
SEQ. NO.	ITEM NUMBER and DESCRIPTION	ENGINEER'S ESTIMATE OF QUANTITY	UNIT	UNIT PRICE (IN FIGURES)		EXTENDED AMOUNT (IN FIGURES)	
				DOLLARS	CTS	DOLLARS	CTS
031	51.23RF REPLACEMENT OF EXISTING MANHOLE FRAME AND COVER	2.00	EACH	1500		3,000	
032	51.41S001 STANDARD CATCH BASIN, TYPE 1	2.00	EACH	20,000		40,000	
033	51.41S003 STANDARD CATCH BASIN, TYPE 3	2.00	EACH	25,000		50,000	
034	52.11D12 12" DUCTILE IRON PIPE BASIN CONNECTION	115.00	L.F.	300		34,500	
035	55.11AB ABANDONING BASINS AND INLETS	1.00	EACH	1,000		1,000	
036	6.02 AAN UNCLASSIFIED EXCAVATION	800.00	C.Y.	100		80,000	

BID SCHEDULE FORM

COL. 1 SEQ. NO	COL. 2 ITEM NUMBER and DESCRIPTION	COL. 3 ENGINEER'S ESTIMATE OF QUANTITY	COL. 4 UNIT	COL. 5 UNIT PRICE (IN FIGURES)		COL. 6 EXTENDED AMOUNT (IN FIGURES)	
				DOLLARS	CTS	DOLLARS	CTS
037	6.03 AA STRIPPING PAVEMENT SURFACE (ASPHALTIC CONCRETE)	110.00	S.Y.	20		2,200	
038	6.09 CONCRETE HEADER (6" WIDE X 15" DEEP)	660.00	L.F.	50		33,000	
039	6.18 DA26 DECORATIVE STEEL PICKET FENCE, 2'-6" HEIGHT	725.00	L.F.	600		435,000	
040	6.23 XBE FURNISH AND INSTALL 2" GALVANIZED STEEL CONDUIT (WITH PAVEMENT EXCAVATION)	25.00	L.F.	125		3,125	
041	6.25 RS TEMPORARY SIGNS	130.00	S.F.	9	25	1202	50
042	6.27 DBH DEMOLITION, REMOVAL AND DISPOSAL OF BENCHES	17.00	EACH	120		2040	

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COL 1	COL 2	COL 3	COL 4	COL 5		COL 6	
SEQ. NO.	ITEM NUMBER and DESCRIPTION	ENGINEER'S ESTIMATE OF QUANTITY	UNIT	UNIT PRICE (IN FIGURES)		EXTENDED AMOUNT (IN FIGURES)	
				DOLLARS	CTS	DOLLARS	CTS
043	6.28 AA LIGHTED TIMBER BARRICADES	220.00	L.F.	15		3,300	
044	6.40 B ENGINEER'S FIELD OFFICE (TYPE B)	24.00	MONTH	12,500		300,000	
045	6.43 PHOTOGRAPHS	100.00	SETS	20		2,000	
046	6.44 THERMOPLASTIC REFLECTORIZED PAVEMENT MARKINGS (4" WIDE)	5,000.00	L.F.	1	25	6250	
047	6.50 CLEANING OF DRAINAGE STRUCTURES	4.00	EACH	1,500		6,000	
048	6.52 CG CROSSING GUARD	280.00	P/HR	25		7,000	

BID SCHEDULE FORM

COL 1 SEQ. NO.	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES)		COL 6 EXTENDED AMOUNT (IN FIGURES)	
				DOLLARS	CTS	DOLLARS	CTS
049	6.55 SAWCUTTING EXISTING PAVEMENT	1,440.00	L.F.	2	80	3,600	
050	6.67 SUBBASE COURSE, SELECT GRANULAR MATERIAL	15.00	C.Y.	200		3,000	
051	6.68 PLASTIC FILTER FABRIC	15.00	S.Y.	2		30	
052	6.79 AG 4" DUCTILE IRON PIPE CONNECTION	60.00	L.F.	175		10,500	
053	6.82 A REMOVING EXISTING TRAFFIC AND STREET NAME SIGNS	100.00	S.F.	15		1,500	
054	6.82 B REMOVING EXISTING TRAFFIC AND STREET NAME SIGN POSTS	120.00	L.F.	10		1,200	

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COL 1 SEQ. NO	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES)		COL 6 EXTENDED AMOUNT (IN FIGURES)	
				DOLLARS	CTS	DOLLARS	CTS
055	6.83 AA FURNISHING NEW NON-REFLECTORIZED TRAFFIC SIGNS	15.00	S.F.	9		135	
056	6.83 AB FURNISHING NEW TRAFFIC SIGN POSTS	120.00	L.F.	11		1320	
057	6.83 AR FURNISHING NEW REFLECTORIZED TRAFFIC SIGNS	50.00	S.F.	9		450	
058	6.83 BA INSTALLING TRAFFIC SIGNS	55.00	S.F.	25		1375	
059	6.83 BB INSTALLING TRAFFIC SIGN POSTS	120.00	L.F.	20		2400	
060	6.86 AA FURNISHING NEW STREET NAME SIGNS	15.00	S.F.	18		270	

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COL 1 SEQ. NO.	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES)		COL 6 EXTENDED AMOUNT (IN FIGURES)	
				DOLLARS	CTS	DOLLARS	CTS
061	6.86 BA INSTALLING STREET NAME SIGNS	15.00	S.F.	35		525	
062	6.87 PLASTIC BARRELS	375.00	EACH	5		1875	
063	6.91 REFLECTIVE CRACKING MEMBRANE (18" WIDE)	480.00	L.F.	5		2400	
064	6.99 AUDIO AND VIDEO DOCUMENTATION SURVEY	1.00	L.S.	7500		7500	
065	60.11R606 FURNISHING AND DELIVERING 6-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 56)	15.00	L.F.	62.5		937.5	
066	60.11R608 FURNISHING AND DELIVERING 8-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 56)	130.00	L.F.	125		16,250	

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SEQ. NO.	ITEM NUMBER and DESCRIPTION	ENGINEER'S ESTIMATE OF QUANTITY	UNIT	UNIT PRICE (IN FIGURES)		EXTENDED AMOUNT (IN FIGURES)	
				DOLLARS	CTS	DOLLARS	CTS
067	60.12D06 LAYING 6-INCH DUCTILE IRON PIPE AND FITTINGS	20.00	L.F.	200		4,000	
068	60.12D08 LAYING 8-INCH DUCTILE IRON PIPE AND FITTINGS	150.00	L.F.	225		33,750	
069	60.13M0A24 FURNISHING AND DELIVERING DUCTILE IRON MECHANICAL JOINT 24-INCH DIAMETER AND SMALLER FITTINGS, INCLUDING WEDGE TYPE RETAINER GLANDS	1.00	TONS	7,800		7,800	
070	61.11DMM06 FURNISHING AND DELIVERING 6-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	1.00	EACH	1,200		1,200	
071	61.11DMM08 FURNISHING AND DELIVERING 8-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	1.00	EACH	2,000		2,000	

BID SCHEDULE FORM

COL 1	COL 2	COL 3	COL 4	COL 5		COL 6	
SEQ. NO	ITEM NUMBER and DESCRIPTION	ENGINEER'S ESTIMATE OF QUANTITY	UNIT	UNIT PRICE (IN FIGURES)		EXTENDED AMOUNT (IN FIGURES)	
				DOLLARS	CTS	DOLLARS	CTS
072	61.12DMM06 SETTING 6-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	1.00	EACH	750		750	
073	61.12DMM08 SETTING 8-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	1.00	EACH	1,000		1,000	
074	62.11SD FURNISHING AND DELIVERING HYDRANTS	1.00	EACH	6,000		6,000	
075	62.12SG SETTING HYDRANTS COMPLETE WITH WEDGE TYPE RETAINER GLANDS	1.00	EACH	6,000		6,000	
076	62.13RH REMOVING HYDRANTS	1.00	EACH	2,000		2,000	
077	62.14FS FURNISHING, DELIVERING AND INSTALLING HYDRANT FENDERS	2.00	EACH	500		1,000	

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				DOLLARS	CTS	DOLLARS	CTS
078	63.11VC FURNISHING AND DELIVERING VARIOUS CASTINGS	1.00	TONS	3,000		3,000	
079	65.11BR FURNISHING, DELIVERING AND INSTALLING BANDS, RODS, WASHERS, ETC., COMPLETE, FOR RESTRAINING JOINTS	115.00	LBS.	1		115	
080	65.21PS FURNISHING AND PLACING POLYETHYLENE SLEEVE Unit price bid shall not be less than: \$ 1.00	70.00	L.F.	1		70	
081	65.31FF FURNISHING, DELIVERING AND PLACING FILTER FABRIC Unit price bid shall not be less than: \$ 0.25	660.00	S.F.	1 0	25	165	
082	65.71SG FURNISHING, DELIVERING AND PLACING SCREENED GRAVEL OR SCREENED BROKEN STONE BEDDING	7.00	C.Y.	32		224	
083	7.13 B MAINTENANCE OF SITE Unit price bid shall not be less than: \$ 9,000.00	18.00	MONTH	9,000		162,000	

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				DOLLARS	CTS	DOLLARS	CTS
084	7.36 PEDESTRIAN STEEL BARRICADES	2,200.00	L.F.	3		6600	
085	7.88 AA RODENT INFESTATION SURVEY AND MONITORING Unit price bid shall not be less than: \$ 1,300.00	1.00	L.S.	1,300		1,300	
086	7.88 AB RODENT BAIT STATIONS Unit price bid shall not be less than: \$ 80.00	90.00	EACH	80		7200	
087	7.88 AC BAITING OF RODENT BAIT STATIONS Unit price bid shall not be less than: \$ 12.50	90.00	EACH	12	50	1125	
088	7.88 AD WATERBUG BAIT APPLICATIONS Unit price bid shall not be less than: \$ 85.00	55.00	BLOCK	85		4,675	
089	70.51EO EXCAVATION OF BOULDERS IN OPEN CUT Unit price bid shall not be less than: \$ 97.50	10.00	C.Y.	97	50	975	

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				DOLLARS	CTS	DOLLARS	CTS
090	70.61RE ROCK EXCAVATION	110.00	C.Y.	500		55,000	
091	70.71SB STONE BALLAST Unit price bid shall not be less than: \$ 17.50	100.00	C.Y.	32		3,200	
092	70.81CB CLEAN BACKFILL Unit price bid shall not be less than: \$ 17.50	100.00	C.Y.	17	50	1,750	
093	70.91SW12 FURNISHING AND PLACING SHEETING AND BRACING IN TRENCH FOR WATER MAIN PIPE 12-INCH IN DIAMETER AND LESS	740.00	S.F.	0	01	7.	40
094	73.11AB ADDITIONAL BRICK MASONRY Unit price bid shall not be less than: \$ 87.50	7.00	C.Y.	87	50	612	50
095	73.41AG ADDITIONAL SELECT GRANULAR BACKFILL Unit price bid shall not be less than: \$ 17.50	100.00	C.Y.	35		3500	

BID SCHEDULE FORM

COL 1	COL 2	COL 3	COL 4	COL 5		COL 6	
SEQ. NO.	ITEM NUMBER and DESCRIPTION	ENGINEER'S ESTIMATE OF QUANTITY	UNIT	UNIT PRICE (IN FIGURES)		EXTENDED AMOUNT (IN FIGURES)	
				DOLLARS	CTS	DOLLARS	CTS
096	8.02 A SPECIAL CARE EXCAVATION AND RESTORATION FOR SIDEWALK WORK	275.00	S.F.	12		3300	
097	8.02 B SPECIAL CARE EXCAVATION AND RESTORATION FOR CURB WORK	60.00	L.F.	15		900	
098	9.00 C EXPLORATORY TEST PITS	300.00	C.F.	100		30,000	
099	9.04 HW ALLOWANCE FOR ANTI-FREEZE ADDITIVE IN CONCRETE PRICE BID SHALL BE FOR THE FIXED SUM OF \$ 65,000.00	1.00	F.S.	65,000	00	\$65,000	00
100	9.97 MC MONUMENT MASONRY CLEANING	1.00	L.S.	200,000		200,000	

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COL 1	COL 2	COL 3	COL 4	COL 5		COL 6	
SEQ. NO	ITEM NUMBER and DESCRIPTION	ENGINEER'S ESTIMATE OF QUANTITY	UNIT	UNIT PRICE (IN FIGURES)		EXTENDED AMOUNT (IN FIGURES)	
				DOLLARS	CTS.	DOLLARS	CTS.
101	9.97 MR MONUMENT MASONRY RESTORATION	1.00	L.S.	400,000		400,000	
102	E 260519 B LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (NO. 2 AWG WIRE)	360.00	L.F.	8		2,880	
103	E 260519 D LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (NO. 6 AWG WIRE)	120.00	L.F.	6		720	
104	E 260519 G LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (NO. 10 AWG WIRE)	725.00	L.F.	4	50	3,262.	50
105	E 260533 AC METAL CONDUIT AND TUBING (2" GALVANIZED RIGID STEEL CONDUIT)	240.00	L.F.	45		10,800	
106	E 260533 BA LOCKABLE STAINLESS STEEL ENCLOSURE FOR UTILITY SERVICE AND DISTRIBUTION PANEL	1.00	EACH	15,000		15,000	

BID SCHEDULE FORM

COL 1	COL 2	COL 3	COL 4	COL 5		COL 6	
SEQ. NO	ITEM NUMBER and DESCRIPTION	ENGINEER'S ESTIMATE OF QUANTITY	UNIT	UNIT PRICE (IN FIGURES)		EXTENDED AMOUNT (IN FIGURES)	
				DOLLARS	CTS	DOLLARS	CTS
107	E 260533 BB FREESTANDING LOCKABLE EVENT BOX OUTLETS ENCLOSURE	1.00	EACH	2,500		2,500	
108	E 260533 CB FREESTANDING COMPANY SWITCH ENCLOSURE	2.00	EACH	18,500		37,000	
109	E 262416 A PANELBOARDS, 100 A 42 POLE WITH (42) IP-20A CB	1.00	EACH	12,000		12,000	
110	E 262713 B ELECTRICITY METERING, 200 A UTILITY METER	1.00	EACH	8,500		8,500	
111	E 262726 A GFCI RECEPTACLE (DUPLEX)	5.00	EACH	1,800		9,000	
112	E 262726 G EVENT BOX RECEPTACLES (20A)	4.00	EACH	1,600		6,400	

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				DOLLARS	CTS	DOLLARS	CTS
113	E 262816 A ENCLOSED SWITCH, FUSED, 200 A	4.00	EACH	1,500		6,000	
114	HW-914 ALLOWANCE FOR WAYFINDING TOTEMS PRICE BID SHALL BE FOR THE FIXED SUM OF \$ 12,000.00	1.00	F.S.	12,000	00	\$12,000	00
115	PK-12D WATER TAP, 2" DIAMETER	1.00	EACH	600		600	
116	PK-13D TYPE K COPPER TUBING, 1" DIAMETER	30.00	L.F.	50		1,500	
117	PK-13F TYPE K COPPER TUBING, 2" DIAMETER	175.00	L.F.	65		11,375	

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				DOLLARS	CTS	DOLLARS	CTS
118	PK-143 RPZ & WATER METER WITH REMOTE & STRUCTURE - 2" DIA.	1.00	EACH	175,000		175,000	
119	PK-159B CURB & PROPERTY LINE VALVES - 2" DIA.	1.00	SETS	1,850		1,850	
120	PK-166 PLUG VALVE - 1" DIA.	2.00	EACH	500		1,000	
121	PK-168A PLUG VALVE 1-1/4" DIA.	1.00	EACH	500		1,000 500	
122	PK-169 WBF BOTTLE FILLER W/ HI-LO DRINKING FOUNTAIN BASINS	1.00	EACH	35,000		35,000	
123	PK-17 CAST IRON VALVE BOX, 5-1/4" DIAMETER	5.00	EACH	300		1,500	

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				DOLLARS	CTS	DOLLARS	CTS
124	PK-184-1 GROUND HYDRANT - 1" DIAMETER	2.00	EACH	1,250		2,500	
125	PK-225 B ASPHALT BLOCK PAVEMENT ON ASPHALT CONCRETE BASE	375.00	S.Y.	300		112,500	
126	PK-225 C ASPHALT BLOCK PAVEMENT ON CONCRETE BASE	620.00	S.Y.	260		161,200	
127	PK-242R-A BENCH, TYPE 'A' WITH REINFORCED RECYCLED PLASTIC LUMBER SLATS	130.00	L.F.	300		39,000	
128	PK-243 CONCRETE CURB	20.00	C.Y.	1,100		22,000	
129	PK-257 METAL TRASH RECEPTACLE - DECORATIVE	4.00	EACH	1,250		5,000	

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				DOLLARS	CTS.	DOLLARS	CTS.
130	ROWB-04 CONSTRUCT 20' x 5' R.O.W. BIOSWALE TYPE 1C	2.00	EACH	25,000		50,000	
131	SL-20.01.01 FURNISH AND INSTALL FOUNDATION FOR TYPE "B" OR "B12" POST WITH INTERNAL FLANGE, AS PER DRAWING E-3884	5.00	EACH	3,250		16,250	
132	SL-20.02.02 FURNISH AND INSTALL STANDARD TYPE ANCHOR BOLT FOUNDATION, AS PER DRAWING E-3788	2.00	EACH	1,900		3,800	
133	SL-21.01.08 FURNISH AND INSTALL TYPE "B12" LAMPPOST WITH INTERNAL FLANGE	5.00	EACH	6,500		32,500	
134	SL-21.03.02 FURNISH AND INSTALL TYPE 2S, 4S, 6S, 8S OR 12S LAMPPOST WITH TRANSFORMER BASE	2.00	EACH	3,600		7,200	
135	SL-21.09.08 REMOVE ALL STREET LIGHTING EQUIPMENT FROM TYPE "M-2" TRAFFIC POST (ARM(S), PHOTOELECTRIC CONTROLLER, LUMINAIRE (S), SHAFT EXTENSION, WIRING, ETC.)	2.00	EACH	525		1,050	

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PROJECT ID: HWPLZ011K
 CONTRACT PIN: 8502016HW0050C

BID SCHEDULE FORM

COL 1 SEQ. NO.	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES)		COL 6 EXTENDED AMOUNT (IN FIGURES)	
				DOLLARS	CTS	DOLLARS	CTS
136	SL-21.09.09 REMOVE F.S. SPUN ALUMINUM, #10, ETC LAMPPOST, WITH ARMS(S), LUMINAIRE(S), ETC., WITH ALL ATTACHMENTS, IF ANY. REMOVE PORTION OF FOUNDATION. RESTORE TO SURROUNDING CONDITIONS.	2.00	EACH	800		1,600	
137	SL-22.15.03 FURNISH AND INSTALL 75 WATT LED "RIVERSIDE PARK" TYPE LUMINAIRE	5.00	EACH	2,250		11,250	
138	SL-22.16.05 FURNISH AND INSTALL ROADWAY TYPE LED FIXTURE AS PER SPECIFICATION 466 WITH PEC RECEPTACLE AND PEC	4.00	EACH	900		3,600	
139	SL-26.01.04 FURNISH AND INSTALL LONG LIFE PHOTO ELECTRIC CONTROL WITH SURGE PROTECTION FOR LED LIGHT	4.00	EACH	125		500	
140	SL-27.01.01 FURNISH AND INSTALL ALUMINUM TAG ON A LAMPPOST, AS PER DRAWING D-2861	5.00	EACH	200		1,000	

BID SCHEDULE FORM

COL. 1 SEQ. NO.	COL. 2 ITEM NUMBER and DESCRIPTION	COL. 3 ENGINEER'S ESTIMATE OF QUANTITY	COL. 4 UNIT	COL. 5 UNIT PRICE (IN FIGURES)		COL. 6 EXTENDED AMOUNT (IN FIGURES)	
				DOLLARS	CTS.	DOLLARS	CTS.
141	SL-28.01.01 FURNISH AND INSTALL COPPER WELD GROUND ROD AND CLAMP, AS PER DRAWING H-5019	1.00	EACH	350		350	
142	SL-29.01.01 FURNISH, INSTALL, MAINTAIN AND REMOVE EQUIPMENT FOR TEMPORARY LIGHTING (PYLON), AS PER DRAWINGS F-5005 AND F- 5005A	2.00	EACH	1,800		3,600	
143	SL-33.01.02 FURNISH AND INSTALL NO. 6 AWG XLP COPPER CABLE OR EQUAL IN CONDUIT	1,100.00	L.F.	6		6,600	
144	SL-33.03.01 FURNISH AND INSTALL #6 BARE COPPER CONDUCTOR IN CONDUIT OR OVERHEAD.	575.00	L.F.	6		3,450	
145	SL-35.01.03 FURNISH AND INSTALL 1-1/2" HOT DIPPED GALVANIZED STEEL CONDUIT IN PAVED AREA.	375.00	L.F.	85		31,875	
146	SL-35.01.04 FURNISH AND INSTALL 2" HOT DIPPED GALVANIZED STEEL CONDUIT IN PAVED AREA	175.00	L.F.	125		21,875	

9/23/2016 12:00 AM

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

PROJECT ID: HWPLZ011K
 CONTRACT PIN: 8502016HW0050C

BID SCHEDULE FORM

COL 1 SEQ. NO	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES)		COL 6 EXTENDED AMOUNT (IN FIGURES)	
				DOLLARS	CTS	DOLLARS	CTS
147	SL-35.03.03 FURNISH AND INSTALL 1-1/2" HOT DIPPED GALVANIZED STEEL CONDUIT IN UNPAVED AREA	45.00	L.F.	165		7,425	
148	SL-35.03.04 FURNISH AND INSTALL 2" HOT DIPPED GALVANIZED STEEL CONDUIT IN UNPAVED AREA	45.00	L.F.	165		7,425	
149	SL-37.05.09 FURNISH AND INSTALL TYPE 2418 ROADWAY CONCRETE BOX WITH CAST IRON FRAME AND COVER WITH TAMPER PROOF BOLTS AS PER DWG J-3179B.	3.00	EACH	4,500		13,500	

SUB-TOTAL: \$ 3,706,603.90

150	6.39 A MOBILIZATION BID PRICE OF MOBILIZATION SHALL NOT EXCEED 4% OF THE ABOVE SUB-TOTAL PRICE.	1.00	L.S.			147,854	10
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9/23/2016 12:00 AM

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

PROJECT ID: HWPLZ011K
CONTRACT PIN: 8502016HW0050C

BID SCHEDULE FORM

COL 1	COL 2	COL 3	COL 4	COL 5	COL 6
SEQ. NO.	ITEM NUMBER and DESCRIPTION	ENGINEER'S ESTIMATE OF QUANTITY	UNIT	UNIT PRICE (IN FIGURES) DOLLARS : CTS	EXTENDED AMOUNT (IN FIGURES) DOLLARS : CTS

TOTAL BID PRICE: \$ 3,854,458

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: HWPLZ011K

RECONSTRUCTION OF ZION PLAZA

**INCLUDING CURB AND SIDEWALK RECONSTRUCTION, STREET LIGHTING,
TRAFFIC SIGNALS AND BIOSWALE WORK**

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

Name of Bidder: JRCRUZ Corp.

Date of Bid Opening: November 2, 2016

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

Place of Business of Bidder: 675 Line Road, Aberdeen, NJ 07747

Bidder's Telephone Number: 732-290-0700 Fax Number: 732-290-8960

Bidder's E-Mail Address: engineering@jrcruz.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 New York

Name and Home Address of President: Evaristo Cruz, Jr.
74 Hickory Lane, Lincroft, NJ 07738

Name and Home Address of Secretary: Matthew J. Cruz
74 Hickory Lane, Lincroft, NJ 07738

Name and Home Address of Treasurer: Same as president

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.

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BID FORM

PROJECT ID. HWPLZ011K

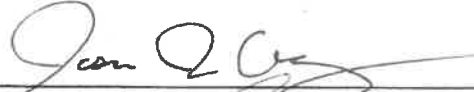
TOTAL BID PRICE: In the space provided below, the Bidder shall indicate its Total Bid Price in figures. Such Total Bid Price is set forth on the final page of the Bid Schedule.

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

\$ 3,854,450

BIDDER'S SIGNATURE AND AFFIDAVIT

Bidder: JRCRUZ Corp.

By: 
Jason R. Cruz, Vice President (Signature of Partner or corporate officer)

Attest:
(Corporate Seal)


Matthew J. Cruz Secretary of Corporate Bidder

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

BID FORM (TO BE NOTARIZED)

AFFIDAVIT WHERE BIDDER IS AN INDIVIDUAL

STATE OF NEW YORK, COUNTY OF _____ ss:

_____ being duly sworn says:

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

(Signature of the person who signed the Bid)

Subscribed and sworn to before me this
_____ day of _____, _____

Notary Public

AFFIDAVIT WHERE BIDDER IS A PARTNERSHIP

STATE OF NEW YORK, COUNTY OF _____ ss:

_____ being duly sworn says:

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

(Signature of Partner who signed the Bid)

Subscribed and sworn to before me this
_____ day of _____, _____

Notary Public

AFFIDAVIT WHERE BIDDER IS A CORPORATION

JERSEY

STATE OF NEW YORK, COUNTY OF MONMOUTH ss:

Jason R. Cruz

_____ being duly sworn says:

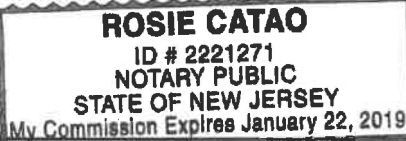
I am the Vice President of the above named corporation whose name is subscribed to and which executed the foregoing bid. I reside at 74 Hickory Lane, Lincroft, NJ 07738.

I have knowledge of the several matters therein stated, and they are in all respects true.

Jason R. Cruz
(Signature of Corporate Officer who signed the Bid)

Subscribed and sworn to before me this
2nd day of November, 2016

Jason R. Cruz
Notary Public



AFFIRMATION

PROJECT ID. HWPLZ011K

The undersigned bidder affirms and declares that said bidder is not in arrears to the City of New York upon debt, contract or taxes and is not a defaulter, as surety or otherwise, upon obligation to the City of New York, and has not been declared not responsible, or disqualified, by any agency of the City of New York, nor is there any proceeding pending relating to the responsibility or qualification of the bidder to receive public contracts except: NONE

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

Full Name of Bidder: JRCRUZ Corp.

Address: 675 Line Road

City Aberdeen

State New Jersey

Zip Code 07747

CHECK ONE BOX AND INCLUDE APPROPRIATE NUMBER:

A - Individual or Sole Proprietorship*
SOCIAL SECURITY NUMBER

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

C- Corporation
EMPLOYER IDENTIFICATION NUMBER

22-3373796

By: _____

Signature

Title: Jason R. Cruz, Vice 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, JRCruz Corp.
675 Line Road, Aberdeen, NJ 07747

hereinafter referred to as the "Principal", and Liberty Mutual Insurance Company
1200 MacArthur Blvd., Mahwah, NJ 07430

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 Bid Amount

(\$ _____), 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: HWPLZ011K, Reconstruction of Zion Plaza, Including Curb, Sidewalk Reconstruction, Street Lighting, Traffic Signals, and Bioswale Work, Borough of Brooklyn, NY

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

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

BID BOND 2

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

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

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

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

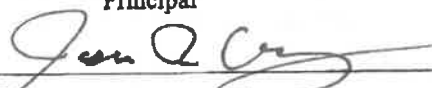
IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers the 2nd day of November, 2016.

(Seal)

JRCruz Corp. _____ (L.S.)

Principal

By:

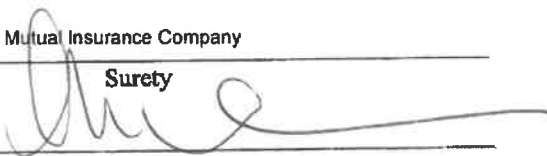

Jason R. Cruz, Vice President

(Seal)

Liberty Mutual Insurance Company _____

Surety

By:


Lisa Nosal, Atty-in-fact

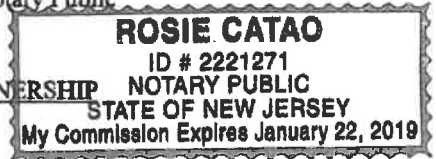
BID BOND 3

ACKNOWLEDGMENT OF PRINCIPAL, IF A CORPORATION

State of New Jersey County of Monmouth ss:
On this 2nd day of November, 2016, before me personally came
Jason R. Cruz to me known, who, being by me duly sworn, did depose and say
that he resides at 74 Hickory Lane, Lincroft, NJ 07738
that he is the Vice President of JRCRUZ Corp.
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.

[Handwritten Signature]

Notary Public



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

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

AFFIX ACKNOWLEDGMENTS AND JUSTIFICATION OF SURETIES

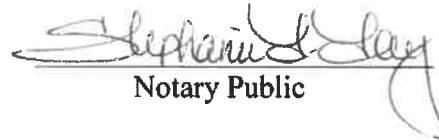
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ACKNOWLEDGEMENT OF SURETY

State of New Jersey]
 |-ss
County of Passaic]

On 11/02/2016, before me personally came Lisa Nosal to me known, who, being by me duly sworn, did depose and say that she is an attorney-in-fact of Liberty Mutual Insurance Company the corporation described in and which executed the within instrument; that she knows the corporate seal of said corporation, and that the seal affixed to the within instrument is such corporate seal, and that she signed the said instrument and affixed the said seal as Attorney-in-Fact by authority of the Board of Directors of said corporation and by authority of this office under the Standing Resolutions thereof.

My Commission expires:


Notary Public

STEPHANIE F. FOY
NOTARY PUBLIC
STATE OF NEW JERSEY
MY COMMISSION EXPIRES OCTOBER 27, 2018

THIS POWER OF ATTORNEY IS NOT VALID UNLESS IT IS PRINTED ON RED BACKGROUND.

This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

Certificate No. 7486609

American Fire and Casualty Company
The Ohio Casualty Insurance Company

Liberty Mutual Insurance Company
West American Insurance Company

POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS: That American Fire & Casualty Company and The Ohio Casualty Insurance Company are corporations duly organized under the laws of the State of New Hampshire, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Joseph W. Mallory; Lisa Nosal; Louis A. Vlahakes; Pamela J. Boyle; Robert E. Culnen

all of the city of Totowa, state of NJ each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons.

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 14th day of September, 2016.



American Fire and Casualty Company
The Ohio Casualty Insurance Company
Liberty Mutual Insurance Company
West American Insurance Company

By: David M. Carey
David M. Carey, Assistant Secretary

STATE OF PENNSYLVANIA ss
COUNTY OF MONTGOMERY

On this 14th day of September, 2016, before me personally appeared David M. Carey, who acknowledged himself to be the Assistant Secretary of American Fire and Casualty Company, Liberty Mutual Insurance Company, The Ohio Casualty Insurance Company, and West American Insurance Company, and that he, as such, being authorized so to do, execute 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 have hereunto subscribed my name and affixed my notarial seal at Plymouth Meeting, Pennsylvania, on the day and year first above written.



COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Teresa Pastella, Notary Public
Plymouth Twp., Montgomery County
My Commission Expires March 28, 2017
Member, Pennsylvania Association of Notaries

By: Teresa Pastella
Teresa Pastella, Notary Public

This Power of Attorney is made and executed pursuant to and by authority of the following By-laws and Authorizations of American Fire and Casualty Company, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company which resolutions are now in full force and effect reading as follows:

ARTICLE IV – OFFICERS – Section 12. Power of Attorney. Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and execution of any such instruments and to attach thereto the seal of the Corporation. When so executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

ARTICLE XIII – Execution of Contracts – SECTION 5. Surety Bonds and Undertakings. Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the president and attested by the secretary.

Certificate of Designation – The President of the Company, acting pursuant to the Bylaws of the Company, authorizes David M. Carey, Assistant Secretary to appoint such attorneys-in-fact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

Authorization – By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, Gregory W. Davenport, the undersigned, Assistant Secretary, of American Fire and Casualty Company, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, 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 2nd day of November, 20 16.



By: Gregory W. Davenport
Gregory W. Davenport, Assistant Secretary

Not valid for mortgage, note, loan, letter of credit, currency rate, interest rate or residual value guarantees.

To confirm the validity of this Power of Attorney call 1-610-832-8240 between 9:00 am and 3:00 pm EST on any business day.



LIBERTY MUTUAL INSURANCE COMPANY
FINANCIAL STATEMENT — DECEMBER 31, 2015

Assets		Liabilities	
Cash and Bank Deposits.....	\$753,038,641	Unearned Premiums.....	\$6,580,520,311
*Bonds — U.S Government.....	1,547,613,446	Reserve for Claims and Claims Expense.....	16,917,138,677
*Other Bonds.....	11,088,162,545	Funds Held Under Reinsurance Treaties.....	210,794,503
*Stocks.....	9,919,835,033	Reserve for Dividends to Policyholders.....	358,033
Real Estate.....	295,926,247	Additional Statutory Reserve.....	29,659,093
Agents' Balances or Uncollected Premiums.....	4,487,501,643	Reserve for Commissions, Taxes and	
Accrued Interest and Rents.....	120,872,424	Other Liabilities.....	2,789,478,276
Other Admitted Assets.....	<u>14,130,266,527</u>	Total.....	<u>\$26,527,948,893</u>
Total Admitted Assets.....	<u>\$42,343,216,506</u>	Special Surplus Funds.....	\$67,890,944
		Capital Stock.....	10,000,000
		Paid in Surplus.....	8,829,183,823
		Unassigned Surplus.....	6,908,192,846
		Surplus to Policyholders.....	<u>15,815,267,613</u>
		Total Liabilities and Surplus.....	<u>\$42,343,216,506</u>



* Bonds are stated at amortized or investment value; Stocks at Association Market Values.
The foregoing financial information is taken from Liberty Mutual Insurance Company's financial statement filed with the state of Massachusetts Department of Insurance.

I, TIM MIKOLAJEWSKI, Assistant Secretary of Liberty Mutual Insurance Company, do hereby certify that the foregoing is a true, and correct statement of the Assets and Liabilities of said Corporation, as of December 31, 2015, to the best of my knowledge and belief.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of said Corporation at Seattle, Washington, this 15th day of March, 2016.

T. Mikolajewski

Assistant Secretary

M/WBE PROGRAM

M/WBE UTILIZATION PLAN

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

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

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

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

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

NOTICE TO ALL PROSPECTIVE CONTRACTORS

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

ARTICLE I. M/WBE PROGRAM

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

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

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

PART A

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(b) To apply for a full or partial waiver of the **Participation Goals**, a bidder, proposer, or contractor, as applicable, must complete Part III (Page 5) of Schedule B and submit such request no later than seven (7) calendar days prior to the date and time the bids, proposals, or Task Orders are due, in writing to the Agency by email at 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 #: 22-3373796

APT E- 85016B0128
PIN #: _____

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

Part I to be completed by contracting agency

Contract Overview

APT E- Pin # 85016B0128 FMS Project ID#: HWPLZ011K
 Project Title/ Agency PIN # Reconstruction of Zion Plaza / 8502016HW0050C
 Bid/Proposal Response Date NOVEMBER 2, 2016
 Contracting Agency Department of Design and Construction
 Agency Address 30-30 Thomson Ave. City Long Island City State NY Zip Code 11101
 Contact Person Yamina Youb Title M/WBE Liaison & Compliance Analyst
 Telephone # (718) 391-1607 Email youbya@ddc.nyc.gov

Project Description (attach additional pages if necessary)

RECONSTRUCTION OF ZION PLAZA
INCLUDING CURB AND SIDEWALK RECONSTRUCTION, STREET LIGHTING,
TRAFFIC SIGNALS, AND BIOSWALE WORK
 Together With All Work Incidental Thereto
BOROUGH OF BROOKLYN
CITY OF NEW YORK

M/WBE Participation Goals for Services

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

Prime Contract Industry: Construction

Group	Percentage
<u>Unspecified</u>	<u>11%</u>
or	
<u>Black American</u>	<u>UNSPECIFIED</u>
<u>Hispanic American</u>	<u>UNSPECIFIED</u>
<u>Asian American</u>	<u>UNSPECIFIED</u>
<u>Women</u>	<u>UNSPECIFIED</u>
Total Participation Goals	11 % 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 #: 22-3373796

APT E-
PIN #: _____

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>22-3373796</u>	FMS Vendor ID #	<u>00002175332</u>
Business Name	<u>JRCRUZ Corp.</u>	Contact Person	<u>Peter Lauro</u>
Address	<u>675 Line Road, Aberdeen, NJ 07738</u>		
Telephone #	<u>732-290-0700</u>	Email	<u>plauro@jrcruz.com</u>

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

PRIME CONTRACTOR ADOPTING AGENCY M/WBE PARTICIPATION GOALS

<input checked="" type="checkbox"/> For Prime Contractors (including Qualified Joint Ventures and M/WBE firms) adopting Agency M/WBE Participation Goals. Calculate the total dollar value of your total bid that you agree will be awarded to M/WBE subcontractors for services and/or credited to an M/WBE prime contractor or Qualified Joint Venture. Please review the Notice to Prospective Contractors for more information on how to obtain credit for M/WBE participation.	Total Bid/Proposal Value	Agency Total Participation Goals (Line 1, Page 13)	Calculated M/WBE Participation Amount
	\$ <u>3,854,458</u>	X <u>11%</u>	= \$ <u>423,990</u> 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. 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.	Total Bid/Proposal Value	Adjusted Participation Goal (From Partial Waiver)	Calculated M/WBE Participation Amount
	\$	X	= \$ Line 3

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.

1. Trucking - 250,000 - MBE - DUR
2. _____
3. Electrical - 200,000 - WBE - END
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____

✓ Scopes of Subcontract Work

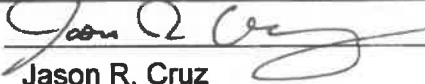
Tax ID #: 22-3373796

APT E-
PIN #: _____

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>November 2, 2016</u>
Print Name	<u>Jason R. Cruz</u>	Title	<u>Vice President</u>

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: JRCRUZ Corp.

Project ID Number: HWPLZ011K

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).

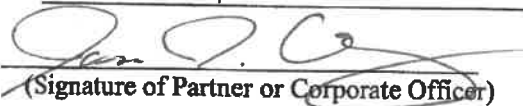
- Where the bidder participates in any such Apprenticeship Program(s) through its membership in an employer organization(s) that directly sponsors such program(s) or where the employer association(s) participates in such program(s) through collective bargaining, the bidder shall provide the following:
 - 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: HWPLZ011K

- **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.

We are members of the General Contractors Association of New York(GCA). Please refer to attached letter.

Bidder: JRCRUZ Corp.
By:  Title: Jason R. Cruz, Vice President
(Signature of Partner or Corporate Officer)

Date: November 2, 2016



THE GENERAL CONTRACTORS ASSOCIATION OF NEW YORK, INC.

Denise M. Richardson
Executive Director

January 12, 2017

JR CRUZ Corp.
Attn: Mr. Evarett Cruz, Jr.
675 Line Road
Aberdeen, NJ 07747

Dear Mr. Cruz:

JR CRUZ Corp. is a member in good standing of the General Contractors Association of New York ("GCA"). Through your membership in the GCA, you have authorized the GCA to enter into collective bargaining agreements on your behalf.

As such, your firm is signatory to the collective bargaining agreements and participates in, upholds and is subject to all provisions of those agreements, including the union(s) established and approved apprenticeship programs.

The General Contractors Association has collective bargaining agreements with the following unions:

- Laborers International Union of North America
Local 731, Heavy Construction Laborers
Local 29 Drillers and Blasters
Local 147 Tunnel Workers
Local 1010 Asphalt Pavers
- New York District Council of Carpenters
Local 1556 Dockbuilders/Timbermen
- International Union of Operating Engineers
Local 14 / 15 Operating Engineers
Local 15 C Operating Engineers Mechanics & Helpers
Local 15 D Surveyors
- International Brotherhood of Teamsters Local 282
- Metallic Lathers Local 46

Please contact me if you require additional information.

Sincerely,

Denise M. Richardson

SAFETY QUESTIONNAIRE

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

1. Bidder Information:Company Name: JRCRUZ Corp.DDC Project Number: HWPLZ11K

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	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Specialty Trade Contracting	_____	_____
Asbestos Abatement	_____	_____
Other (specify)	_____	_____
<u>BMP Work</u>	<input checked="" type="checkbox"/>	_____

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	<u>INTRASTATE RATE</u>	<u>INTERSTATE RATE</u>
<u>2013</u>	<u>.9</u>	<u>.9</u>
<u>2014</u>	<u>.88</u>	<u>.88</u>
<u>2015</u>	<u>.91</u>	<u>.91</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.

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

YEAR	TOTAL NUMBERS OF HOURS WORKED BY EMPLOYEES	INCIDENT RATE
<u>2013</u>	<u>79,717</u>	<u>5.02</u>
<u>2014</u>	<u>76,598</u>	<u>2.60</u>
<u>2015</u>	<u>116,573</u>	<u>2.24</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): SE-774, SER200187, _____

YES NO Accident on previous DDC Project(s).

DDC Project Number(s): SE-801, SER777R, HD153C2

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: November 2, 2016

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

Title: Jason R. Cruz, Vice President

(NO TEXT ON THIS PAGE)

Log of Work-Related Injuries and Illnesses

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

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

Year **2015**
U.S. Department of Labor
Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

Establishment name

City **Aberdeen**

State **New Jersey**

JRCRUZ Corp.

Identify the person

Describe the case

Classify the case

(A) Case No.	(B) Employer's Name	(C) Job Title (e.g., Welder)	(D) Date of injury or onset of illness (mo./day)	(E) Where the event occurred (e.g., Loading dock north end)	(F) Describe injury or illness, parts of body affected, and object/substance that directly injured or made person ill (e.g., Second degree burns on right forearm from acetylene torch)	CHECK ONLY ONE box for each case based on the most serious outcome for that case:			Enter the number of days the injured or ill worker was:		Check the "injury" column or choose one type of illness.																			
						Days away from work (G)	Job transfer or restriction (H)	Restricted work (I)	Other recordable cases (J)	Away From Work (days) (K)	On job transfer or restriction (days) (L)	Injury (1)	Skin Disorder (2)	Respiratory Condition (3)	Poisoning (4)	Hearing Loss (5)	All other illnesses (6)													
NO REPORTED INJURIES												0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Page totals

Be sure to transfer these totals to the Summary page (Form 300A) before you post it.

Public reporting burden for this collection of information is estimated to average 14 minutes per response, including time to review the instruction, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any aspects of this data collection, contact: US Department of Labor, OSHA Office of Statistics, Room N-3664, 200 Constitution Ave, NW, Washington, DC 20210. Do not send the completed forms to this office.

Summary of Work-Related Injuries and Illnesses

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

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

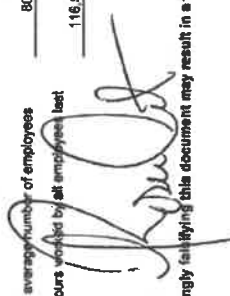
Number of Cases			
Total number of deaths	Total number of cases with days away from work	Total number of cases with job transfer or restriction	Total number of other recordable cases
0 (G)	0 (H)	0 (I)	0 (J)

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

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

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

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

Establishment information	
Your establishment name	JRCRUZ CORP.
Street	875 Line Road
City	Aberdeen
State	New Jersey
Zip	7747
Industry description (e.g., Manufacture of motor truck trailers)	Heavy Construction
Standard Industrial Classification (SIC), if known (e.g., SIC 3715)	
OR North American Industrial Classification (NAICS), if known (e.g., 336212)	
Employment information	
Annual average number of employees	80
Total hours worked by all employees last year	116,573
Sign here	
I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.	
Rosalita Celis	Company executive
732-290-0700	Phone
	1/11/2016
	Date
	Office Manager Title

OSHA's Form 300

Log of Work-Related Injuries and Illnesses

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

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

Year 2014
 U.S. Department of Labor
 Occupational Safety and Health Administration
 Form approved OMB no. 1218-0176

Establishment name JRCRUZ Corp.

City Aberdeen State New Jersey

Classify the case

Describe the case

Identify the person

(A) Case No.	(B) Employee's Name	(C) Job Title (e.g., Welder)	(D) Date of injury or onset of illness (mo./day)	(E) Where the event occurred (e.g., Loading dock north end)	(F) Describe injury or illness, parts of body affected, and object/substance that directly injured or made person ill (e.g., Second degree burns on right forearm from acetylene torch)	Using these categories, check ONLY the most serious result for each case:				Enter the number of days the injured or ill worker was:		Check the "injury" column or choose one type of illness:								
						Death (G)	Days away from work (H)	Job transfer or restriction (I)	Remained at work (J)	Other recordable cases (K)	Away from work (days) (L)	Injury (M)	(1)	(2)	(3)	(4)	(5)			
1	Mario Ribeiro	Laborer	4/08/14	Job Site	Lacerations/Fracture Left Pinky caused by a fall	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2	Justino Desa	Foreman	12/08/14	Job Site	Fractured Sternum as a result of a fall	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Page totals						0	1	0	0	0	0	0	0	0	0	0	0	0	0	0

Be sure to transfer these totals to the Summary page (Form 300A) before you post it.

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

OSHA's Form 300A

Summary of Work-Related Injuries and Illnesses

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

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

Number of Cases

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

Number of Days

Total number of days of job transfer or restriction	Total number of days away from work
0 (K)	31 (L)

Injury and Illness Types

Total number of... (M)	(1) Injury	(4) Poisoning	0
	(2) Skin Disorder	(5) All other illnesses	0
	(3) Respiratory Condition		0

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

Public reporting burden for this collection of information is estimated to average 50 minutes per response, including time to review the instruction, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any aspects of this data collection, contact US Department of Labor, OSHA Office of Statistics, Room N-3644, 201 Constitution Ave. NW, Washington, DC 20210. Do not send the completed forms to this



Year 2014

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

Form approved OMB no. 1218-0176

Establishment Information

Your establishment name JRCRUZ Corp.
 Street 675 Line Road
 City Aberdeen State NJ Zip 07747
 Industry description (e.g., Manufacture of motor truck trailers)
Heavy Construction
 Standard Industrial Classification (SIC), if known (e.g., SIC 3715)

Employment Information

Annual average number of employees 70
 Total hours worked by all employees last year 89,297

Sign here

Knowingly falsifying this document may result in a fine.

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

Rosie Cateo Company executive Office Manager Title
732-290-0700 Phone 1/23/2013 Date

OSHA's Form 300

Log of Work-Related Injuries and Illnesses

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

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



Year 2013

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

Form approved OMB no. 1218-0176

Establishment name JRCRUZ Corp.

City Aberdeen State New Jersey

Classify the case

Table with columns for injury classification: Death, Days away from work, Job transfer, Job transfer or restriction, Remained at work, On job transfer or restriction, Away from work, and Injury type (M).

Describe the case

Table with columns for case description: (A) Case No., (B) Employee's Name, (C) Job Title, (D) Date of injury, (E) Where the event occurred, (F) Describe injury or illness, and (G) Chain link snapped and broken.

Page totals

Be sure to transfer these totals to the Summary page (Form 300A) before you post it.

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

OSHA's Form 300A

Summary of Work-Related Injuries and Illnesses

All establishments covered by Part 1904 must complete this Summary page, even if no injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete.

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

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

Number of Cases

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

Number of Days

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

Injury and Illness Types

Total number of... (M)	(1) Injury	1	(4) Poisoning	0
	(2) Skin Disorder	0	(5) All other illnesses	0
	(3) Respiratory Condition	0		

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

Public reporting burden for this collection of information is estimated to average 50 minutes per response, including time to review the instruction, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any aspects of this data collection, contact US Department of Labor, OSHA Office of Statistics, Room N-3634, 200 Constitution Ave. NW, Washington, DC 20210. Do not send the completed forms to this office.



Year 2013

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

Form approved OMB no. 1218-0178

Establishment Information

Your establishment name JRCRUZ Corp.
 Street 675 Line Road
 City Aberdeen State NJ Zip 07747
 Industry description (e.g., Manufacture of motor truck trailers)
Heavy Construction
 Standard Industrial Classification (SIC), if known (e.g., SIC 3715) _____

Employment Information

Annual average number of employees 40
 Total hours worked by all employees last year 76 598

Sign here

Knowingly falsifying this document may result in a fine.

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

Rosie Cefano Office Manager
 732-290-0700 Phone
 Title
 Date 1/21/2014

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.

JRCRUZ Corp.

A. Project References- Similar Contracts Completed by The Bidder

1 of 5

PROJECT NAME, LOCATION DESCRIPTION	CONTRACT TYPE/ DETAILS	CONTRACT AMOUNT	DATE COMPLETED	OWNER REFERENCE/ TELEPHONE #	ENGINEER REFERENCE/ TELEPHONE #
HWKP2009 CONSTRUCTION OF BULKHEAD AT EAST 66th STREET BROOKLYN, NY	HIGHWAY/ SEA WALL 620ff PZ27 Steel Sheet Pile Sea Wall 620ff Pile Cap 620ff Concrete Curbs/ Sidewalks 2000sq Asphalt Roadway	\$838,838.00	JUNE 2002/ DEC. 2002	N.Y.C. DEPT. OF DESIGN & CONSTRUCTION 30-30 THOMSON AVENUE, 3rd FL LONG ISLAND CITY, N.Y. 11101	SAME AS OWNER MAX ACHILLE 718-391-1830
SE-759760792(BMP) CONST. OF STORM & SANITARY SEWERS, WATER MAINS, CURBS, SIDEWALKS AND ROAD RESTORATION IN ARBUTUS AVE., S.I. N.Y.	37000ff Sewer Installation (48"-10" dia) 11055ff Water Main Installation 1300ff Microtunneling 8 ea Chamber Construction 7.5 ac BMP Construction 44000sq Asphalt Roadway	\$19,861,988.00	JULY 2001/ JULY 2003	N.Y.C. DEPT. OF DESIGN & CONSTRUCTION 30-30 THOMSON AVENUE, 3rd FL LONG ISLAND CITY, N.Y. 11101	SAME AS OWNER THOMAS FOLEY P.E. 212-442-1900
SER002248 CONST. OF STORM & SANITARY SEWERS, WATER MAINS, CURBS, SIDEWALKS AND ROAD RESTORATION IN NETHERLAND AVE., S.I. N.Y.	2952ff Sewer Installation (6.5'X3' Culv-10" dia) 1800ff Water Main Installation (20"-6" dia) 2 ea Chamber Construction 1300sq Asphalt Roadway	\$1,868,168.00	OCTOBER 2002/ JULY 2003	N.Y.C. DEPT. OF DESIGN & CONSTRUCTION 30-30 THOMSON AVENUE, 3rd FL LONG ISLAND CITY, N.Y. 11101	SAME AS OWNER WALKMAN WONG P.E. 718-391-2485
SER002166 CONST. OF STORM & SANITARY SEWERS AND INSTALLATION OF WATER MAINS IN BLOOMINGDALE ROAD SI, NY	8800ff Sewer Installation (30"-10" dia) 4000ff Water Main Installation (20"-6" dia) 14000sq Asphalt Roadway	\$4,345,543.00	OCTOBER 2004	N.Y.C. DEPT. OF DESIGN & CONSTRUCTION 30-30 THOMSON AVENUE, 3rd FL LONG ISLAND CITY, N.Y. 11101	SAME AS OWNER THOMAS FOLEY, P.E. 212-442-1900
SER200170 CONST. OF COMBINED SEWERS IN Hylan Blvd. STATEN ISLAND, NY	SEWERS WATER MAINS CURBS AND SIDEWALKS	\$1,668,668.00	Nov. 2004	N.Y.C. DEPT. OF DESIGN & CONSTRUCTION 30-30 THOMSON AVENUE, 3rd FL LONG ISLAND CITY, N.Y. 11101	SAME AS OWNER BOB YUEH 718-391-1937

A. Project References- Similar Contracts Completed by The Bidder

PROJECT NAME, LOCATION DESCRIPTION	CONTRACT TYPE	CONTRACT AMOUNT	DATE COMPLETED	OWNER REFERENCE/ TELEPHONE #	ENGINEER REFERENCE/ TELEPHONE #
SER002204 CONST. OF SANITARY SEWERS IN WAGNER STREET STATEN ISLAND, NY	INSTALL SANITARY SEWERS CURBS AND SIDEWALKS	\$1,168,168.00	May 2005	N.Y.C. DEPT. OF DESIGN & CONSTRUCTION 30-30 THOMSON AVENUE, 3rd FL LONG ISLAND CITY, N.Y. 11101	SAME AS OWNER WALKMAN WONG, P.E. 718-391-2485
SER002266 CONST. OF SANITARY SEWERS IN WESTWOOD AVENUE STATEN ISLAND, NY	INSTALL SANITARY SEWERS CURBS AND SIDEWALKS	\$3,473,374.00	June 2005	N.Y.C. DEPT. OF DESIGN & CONSTRUCTION 30-30 THOMSON AVENUE, 3rd FL LONG ISLAND CITY, N.Y. 11101	SAME AS OWNER CHRIS IGWEATU (718) 391-1907
SER20088 CONST. OF STORM & SANITARY SEWERS, BMPS, CURBS, SIDEWALKS AND ROAD RESTORATION IN EDGEGROVE AVE., S.I. N.Y.	SEWER/ BMP	\$5,828,901.00	July 2005	N.Y.C. DEPT. OF DESIGN & CONSTRUCTION 30-30 THOMSON AVENUE, 3rd FL LONG ISLAND CITY, N.Y. 11101	SAME AS OWNER THOMAS FOLEY P.E. 212-442-1900
CONTRACT NO. HWRP2004 RECONSTRUCTION OF BAY STREET STATEN ISLAND, NY	INSTALL SANITARY & STORM SEWERS, WATER MAINS , CURBS SIDEWALKS, ETC.	\$1,671,624.00	March 2006	N.Y.C DEPT. OF DESIGN & CONSTRUCTION 30-30 THOMSON AVENUE LONG ISLAND CITY, NY 11101	SAME AS OWNER ADAM ALWEISS 718-391-1357
CONTRACT NO. SER200187 CONSTRUCTION OF STORM & SANITARY SEWERS AND INSTALLATION OF WATER MAINS IN FLINT STREET, STATEN ISLAND, NY	INSTALL SANITARY & STORM SEWERS, WATER MAINS , CURBS SIDEWALKS, ETC.	\$1,838,838.00	May 2006	N.Y.C DEPT. OF DESIGN & CONSTRUCTION 30-30 THOMSON AVENUE LONG ISLAND CITY, NY 11101	SAME AS OWNER ADAM ALWEISS 719-391-1357
SE774 CONST. OF SANITARY SEWERS WATER MAINS AND MICROTUNNELING IN FORT HAMILTON PARKWAY BROOKLYN, NY	INSTALL SANITARY SEWERS WATER MAINS MICROTUNNELING	\$6,876,542.00	November 2006	N.Y.C. DEPT. OF DESIGN & CONSTRUCTION 30-30 THOMSON AVENUE, 3rd FL LONG ISLAND CITY, N.Y. 11101	SAME AS OWNER ROBERT YUEH 718-391-1937

A. Project References- Similar Contracts Completed by The Bidder

PROJECT NAME, LOCATION DESCRIPTION	CONTRACT TYPE	CONTRACT AMOUNT	DATE COMPLETED	OWNER REFERENCE/ TELEPHONE #	ENGINEER REFERENCE/ TELEPHONE #
CONTRACT NO. HWC988E SAFETY IMPROVEMENTS TO AMBOY ROAD STATEN ISLAND, NY	INSTALL SANITARY & STORM SEWERS, WATER MAINS , CURBS SIDEWALKS, ETC.	\$2,607,769.00	November 2006	N.Y.C DEPT. OF DESIGN & CONSTRUCTION 30-30 THOMSON AVENUE LONG ISLAND CITY, NY 11101	SAME AS OWNER SANJAY MODI 212-442-1897
CONTRACT NO. KERRIGAN AVENUE SEWER REPLACEMENT KERRIGAN AVENUE, JERSEY CITY, NJ	SEWER REPLACEMENT	\$3,288,168.00	December 2006	NORTH HUDSON SEWERAGE AUTHORITY 1600 ADAMS STREET HOBOKEN, NJ 07030	CH2MHILL DAVE MISSIG, P.E. (973) 316-0159
CONTRACT NO. SER002216 CONSTRUCTION OF STORM & SANITARY SEWERS AND INSTALLATION OF WATER MAINS IN RIDGECREST AVE., STATEN ISLAND, NY	INSTALL SANITARY & STORM SEWERS, WATER MAINS , CURBS SIDEWALKS, ETC.	\$3,960,581.20	December 2006	N.Y.C DEPT. OF DESIGN & CONSTRUCTION 30-30 THOMSON AVENUE LONG ISLAND CITY, NY 11101	SAME AS OWNER SAM RIAD, P.E. 718-391-2146
CONTRACT NO. SEQ200453 CONSTRUCTION OF STORM AND SANITARY SEWERS IN THURSBY AVE. BOROUGH OF QUEENS, NY	INSTALL SANITARY & STORM SEWERS, WATER MAINS , CURBS SIDEWALKS, ETC.	\$7,785,948.00	July 2007	N.Y.C DEPT. OF DESIGN & CONSTRUCTION 30-30 THOMSON AVENUE LONG ISLAND CITY, NY 11101	SAME AS OWNER ERICK SATTLER, P.E. 718-391-1966
CONTRACT NO. SE-208C CONSTRUCTION OF STORM & SANITARY SEWERS AND INSTALLATION OF WATER MAINS IN HAROLD ST., STATEN ISLAND, NY	INSTALL SANITARY & STORM SEWERS, WATER MAINS , CURBS SIDEWALKS, ETC.	\$14,750,000.00	June 2007	N.Y.C DEPT. OF DESIGN & CONSTRUCTION 30-30 THOMSON AVENUE LONG ISLAND CITY, NY 11101	SAME AS OWNER SHAKEEL AHMED, P.E. 718-391-1110
SEQ200509 CONSTRUCTION OF STORM SEWERS AND WATER MAINS IN ROCKAWAY BEACH BLVD. QUEENS, NY	INSTALL SANITARY & STORM SEWERS, WATER MAINS , CURBS SIDEWALKS, ETC.	\$1,388,888.00	July 2007	N.Y.C DEPT. OF DESIGN & CONSTRUCTION 30-30 THOMSON AVENUE LONG ISLAND CITY, NY 11101	SAME AS OWNER ERICK SATTLER, P.E. 718-391-1966

A. Project References- Similar Contracts Completed by The Bidder

PROJECT NAME, LOCATION DESCRIPTION	CONTRACT TYPE/ DETAILS	CONTRACT AMOUNT	DATE COMPLETED	OWNER REFERENCE/ TELEPHONE #	ENGINEER REFERENCE/ TELEPHONE #
SE-777-R CONSTRUCTION OF STORM AND SANITARY SEWERS WATER MAINS AND BMP WORK NORTH RAILROAD STREET STATEN ISLAND, NY	INSTALL SANITARY & STORM SEWERS, WATER MAINS , CURBS SIDEWALKS AND BMP WORK	\$34,720,000.00	August, 2010	N.Y.C DEPT. OF DESIGN & CONSTRUCTION 30-30 THOMSON AVENUE, 3RD FL. LONG ISLAND CITY, NY 11101	SAME AS OWNER SHAKEEL AHMED, P.E. 718-391-1110
SER002167 CONSTRUCTION OF SANITARY AND STORM SEWERS AND THE INSTALLATION OF WATER MAINS IN RICHMOND TERRACE STATEN ISLAND, NY	CONSTRUCTION OF SANITARY AND STORM SEWERS AND WATER MAINS	\$5,231,290.00	Feb-11	N.Y.C. DEPT. OF DESIGN & CONSTRUCTION 30-30 THOMSON AVENUE, 3RD FLOOR LONG ISLAND CITY, NY 11101	SAME AS OWNER SHAKEEL AHMED, P.E. 718-391-1110
HWSEMERG EMERGENCY CURB & SIDEWALK REPAIRS VARIOUS LOCATIONS IN QUEENS, NEW YORK	CURB AND SIDEWALK REPAIRS	\$2,000,000.00	December, 2010	N.Y.C. DEPT. OF DESIGN & CONSTRUCTION 30-30 THOMSON AVENUE, 3RD FLOOR LONG ISLAND CITY, NY 11101	SAME AS OWNER ERICK SATTLER, P.E. 718-391-1966
CSO-IH-12 CONSTRUCTION OF INNER HARBOR IN LINE STORAGE FACILITIES BROOKLYN, NY	COMBINE SEWER OVERFLOW SOLIDS FLOATABLE STORAGE	\$12,954,128.00	Mar-11	N.Y.C DEPT. OF ENVIRONMENTAL PROTECTION 59-17 JUNCTION BLVD., 17TH FLOOR FLUSHING, NY 11373	SAME AS OWNER WARREN GORDON 718-595-6229

JRCRUZ Corp.

A. Project References- Similar Contracts Completed by The Bidder

PROJECT NAME, LOCATION DESCRIPTION	CONTRACT TYPE/ DETAILS	CONTRACT AMOUNT	DATE COMPLETED	OWNER REFERENCE/ TELEPHONE #	ENGINEER REFERENCE/ TELEPHONE #
SE-801 CONSTRUCTION OF STORM AND SANITARY SEWERS IN ALBEE AVENUE STATEN ISLAND, NY	INSTALL SANITARY & STORM SEWERS, WATER MAINS , CURBS AND SIDEWALKS	\$16,383,383.00	Aug-11	N.Y.C DEPT. OF DESIGN & CONSTRUCTION 30-30 THOMSON AVENUE, 3RD FL. LONG ISLAND CITY, NY 11101	SAME AS OWNER SHAKEEL AHMED, P.E. 718-391-1110
CONTRACT NO. SEQ200523 CONSTRUCTION OF SANITARY AND STORM SEWERS AND APPURTENANCES IN NEW HAVEN AVENUE BOROUGH OF QUEENS	INSTALL SANITARY SEWERS AND WATER MAIN STREET LIGHTING AND TRAFFIC WORK	\$6,803,128.00	Aug-13	N.Y.C DEPT. OF DESIGN & CONSTRUCTION 30-30 THOMSON AVENUE LONG ISLAND CITY, NY 11101	SAME AS OWNER LAMBERT MONAH, P.E. 718-391-2469
BED-778 REPLACEMENT OF WATER MAINS IN ATLANTIC AVENUE BROOKLYN, NY	INSTALLATION OF TRUNK AND DISTRIBUTION OF WATER MAINS, INCLUDING LIGHTING AND TRAFFIC WORK	\$13,929,929.00	Nov-13	N.Y.C DEPT. OF DESIGN & CONSTRUCTION 30-30 THOMSON AVENUE LONG ISLAND CITY, NY 11101	SAME AS OWNER ROBERT YUEH, P.E. 718-391-1937
CONTRACT NO. SER200200 CONSTRUCTION OF SANITARY AND STORM SEWERS AND APPURTENANCES IN O'GORMAN AVE. BOROUGH OF STATEN ISLAND, NY	INSTALL SANITARY & STORM SEWERS AND WATER MAIN STREET LIGHTING AND TRAFFIC WORK	\$5,966,966.00	May-14	N.Y.C DEPT. OF DESIGN & CONSTRUCTION 30-30 THOMSON AVENUE LONG ISLAND CITY, NY 11101	SAME AS OWNER SHAKEEL AHMED, P.E. 718-391-1110

B. Project References-Contracts Currently Under Construction by The Bidder

PROJECT NAME, LOCATION DESCRIPTION	CONTRACT TYPE	CONTRACT AMOUNT	PERCENT COMPLETE	SCHEDULED COMPLETION DATE	OWNER REFERENCE/ TELEPHONE #	ENGINEER REFERENCE/ TELEPHONE #
HD153C EDGEEMERE URBAN RENEWAL AREA PHASE C1 BEACH 43RD STREET FAR ROCKAWAY, NY	CONSTRUCTION OF SANITARY AND STORM SEWERS AND WATER MAINS	\$24,350,628.00	99%	Sep-14	N.Y.C DEPT. OF DESIGN & CONSTRUCTION 30-30 THOMSON AVENUE LONG ISLAND CITY, NY 11101	SAME AS OWNER MEHRABAN AHOURAIE 718-391-1953
CONTRACT NO. HD153C2 RECONSTRUCTION OF EDGEEMERE URBAN RENEWAL AREA. PASE C2 QUEENS, NY	INSTALL SANITARY SEWERS AND WATER MAIN STREET LIGHTING AND TRAFFIC WORK	\$37,798,798.00	95%	May-17	N.Y.C DEPT. OF DESIGN & CONSTRUCTION 30-30 THOMSON AVENUE LONG ISLAND CITY, NY 11101	SAME AS OWNER MEHRABAN AHOURAIE 718-391-1953
CONTRACT NO. SEQ200508 CONSTRUCTION OF SANITARY AND STORM SEWERS AND APPURTENANCES IN BAY 32ND STREET BOROUGH OF QUIENS	INSTALL SANITARY & STORM SEWERS AND WATER MAIN STREET LIGHTING AND TRAFFIC WORK	\$11,411,411.00	100%	Aug-15	N.Y.C DEPT. OF DESIGN & CONSTRUCTION 30-30 THOMSON AVENUE LONG ISLAND CITY, NY 11101	SAME AS OWNER MEHRABAN AHOURAIE 718-391-1953
CONTRACT NO. 18720006 NEW STAPLETON WATERFRONT PHASE II PROJECT	ROADWAY RECONSTRUCTION OPEN SPACE, UNDERGROUND UTILITIES, PATHWAY LANDSCAPING AND ELECTRICAL WORK	\$12,179,902.00	80%	October, 2016	N.Y.C ECONOMIC DEVELOPMENT CORPORATION 110 WILLIAM STREET NEW YORK, NY 100038	Kristofer Segler 718-447-1121
CONTRACT NO. SE-734 CONSTRUCTION OF SANITARY AND STORM SEWERS AND APPURTENANCES IN RICHARD AVE. BOROUGH OF STATEN ISLAND, NY	INSTALL SANITARY & STORM SEWERS AND WATER MAIN STREET LIGHTING AND TRAFFIC WORK	\$12,789,997.00	50%	Feb-17	N.Y.C DEPT. OF DESIGN & CONSTRUCTION 30-30 THOMSON AVENUE LONG ISLAND CITY, NY 11101	SAME AS OWNER SHAKEEL AHMED, P.E.

JRCRUZ Corp.

B. Project References-Contracts Currently Under Construction by The Bidder

PROJECT NAME, LOCATION DESCRIPTION	CONTRACT TYPE	CONTRACT AMOUNT	PERCENT COMPLETE	SCHEDULED COMPLETION DATE	OWNER REFERENCE/ TELEPHONE #	ENGINEER REFERENCE TELEPHONE
CONTRACT NO. NA-2013-47 NEWARK AVENUE SEWER IMPROVEMENTS JERSEY CITY, NJ	REMOVAL AND REPLACEMENT OF COMBINED SEWERS, TIDE GATE REGULATOR, MANHOLES, LATERALS AND PAVEMENT RESTORATION	\$5,948,420.00	100%	Mar-15	JERSEY CITY MUNICIPAL UTILITIES AUTHORITY 555 ROUTE #440 JERSEY CITY, NJ 07305	Kevin Carr 201-432-0845
CONTRACT NO. CS-JA-BBS BERGEN BASIN SEWER RECONSTRUCTION BOROUGH OF QUEENS, NY	800 LF OF MICROTUNNELING 1 JACKING SHAFT 2 RECEIVING SHAFTS RELOCATION OF WATER MAINS AND FINAL RESTORATION	\$20,256,909.00	80%	Jan-2017	N.Y.C. DEPT. OF ENVIRONMENTLA PROTECTION 59-17 JUNCTION BOULEVARD FLUSHING, NY 11373	SAME AS OWNER NEIL O'CONNOR 718-848-2807
CONTRACT NO. HWCSC3HF SAFE RUTES TO SCHOOL PHASE III, 3 SCHOOLS BOROUGH OF STATEN ISLAND, NY	SAFE ROUTES TO SCHOOL PHASE III INCLUDING CURBS & SIDEWALKS RECONSTRUCTION, PAVEMENT MARKINGS, SEWERS, WATERMANS, STREET LIGHTING	\$2,138,042.48	95%	June - 2106	N.Y.C DEPT. OF DESIGN & CONSTRUCTION 30-30 THOMSON AVENUE LONG ISLAND CITY, NY 11101	SAME AS OWNER Joseph Pkwowski 718-391-1296
CONTRACT NO. PVC341-M HRT - CENTER ST. MUSEUM BLDG. UTILITY UPGARDES BOROUGH OF STATEN ISLAND, NY	RECONSTRUCTION OF HISTORIC RICHMONDTOWN BUILDING INCLUDING SEWERS, WATER MAINS, SIDEWLAKS AND FINAL PAVEMENT RESTORATION OF ROADWAY	\$8,281,927.00	80%	Apr-17	N.Y.C DEPT. OF DESIGN & CONSTRUCTION 30-30 THOMSON AVENUE LONG ISLAND CITY, NY 11101	SAME AS OWNER Joseph Pkwowski 718-391-1296

JRCRUZ Corp.

B. Project References-Contracts Currently Under Construction by The Bidder

PROJECT NAME, LOCATION DESCRIPTION	CONTRACT TYPE	CONTRACT AMOUNT	PERCENT COMPLETE	SCHEDULED COMPLETION DATE	OWNER REFERENCE/ TELEPHONE #	ENGINEER REFERENCE TELEPHONE
CONTRACT NO. MIBBNC001 CONSTRUCTION OF COMBINED SEWERS AND APPURTENANCES IN KISWICK AVE., BOROUGH OF STATEN ISLAND, NY	CONSTRUCTION OF COMBINED SEWERS, INSTALLATION OF WATER MAINS, BMP WORK, FINAL RESTORATION WORK	\$22,228,507.00	20%	June, 2017	N.Y.C DEPT. OF DESIGN & CONSTRUCTION 30-30 THOMSON AVENUE LONG ISLAND CITY, NY 11101	David Peterson 347-723-1439
CONTRACT NO. SE798 CONSTRUCTION OF COMBINED SEWERS AND APPURTENANCES IN ARMSTRONG AVE., BOROUGH OF STATEN ISLAND, NY	CONSTRUCTION OF COMBINED SEWERS, INSTALLATION OF WATER MAINS, BMP WORK, FINAL RESTORATION WORK	\$38,363,358.00	5%	October, 2018	N.Y.C DEPT. OF DESIGN & CONSTRUCTION 30-30 THOMSON AVENUE LONG ISLAND CITY, NY 11101	Sergio Herrera 718-966-2540
CONTRACT NO. 27360016 HUNTER'S POINT SOUTH PHASE 2 PROJECT QUEENS WEST, NY	INSTALLATION OF STORM AND SANITARY SEWERS, PRIVATE UTILITY WORK, NEW PAVEMENT, SIDEWALKS, CURBS, LANDSCAPING, STREET LIGHTS, ETC.	\$23,589,935.30	2%	8, 2017	NYS EDC (Owner) LIRO PROGRAM AND CONSTRUCTION MANAGEMENT, P.E. (Prime) 3 AERIAL WAY, SYOSSET, NY 11791	James Eckhoff 516-938-5476
CONTRACT NO. HW0213C RECONSTRUCTION OF MAIN STREET WITH WIDENED SIDEWALKS IN DOWNTOWN FLUSHING BOROUGH OF QUEENS, NY	CONSTRUCTION OF COMBINED SEWERS, INSTALLATION OF WATER MAINS, SIDEWALKS AND FINAL RESTORATION WORK	\$7,800,915.00	1%	Not Known	N.Y.C DEPT. OF DESIGN & CONSTRUCTION 30-30 THOMSON AVENUE LONG ISLAND CITY, NY 11101	Not Known At This Time

JRCRUZ Corp.

C. Project References - Pending Contracts Not Yet Started by The Contractor

PROJECT NAME, LOCATION DESCRIPTION	CONTRACT TYPE	CONTRACT AMOUNT	PERCENT COMPLETE	START DATE COMPLETION DATE	OWNER REFERENCE/ TELEPHONE #
NONE					

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.

Name of Bidder: JRCRUZ Corp.
Bidder's Address: 675 Line Road, Aberdeen, NJ 07747
Bidder's Telephone Number: 732-290-0700
Bidder's Fax Number: 732-290-8960
Date of Bid Opening: November 2, 2016
Project ID: HWPLZ011K

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, 9th Floor, New York, New York 10007.

Date of Submission: _____

By: _____
(Signature of Partner or corporate officer)

Print Name: _____

- (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: Jason R. Cruz, Vice President

(NO TEXT ON THIS PAGE)

Certificate of No Change Form

- Please fill in all the fields and DO NOT leave any field blank.
- Please submit two completed forms. Copies will not be accepted.
- Please send both copies to the agency that requested it, unless you are advised to send it directly to the Mayor's Office of Contract Services (MOCS).
- A materially 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, Jason R. Cruz, 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: JRCRUZ Corp.

Vendor's Address: 675 Line Road, Aberdeen, NJ 07747

Vendor's EIN or TIN: 223373796 Requesting Agency: NYC EDC

Are you submitting this Certification as a parent? (Please circle one) Yes No

Signature date on the last full vendor questionnaire signed by the submitting vendor: 10/27/2015

Signature date on changed submission, if applicable, for the submitting vendor: _____

Principal Questionnaire

This section refers to the most recent principal questionnaire submissions.



Principal Name	Date of signature on last full Principal Questionnaire	Date(s) of signature on Changed Submission (if applicable)
1 Evaristo Cruz, Jr.	10/27/2015	
2 David S. Cruz	10/27/2015	
3 Matthew J. Cruz	10/27/2015	
4 Jason R. Cruz	10/27/2015	
5 Joyce A. Cruz	10/27/2015	
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:

Jason R. Cruz

Name (Print)

Vice President

Title

JRCRUZ Corp.

Name of Submitting Entity

Signature

11/02/2016

Date

Notarized By:

Notary Public

Monmouth

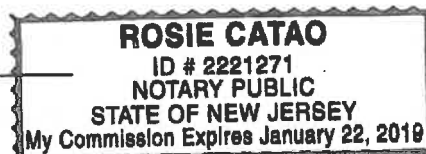
County License Issued

2221271

License Number

Sworn to before me on: 11/02/2016

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

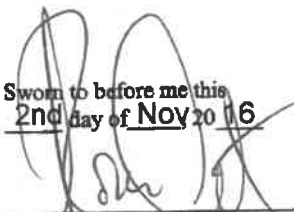
- By submission of this bid or proposal, each bidder/proposer and each person signing on behalf of any bidder/proposer certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief, that each bidder/proposer 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

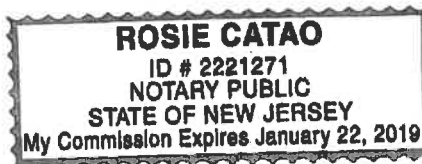
Jason R. Cruz
PRINTED NAME

Vice President
TITLE

Sworn to before me this
2nd day of Nov 20 16


Notary Public

Dated: November 2, 2016



**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:

		SIGN 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	Less than \$750,000 Certificate (City/State Only)

Prime Contractor:

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

Subcontractor:

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

WHERE TO FILE

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

DLS REVIEW PROCESS

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

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
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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 M/WBE goals attached to this project? Yes No
2. Please check one of the following if your firm would like information on how to certify with the City of New York as a:
- Minority Owned Business Enterprise Locally Based Business Enterprise
 Women Owned Business Enterprise Emerging Business Enterprise
 Disadvantaged Business Enterprise
- 2a. If you are certified as an MBE, WBE, LBE, EBE or DBE, what city/state agency are you certified with? _____ Are you DBE certified? Yes No
3. Please indicate if you would like assistance from SBS in identifying certified M/WBEs for contracting opportunities: Yes No
4. Is this project subject to a project labor agreement? Yes No
5. Are you a Union contractor? Yes No If yes, please list which local(s) you affiliated with Operating Engineers Local 14 & 15, Laborers Local 731, 1010, Dockbuilders/ Timbermen Local 1556
6. Are you a Veteran owned company? Yes No

PART I: CONTRACTOR/SUBCONTRACTOR INFORMATION

7. 22-3373796 engineering@jrcruz.com
Employer Identification Number or Federal Tax I.D. Email Address
8. JRCRUZ Corp.
Company Name
9. 675 Line Road, Aberdeen, NJ 07747
Company Address and Zip Code
10. Evaristo Cruz, Jr., P.E. 732-290-0700
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: 100+/-

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 X No ___

If yes, attach a copy of such certificate.

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

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

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

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 X No ___ GCA

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.

Y (a) Health benefit coverage/description(s) for all management, nonunion and union employees (whether company or union administered)

Y (b) Disability, life, other insurance coverage/description

N (c) Employee Policy/Handbook

N (d) Personnel Policy/Manual

N (e) Supervisor's Policy/Manual

Y (f) Pension plan or 401k coverage/description for all management, nonunion and union employees, whether company or union administered

Y (g) Collective bargaining agreement(s).

Y (h) Employment Application(s)

N (i) Employee evaluation policy/form(s).

Y (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 <u>X</u> |
| (b) After a conditional job offer | Yes ___ | No <u>X</u> |
| (c) After a job offer | Yes <u>X</u> | No ___ |
| (d) Within the first three days on the job | Yes <u>X</u> | No ___ |
| (e) To some applicants | Yes ___ | No <u>X</u> |
| (f) To all applicants | Yes <u>X</u> | No ___ |
| (g) To some employees | Yes ___ | No <u>X</u> |
| (h) To all employees | Yes <u>X</u> | No ___ |

22. Explain where and how completed I-9 Forms, with their supportive documentation, are maintained and made accessible.
Completed at the field office, witnessed and signed by President of the
Corporation. Filed in the main office.

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

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 X No ___

If yes, list the document(s) and page number(s) where these written policies are located.
Equal Employment and Affirmative Action. Page 1 and Statements Policies.
Section B Equal Employment.

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

- X Minorities and Women
X 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 X 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 X

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 X

If yes, attach a log. See instructions.

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

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) Jason R. Cruz 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.

JRCRUZ Corp.

Contractor's Name

Rosie Catao

Payroll Department

Name of person who prepared this Employment Report

Title

Jason R. Cruz

Vice President

Name of official authorized to sign on behalf of the contractor

Title

732-290-0700

Telephone Number

November 2, 2016

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 2nd day of November 2016

Notary Public

Authorized Signature

Date

ROSIE CATAO
ID # 2221271
NOTARY PUBLIC
STATE OF NEW JERSEY
My Commission Expires January 22, 2019

FORM A CONTRACT BID 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
NOT KNOWN AT THIS TIME				

*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

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: Laborers Local 731	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	6		2							
H										
A										
TRN										
TOT	6		2							

Total (Col. #1-10):
6

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

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

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

Unions and Community Outreach

FORM B: PROJECTED WORKFORCE

Trade: Operating Engineers

Union Affiliation, if applicable
14 & 15

Total (Col. #1-10):
4

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

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

	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	4									
H										
A										
TRN										
TOT	4									

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

FORM B: PROJECTED WORKFORCE

Trade: Timbermen
 Union Affiliation, if applicable
1556

Total (Col. #1-10):
2
 Total Minority, Male & Female
 (Col. #2,3,4,5,7,8,9, & 10):
1

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

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

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

FORM C: CURRENT WORKFORCE

TRADE CLASSIFICATION CODES

- (J) Journeylevel Workers
- (H) Helper
- (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)		(2)		(3)	(4)		(5)	(6)		(7)	(8)	(9)	(10)
	White Non Hisp.	Black Non Hisp.	White Non Hisp.	Black Non Hisp.	Hisp.	Asian	Native Amer.	White Non Hisp.	Black Non Hisp.	White Non Hisp.	Black Non Hisp.	Hisp.	Asian	Native Amer.
Dockbuilder					2									
Union Affiliation, if applicable														
1556														
Total (Col. #1-10):					2									
Total Minority, Male & Female (Col. #2,3,4,5,7,8,9, & 10):					2									
Total Female (Col. #6 - 10):														
0														
J														
H														
A														
TRN														
TOT					2									

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

FORM C: CURRENT WORKFORCE

TRADE CLASSIFICATION CODES

(J) Journeylevel Workers
 (H) Helper
 (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)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	White Non Hisp.	Black Non Hisp.	White Non Hisp.	Asian Hisp.	Native Amer.	White Non Hisp.	Black Non Hisp.	White Non Hisp.	Asian Hisp.	Native Amer.
Timbermen	3	1	4							
Union Affiliation, if applicable										
1556										
Total (Col. #1-10):	8									
Total Minority, Male & Female (Col. #2,3,4,5,7,8,9, & 10):	5									
Total Female (Col. #6 - 10):	0									
J	3	1	4							
H										
A										
TRN										
TOT	3	1	4							

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

Unions and Community Outreach

FORM C: CURRENT WORKFORCE

TRADE CLASSIFICATION CODES

- (J) Journeylevel Workers
- (H) Helper
- (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)	(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.
Laborers	19		6							
Union Affiliation, if applicable 731 & 1010										
Total (Col. #1-10): 25										
Total Minority, Male & Female (Col. #2,3,4,5,7,8,9, & 10): 6										
Total Female (Col. #6 - 10): 0										
J										
H										
A										
TRN										
TOT	19		6							

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

Unions and Community Outreach

FORM C: CURRENT WORKFORCE

Trade: Operators

Union Affiliation, if applicable
14 & 15

Total (Col. #1-10):
14

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

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

	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	12		2							
H										
A										
TRN										
TOT	12		2							

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

FORM C: CURRENT WORKFORCE

Trade: Crossing Guards
 Union Affiliation, if applicable: N/A

Total (Col. #1-10): 7
 Total Minority, Male & Female (Col. #2,3,4,5,7,8,9, & 10): 7

Total Female (Col. #6 - 10): 3

	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		4					3			
H										
A										
TRN										
TOT										

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

(NO TEXT ON THIS PAGE)

(NO TEXT ON THIS PAGE)

The City of New York Department of Small Business Services
Division of Labor Services Contract Compliance Unit
110 William Street, New York, New York 10038
Phone: (212) 513 - 6323
Fax: (212) 618-8879

CONSTRUCTION EMPLOYMENT REPORT

GENERAL INFORMATION

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

PART I: CONTRACTOR/SUBCONTRACTOR INFORMATION

7. _____
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

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

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

NOTE: All proposed subcontractors with a subcontract in excess of \$760,000 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.

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)?

FORM B: PROJECTED 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)	(4)	(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)?

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.

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.	
	White Non Hisp.	Black Non Hisp.	White Non Hisp.	Black Non Hisp.	Hisp.	Asian	Hisp.	Asian	Native Amer.	Native Amer.
J										
H										
A										
TRN										
TOT										

FEMALES

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

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

FORM 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

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

___ Locally based Business Enterprise

___ Women Owned Business Enterprise

___ Emerging Business Enterprise

___ Disadvantaged Business Enterprise

Company Name

Employer Identification Number or Federal Tax I.D

Company Address and Zip Code

Contact Person (First Name, Last Name)

Telephone Number

Fax Number

E-mail Address

Description and location of proposed subcontract:

Are you a Union contractor? Yes ___ No ___ If yes, 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)

Revised 8/13

FOR OFFICIAL USE ONLY: File No. _____

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

Sworn to before me this _____ day of _____ 20____
Only original signatures accepted.

Notary Public

Authorized Signature

Date

ATTACH TO CONTRACT DOCUMENTS
THE CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
DIVISION OF INFRASTRUCTURE
BUREAU OF DESIGN

PROJECT ID: **HWPLZ011K**

RECONSTRUCTION OF ZION PLAZA

INCLUDING CURB AND SIDEWALK RECONSTRUCTION, STREET LIGHTING,
TRAFFIC SIGNALS, AND BIOSWALE WORK

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

ADDENDUM NO. 1

DATED: OCTOBER 26, 2016

THIS ADDENDUM IS HEREBY MADE A PART OF THE CONTRACT DOCUMENTS

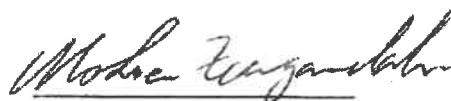
- (1) Refer to the Bid and Contract Documents, Volume 3 of 3;
Delete U-PAGES, Section U (Version 2.0) Dated March 9, 2015 in its
entirety.
Insert Attached new U-PAGES, Section U (Version 2.0) Dated October 26, 2016

(2) For additional information, see the attached 1(one) page of "Questions
Submitted by Bidders and DDC's Responses".

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 eighteen (18) pages of attachment.**

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



Mohsen Zargarelahi, P.E.
Assistant Commissioner

JRCRUZ Corp.

Name of Bidder

By: 

Cynthia Strodel, Admin Asst - Engineering

Questions Submitted by Bidders and DDC's Responses

QUESTION #1: Bid Item # 113- E262816 Enclosed Switch 200 Amp (4) is not shown on the contract drawings.

DDC'S RESPONSE: This should be the main disconnect switch for the entire electric system, quantity should be one (1) instead of four (4) and can be located in the field later, preferably near the panelboard/meter as per directed by engineer. Refer to contract drawing E2.

QUESTION #2: Similarly there is a 20 Amp in line GFCI (Leviton #69891-3) quantity of four (4) shown with no bid item number. Under which number is this item to be charged?

DDC'S RESPONSE: Item is covered under Event Box receptacle, E 262726 G.

QUESTION #3: Is it possible the intent is to use Bid Item #113 E262816 Enclosed Switch 200 Amp Quantity of (4) for the 20 amp in line GFCI?

DDC'S RESPONSE: No.

QUESTION #4: Please refer to the bid schedule form, sequence number 108, item number E260533CB "free standing company switch enclosure". Please provide a specification on this item.

DDC'S RESPONSE: Please refer to Section E260533, Raceway and Boxes for Electrical Systems Pages EL-16 to EL-23.

QUESTION #5: Please refer to the bid schedule form, sequence number 113, item number E262816A "enclosed switch fused 200A." The quantity shown is 4 and the electrical detail drawing E2 only calls for one panelboard, which would require only one switch. Please confirm if the quantity is correct.

DDC'S RESPONSE: Please refer to DDC's Response to Question #1 above.

U - PAGES

SECTION U (VERSION 2.0)

NOTICE

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

SECTION U (VERSION 2.0)

DATED: October 26, 2016

1. The Contractor shall be responsible for compliance with all the provisions of the following Sections and Schedules, which are hereby made a part of the original contract documents:
 - A. "SECTION U: Additional Contract Requirements Applying to Work Performed in the Presence of Privately Owned Utility Facilities" (Pages U-3 through U-13)
 - B. Schedule U-1 (Page U-15)
 - C. Schedule U-2 listing scope of utility interferences is no longer included in City contract. Such information will be part of Interference Agreement between Utility Operator and the Contractor.
 - D. Schedule U-3 Page U-16 (as per the Private Utilities reference document for SECTION U called "CET SPECIFICATIONS AND SKETCHES", dated November 2010).
2. Each facility operator shall provide inspectors at the work site to inspect methods of interference work, verify quantities and items of Utility Work, and coordinate all phases of the facility operator operations.
3. In addition, the following statements are made to provide clarification of various paragraphs under Section U:
 - A. Section U, Paragraph 3, requires the Contractor to immediately commence negotiations with each Company for an Interference Agreement under which the Company will compensate the Contractor for any Interference Work which the Company does not elect to perform with its own forces or by specialty contractors retained by the Company. Thus the Contractor is on notice that its work under the Contract may be affected by Interference Work performed by (a) the Contractor pursuant to a separate Interference Agreement with the Company, (b) the Company, or (c) partly by each.

- B. The City has no contract with any of the Companies for work on or adjacent to the site of work under this Contract, and the Companies are not "Other Contractors" as defined for the purposes of this Contract. The Contractor is reminded, however, that pursuant to Section U, Paragraph 3, the City will not compensate the Contractor for any direct and/or indirect costs related to Interference Work, regardless of whether such Interference Work is covered by an Interference Agreement between the Contractor and the Company or is performed by the Company using its own forces or by specialty contractors retained by the Company.
- C. Section U, Paragraph 13, provides that the provisions of Section U are material provisions of the Contract and that the Contractor's failure to comply with the procedures set forth in Section U are sufficient for the Commissioner to declare the Contractor in default pursuant to Article 48 of the Contract.

Pursuant to this Section, the Contractor is informed that the Performance Bond required of the Contractor pursuant to the Contract is not deemed to guarantee performance of any of the Interference Work.

Section U: Additional Contract Requirements Applicable to Work Performed in the Presence of Privately Owned Utility Facilities

The Contractor is hereby notified that pursuant to the law and franchise agreements issued by the City, certain private utility and public service companies named in Schedule U-1 ("the Companies") own and/or operate surface and/or subsurface facilities within the limits of this contract. The existence of these facilities impacts the productivity of the City work called for in the contract. In order to improve coordination of the City construction with the private utility facilities owned and/or operated by the Companies named in Schedule U-1, Article 1.06.30 of the Standard Highway Specifications of the New York City Department of Transportation, Dated August 1, 2015; and/or Articles 10.15 through 10.18 of the Standard Sewer and Water Main Specifications of the New York City Department of Environmental Protection, Dated July 1, 2014; as applicable, are amended and will be implemented as follows:

1. Means and methods for City work:

- a) The Contractor is hereby notified that the utility interferences may impact the performance of, and/or interferes with, City work. The Contractor will be required to perform such utility work as directed by the Resident Engineer in order to clear all utility interferences from the project site as required for satisfactory completion of City work within specified contract schedule.
- b) In areas serviced by overhead lines on poles carrying electric, telecommunication and cable system, the Contractor understands and by bidding for this contract agrees that he/she will be required to perform the public work in the presence of energized electrical overhead lines and appurtenances located in areas adjacent and/or within the project area. As a consequence he/she will select means and method of construction appropriate to maintain the safety clearances required or as permitted by electric operators in order to avoid damaging the insulation or shielding of these lines and also to prevent knocking them down.

2. *Field inspection prior to construction:*

Prior to the start of any contract work in areas serviced by overhead electric lines, and after the award to the apparent low bidder for this contract, the Contractor must request a field walk of the project area along with the operator of the overhead electrical facilities and the DDC Engineer-In-Charge. At that time the facility operator will confirm the type and condition of the overhead electrical lines and the sufficiency of their insulating properties with respect to the means and methods proposed by the Contractor. The Contractor must be prepared to describe in enough details his/her proposed means and methods of construction operations in order to anticipate the likelihood that electric lines insulation would be cut or otherwise compromised. Also such details will allow the facility operator to anticipate the need for added insulation and/or shielding of non-insulated lines.

3. *Compensation for interference work:*

Compensation for Interference Work is a matter of adjustment between the Contractor and each private utility company located within the limits of the project area and whose utility facilities are affected by City contract work. In particular, the City will not compensate the Contractor for any direct and/or indirect costs related to Interference Work, including, but not limited to, delay, lost profit, increased overhead, or any other impact costs. Upon receipt of a Notice of Award from the City, the Contractor shall immediately commence negotiations with each of the Companies concerning the manner in which and the price for which the Contractor, through its own forces or by others hired by it, will perform and be paid by the Company for all necessary Interference Work as defined above, and at known locations of City contract work, that the Company(ies) choose(s) not to perform with its(their) own forces or by specialty contractors hired by it (them) (as per "Interference Agreement"). Specialty contractors' work is limited to (i) insulation installation and removal, (ii) live gas and steam work, (iii) cleanup and disposal of hazardous materials, (iv) splicing live electrical and telecommunications facilities, and (v) work not traditionally performed by general construction contractors.

4. Interference Agreement:

- a) Although the parties may negotiate an Interference Agreement in any format or manner they deem fit, the Contractor is hereby advised that the Companies have indicated to the City that they will agree to compensate the Contractor on a unit price basis for Types of Interferences encountered on this Contract in accordance to the Private Utilities reference document for SECTION U called "CET SPECIFICATIONS AND SKETCHES", dated November 2010, copy of which is available on demand.
- b) The Contractor shall notify the City upon concluding an Interference Agreement with each of the Companies.

5. City contract work to continue without Interference Agreement :

If, prior to the start of construction, as directed by the City's Order to work / Notice To Proceed (OTW/ NTP) date any of the Companies and the Contractor have not concluded an Interference Agreement as described above, then the City shall issue a written "48 Hours' notice to Public Corporation" as prescribed by the City of New York Administrative Code, commonly referred to as "Order-Outs" and City construction will proceed as ordered and the Contractor will be directed by the Resident Engineer (RE) to perform the City work on Time, Material and Equipment basis (T&M) as specified in standard City contract agreement Article 26.2. T&M records will include identification of types of utility facilities interfering with City work, utility facility owners, specifying the nature and quantity of any materials, plant and equipment furnished or used in connection with the performance of such work and crew size, such as: name and number of each worker employed on such work. T&M records will also indicate the hours of active time, standby time and idle time. The Company (ies) and the Contractor will maintain separate records of the actual quantity and cost of labor, materials, and equipment expended, and will provide copies of this information to the other party on a daily basis for reconciliation. These T&M records along with cost evaluations will be submitted daily to the Resident Engineer for review and approval. The total cost of City work will be based on quantity of work performed multiplied by unit price contract bid items. The total interference cost will be calculated as the difference between the total

T&M cost and total cost for City work. The Resident Engineer will conduct a monthly reconciliation session of the daily T&M records with the affected Company (ies) and the Contractor. If the Contractor and affected utility companies cannot reconcile their T&M records, by the last day of each month, then the Resident Engineer will submit the approved City's T&M records along with total cost evaluations to the DDC Director of Construction who will review these records and recommend approval and validity certification by the DDC Construction Assistant Commissioner.

- a) Copies of the DDC approved and certified T&M records will then be transmitted by the DDC to the Contractor and the utility companies. These certified records may be used by the Contractor for compensation claims against the responsible private facility owners, or may be used by any party as supporting documentation in dispute regarding compensation for performing Interference Work. The Contractor will be required to perform City work while invoices are submitted by the Contractor to the Utility companies for payment within 30 days, or while compensation disputes between the Contractor and affected company (ies) are submitted to Binding Arbitration process described in Paragraph 9.
- b) All issues related to utility work and/or delays due to compensation disputes or claims against utility companies are not allowable as justification for granting contract time extensions or delay claims against the City. The City may assess liquidated damages specified in the contract for net overall delays suffered by City contract work as a result of utility issues, disputes and claims.
- c) The standard City contract dispute resolution process specified in Article 27 "Presentation of disputes to Commissioner", of the standard City contract agreement is not applicable to any disputes related to utility work and/or compensation for such work or claim against utility companies. Utility work issues, disputes and claims may only be submitted to Binding Arbitration process described in Paragraph 9.
- d) The Contractor will notify the Resident Engineer when utility work that require the intervention of company utility specialty crews causes excessive contractor's labor and equipment standby or idleness and, thereby jeopardizing the City project

schedule. The Resident Engineer will submit the facts to the DDC Director of Construction who will recommend to the DDC Deputy Commissioner regarding the issuance of a "48 Hours' notice to Public Corporation" to the concerned utility company as authorized by the New York City Administrative Code Section 19-143 and/or Section 24-521 as applicable.

- e) Utility delays caused by utility and/or by unavailability of utility specialty crews cannot be discounted for earning any contractual bonus when such bonus clause is included in a contract. However, if such specified bonus is not earned or is disallowed by the City or if the City assesses specified liquidated damages as a result of such excessive delays, the Contractor may seek damages from the responsible utility company (ies).

6. *Extra utility work with Interference Agreement:*

If during construction the Contractor encounters utility facilities interferences or utility scope of work that it believes is not covered by the Interference Agreement as described above, then the Contractor shall immediately notify the Company in writing, with a copy to the City, describing the nature and location of the extra work in question. The Company then has five (5) business days to investigate the conditions and then:

- a) Advise the Contractor and the City in writing that no interference with its facilities exists at the location in question, and hence that the Contractor may proceed with City work without providing for any impact from Company facilities;
- b) Advise the Contractor and the City in writing that the Interference Agreement negotiated pursuant to Paragraph 4, provides for the scope of work encountered.
- c) Advise the Contractor and the City in writing that it intends to perform the necessary utility Work with company forces or with its own contractor including, but not limited to, relocating its facility out of the way of the proposed City work. In this case, the Company shall provide a written schedule for the performance of the utility work it proposes to perform, which shall be subject to approval by

the City based on its impact to the Contractor's currently approved progress schedule. Upon approval of the Company's schedule by the City, the Contractor shall provide access to the worksite to the Company and/or any contractors hired by it to perform this utility work. If necessary, the City may grant a contract time extension for delays caused by the performance of such utility work by the company.

- d) Reasonably specify in writing the scope of work to be performed by the Contractor on behalf of the Company that is not covered under the Interference Agreement negotiated pursuant to Paragraph 5, including, but not limited to, relocating, supporting, and/or protecting the Company's facilities, and/or shifting the City facility if approved by the Resident Engineer, and/or otherwise changing its operations to work in the presence of the Company's facilities. Should the Company elect this option, it must adequately define and provide an initial price offer for the work required to be performed.

7. *Means and Methods for utility work:*

Upon receipt of the Company's determination pursuant to Paragraphs 6.b, or 6.d, above, the Contractor shall determine reasonable means and methods of performing the work defined by the Company. These means and methods are subject to approval of the Company, which shall not be unreasonably withheld. If, however, the Company objects to the Contractor's proposed means and methods then it shall define an alternate method of construction. Upon receipt of the Company's approval or its proposed alternate method of construction, the Contractor shall commence performance of the work defined by the Company as soon as possible, and shall perform the work in a good, workmanlike, and efficient manner, using the means and methods approved by the Company, in order to permit the City work to proceed in the most expeditious manner possible, but without imposing unreasonable and/or unnecessary costs on the Company. It is expressly understood by all parties that the City's rights pursuant to Article 4 of the Contract apply to Utility Work performed pursuant to this Section.

8. Disputed utility work covered by an interference agreement:

The City Work will continue as described in Paragraph 5 above. In the event of any dispute between the Company (ies) and the Contractor regarding any issue related to the performance of, or payment for, utility work, including, but not limited to, any indirect or impact costs incurred by the Contractor due to the Utility Work and/or to the existence of facilities owned or operated by the Company (ies) on the line of the work. The Company (ies) and the Contractor hereby agree to submit to each other a "Final Offer," in writing, by certified mail. Each party shall then have three business days to consider each other's Final Offer. In the event that neither party accepts the other's Final Offer within those three days, the Company (ies) and the Contractor agree to immediately submit the dispute to binding arbitration as described in Paragraph 9. During the pendency of any arbitration, the Company (ies) and the Contractor shall maintain separate records of the actual quantity and cost of labor, materials, and equipment expended, and to provide copies of this information to the other party on a daily basis for reconciliation. Any and all disagreement with the records maintained and provided by the other, must be documented in writing to all parties. However, these records are solely for the benefit of presentation to the arbitrator, whose decision may not necessarily be based on these records and in any event is final. Both parties should be aware that the City will not confirm or deny the accuracy of any records that is not certified by DDC.. While the arbitration is pending, the Company shall pay the Contractor on a monthly basis, based on the price offered by the Company to the Contractor for the performance of the work.

9. Arbitration of utility work:

The arbitration of the issues described above shall be conducted pursuant to the Construction Industry Arbitration Rules of the American Arbitration Association (hereinafter "the Rules" and "AAA") in effect on the date the arbitration is initiated except as set forth herein. The arbitration award shall be final and binding upon the parties to the arbitration and judgment upon the award may be entered in a court having jurisdiction.

- (a) Once an arbitrator(s) has been appointed by the AAA, the arbitration shall be scheduled as promptly as possible given the arbitrator(s) and the parties' schedules.
- (b) No later than seven days prior to the first arbitration hearing, Company and the Contractor shall submit to the arbitrator(s), and to each other, a summary of each party's respective position and such other information as is deemed appropriate, along with a copy of each party's Final Offer as specified in Paragraph 8.
- (c) The arbitration shall be conducted and concluded in two days.
- (d) On the morning of the first day of the arbitration, the Contractor and/or representatives shall have 3 ½ hours to make a presentation of its claim to the arbitrator. During its presentation, the Contractor shall not be permitted to produce any documents or cost records which have not already been provided to the Company. The Contractor shall be permitted to produce any analysis or description of its claim which has been prepared for the purpose of its presentation.
- (e) Company and/or its representatives shall have two hours to ask the Contractor questions about its claim and its presentation. Thereafter the arbitrator(s) shall have two hours to ask the Contractor questions about its claim and its presentation.
- (f) On the morning of the second day of the arbitration, Company and/or its representatives shall have 3 ½ hours to make a presentation of its claim to the arbitrator. During its presentation, the Company shall not be permitted to produce any documents or cost records which have not already been provided to the Contractor. The Company shall be permitted to produce any analysis or description of its claim which has been prepared for the purpose of its presentation.
- (g) The Contractor and/or its representatives shall have two hours to ask Company questions about its claim and its presentation. Thereafter the arbitrator(s) shall have two hours to ask Company questions about its claim and its presentation.
- (h) Subject to the above time limitations, the arbitrator(s) may conduct the arbitration in such manner as the arbitrator(s) deems reasonable.

- (i) The arbitrator(s) shall then have one week to select in writing, as the arbitrator ('s) award, that party's Final Offer which appears to be more reasonable, based on the presentations at the arbitration hearings.
- (j) The arbitrator shall have no discretion to grant an award other than one of the two Final Offers submitted by the parties.
- (k) Any award for work that has already been performed shall be paid on the 7th day after receipt of the arbitrator's decision, or on the 30th day after completion of the work, whichever is later. Payment for work not yet completed at the time of the arbitrator's decision shall be paid within 30 days of completion of work. Interest shall accrue from the date payment is due at the rate of 9% per annum. Either party may cause judgment to be entered in accordance with the arbitrator(s) decision in a court in the State of New York, County of New York.
- (l) The arbitrator's fees and any other costs of the arbitration shall be initially shared equally by Company and the Contractor. The non-prevailing party shall then pay all arbitrator's fees and costs of the arbitration and shall reimburse the prevailing party for its share of such fees and costs theretofore paid.
- (m) The parties may, at any time, settle any matter submitted to arbitration.

10. Order-out waiver:

The Contractor and all subcontractors hired by it, if an Interference Agreement is executed as specified between the concerned parties, agree to waive any rights they may have, if any, under law, contract or otherwise to compel the City to assert any right the City may have, including the issuance of any directives required under the New York City Administrative Code, Section 19-143 and Section 24-521, to require any or all of the Companies to maintain, repair, replace, protect, support, shift, alter, relocate, and/or remove utility facilities in connection with the work to be performed under this contract. However, nothing in this Section shall preclude the City from exercising its rights under the Law to issue such a directive to the Company.

11. Cost of insurance:

Each of the named Companies, at their option and if an Interference Agreement is executed as specified between the concerned parties, may be named as an additional insured on all insurance policies required to be maintained under this contract. In the event that a Company opts to be so named as an additional insured, the actual incremental cost, if any, to the Contractor of providing such insurance coverage shall be borne by that Company. The Contractor shall provide a written statement from its insurance provider documenting the actual cost of this added coverage to the Company. Under no circumstances shall the cost of insurance coverage on behalf of any Company be borne by the City. Nothing in this paragraph shall be interpreted to imply the City's acceptance of any additional responsibility or liability for any matter related to the performance of Utility Work. In particular, the Company and the Contractor bear joint and full responsibility to ensure that any Utility Work performed by the Contractor is in compliance with all applicable government and Company regulations.

12. Cost of utility interference work:

The Companies, by virtue of a prior agreement with the City, have agreed to perform their obligations described in this section. It is expressly understood that the cost of Utility Work or any delays cost caused by such utility work shall not be a charge against the City, but shall be a matter for adjustment between the Contractor and the Company or Companies concerned. The City and the Contractor agree that the Companies are third party beneficiaries of this Section of the contract, if an Interference Agreement is executed between the Contractor and utility company (ies). The provisions of this Section shall govern in all cases where Company property interferes with or is about to be disturbed by the City work, notwithstanding any other provision of the Contract, except for Natural Gas transmission/distribution facilities covered subject to the Gas Facility Cost Allocation Act (GFCAA) and covered separately in this contract.

13. Default declaration:

The Contractor agrees that the provisions of this Section are material provisions of the contract, and that the Contractor's failure to comply with the procedures set forth above are sufficient for the Commissioner to declare the Contractor in default pursuant to Article 48 of the Contract.

14. NYS Labor Law:

The Contractor is hereby advised that New York State Labor Law and/or, Davis-Bacon Act if federally funded, applies to public work. The work described in this Section U of the contract performed by utility company (ies) with their own forces or vendors hired by such company (ies) is not public work.

15. Facility operators:

The insurance requirements in Paragraph 11 of this Section U apply to: (i) additional Companies, if any, who were not named in Schedule "A" but which have executed an Interference Agreement with the Contractor for utility work; and (ii) additional coverage, if any, paid for by Utility Companies whose utility facilities are located within the project limits, that they may require for the utility work pursuant to an Interference Agreement between the Contractor and such utility company (ies).

[End]

"STANDARD UTILITY LETTER OF AGREEMENT"

(Name)
Deputy Commissioner, Infrastructure Division
Department of Design and Construction
30-30 Thomson Avenue
Long Island City, NY 11101

RE: City Work Performed in the Presence of Private Utility Facilities
Project No: _____

Dear (Name):

This letter is to certify that _____, has requested the inclusion of the attached "Section U: Additional contract requirements applying to work performed in the presence of privately owned utility." The company agrees to abide by the terms of this Section U at the company's own expenses due to their facilities interferences with the Public work.

Sincerely,

By: Authorized Company Representative

Title

NOTARY PUBLIC

CERTIFIED AS TO FORM
AND LEGAL AUTHORITY:

By: _____

SCHEDULE U-1

LISTING OF COMPANIES NAMED FOR THIS CONTRACT

<u>COMPANY NAME</u>	<u>CONTACT NAME</u>	<u>CONTACT TELEPHONE</u>
CON EDISON	THERESA KONG	212-460-4834
NATIONAL GRID	NAVILLE JACOBS	718-963-5612

SCHEDULE U-3

(NO TEXT IN THIS SECTION)



**INFRASTRUCTURE DIVISION
BUREAU OF DESIGN**

VOLUME 1 OF 3

PROJECT ID: HWPLZ011K

RECONSTRUCTION OF ZION PLAZA

**INCLUDING CURB AND SIDEWALK RECONSTRUCTION, STREET LIGHTING, TRAFFIC
SIGNALS, AND BIOSWALE WORK**

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

Contractor.

Dated _____, 20____



**Department of
Design and
Construction**

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

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

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: HWPLZ011K

RECONSTRUCTION OF ZION PLAZA

**INCLUDING CURB AND SIDEWALK RECONSTRUCTION, STREET
LIGHTING, TRAFFIC SIGNALS, AND BIOSWALE WORK**

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

FOR THE DEPARTMENT OF TRANSPORTATION
PREPARED BY

PARSONS

JANUARY 14, 2016



17-016



**Department of
Design and
Construction**

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

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

VOLUME 2 OF 3

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

FOR FURNISHING ALL LABOR AND MATERIALS NECESSARY AND REQUIR

PROJECT ID:



FOR THE DEPARTMENT OF TRANSPORTATION
PREPARED BY

July 1, 2015

HIRING AND EMPLOYMENT RIDER:
HIRENYC AND REPORTING REQUIREMENTS

Introduction

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

HireNYC Requirements

A. Enrollment

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

B. Job Posting Requirements

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

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

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

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

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

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

C. Breach and Liquidated Damages

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

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

Audit Compliance

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

Other Reporting Requirements

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

Construction Requirements

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

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

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

Federal Hiring Requirements

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

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

(NO TEXT ON THIS PAGE)

PAID SICK LEAVE LAW CONTRACT RIDER

Introduction and General Provisions

The Earned Sick Time Act, also known as the Paid Sick Leave Law ("PSLL"), requires covered employees who annually perform more than 80 hours of work in New York City to be provided with paid sick time.¹ Contractors of the City of New York or of other governmental entities may be required to provide sick time pursuant to the PSLL.

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

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

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

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

Pursuant to the PSLL and the Rules:

Applicability, Accrual, and Use

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

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

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

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

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

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

An employer must not require an employee, as a condition of taking sick time, to search for a replacement. However, an employer may require an employee to provide: reasonable notice of the need to use sick time; reasonable documentation that the use of sick time was needed for a reason above if for an absence of more than three consecutive work days; and/or written confirmation that an employee used sick time pursuant to the PSSL. 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 PSSL must be treated by the employer as confidential.

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

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

Exemptions and Exceptions

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

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

Retaliation Prohibited

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

Notice of Rights

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

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

Records

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

Enforcement and Penalties

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

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

More Generous Policies and Other Legal Requirements

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

**NEW YORK CITY STANDARD CONSTRUCTION CONTRACT (DEC. 2013)
INSURANCE RIDER**

[Instructions to Agencies: Please attach this Insurance Rider to the December 2013 version of the New York City Standard Construction Contract. This rider shall not be used with subsequent versions of the New York City Standard Construction Contract.]

The following provisions supersede the corresponding provisions in the December 2013 version of the New York City Standard Construction Contract:

1. Section 22.1.1(c) provides as follows:

22.1.1(c) If the Work requires a permit from the Department of Buildings pursuant to 1 RCNY Section 101-08, the Contractor shall provide Commercial General Liability Insurance with limits of at least those required by 1 RCNY section 101-08 or greater limits provided by the Agency in Schedule A. If the Work does not require such a permit, the minimum limits shall be those provided for in Schedule A.

2. Section 22.3.3 provides as follows:

22.3.3 For policies provided pursuant to all of Article 22.1 other than Article 22.1.2, the Contractor shall submit one or more Certificates of Insurance on forms acceptable to the Commissioner. All such Certificates of Insurance shall certify (a) the issuance and effectiveness of such policies of insurance, each with the specified minimum limits (b) for insurance secured pursuant to Article 22.1.1 that the City and any other entity specified in Schedule A is an Additional Insured thereunder; (c) in the event insurance is required pursuant to Article 22.1.6 and/or Article 22.1.7, that the City is an Additional Insured thereunder; and (d) the company code issued to the insurance company by the National Association of Insurance Commissioners (the NAIC number). All such Certificates of Insurance shall be accompanied by the required additional insured endorsements and either a duly executed "Certification by Insurance Broker or Agent" in the form contained in Part III of Schedule A or copies of all policies referenced in such Certificate of Insurance as certified by an authorized representative of the issuing insurance carrier. If any policy is not available at the time of submission, certified binders may be submitted until such time as the policy is available, at which time a certified copy of the policy shall be submitted.

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NOTICE TO BIDDERS

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

Significant changes include the following:

ARTICLE 11 DAMAGES CAUSED BY DELAYS

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

ARTICLE 22 INSURANCE

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

ARTICLE 26 EXTRA WORK

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

ARTICLE 37 LABOR LAW REQUIREMENTS

ARTICLE 38 PAYROLL REPORTS

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

ARTICLE 70 ELECTRONIC FILING

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

Other significant changes include the following:

ARTICLE 7 INDEMNIFICATION

Changes have been made to the indemnification provisions.

ARTICLE 14 FINAL ACCEPTANCE OF WORK

ARTICLE 44 SUBSTANTIAL COMPLETION PAYMENT

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

ARTICLE 15 LIQUIDATED DAMAGES

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

ARTICLE 17 SUBCONTRACTS

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

ARTICLE 19 SECURITY DEPOSIT

The provisions governing the return of bid deposits are clarified.

ARTICLE 20 PAYMENT GUARANTEE

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

ARTICLE 28 RECORDKEEPING FOR EXTRA OR DISPUTED WORK

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

ARTICLE 35 EMPLOYEES

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

ARTICLE 38 PAYROLL REPORTS
ARTICLE 77 RECORDS RETENTION

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

ARTICLE 42 PARTIAL PAYMENTS

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

ARTICLE 62 TAX EXEMPTION

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

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CITY OF NEW YORK

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

INFORMATION FOR BIDDERS

JUNE 2015

(NO TEXT ON THIS PAGE)

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

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INFORMATION FOR BIDDERS

1. Description and Location of Work

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

2. Time and Place for Receipt of Bids

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

3. Definitions

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

4. Invitation For Bids and Contract Documents

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

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

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

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

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

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

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

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

5. Pre-Bid Conference

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

6. Agency Contact

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

7. Bidder's Oath

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

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

8. Examination and Viewing of Site

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

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

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

9. Examination of Proposed Contract

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

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

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

10. Form of Bid

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

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

11. Irrevocability of Bid

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

12. Acknowledgment of Amendments

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

13. Bid Samples and Descriptive Literature

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

14. Proprietary Information/Trade Secrets

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

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

15. Pre-Opening Modification or Withdrawal of Bids

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

16. Bid Evaluation and Award

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

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

17. Late Bids, Late Withdrawals and Late Modifications

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

18. Withdrawal of Bids.

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

19. Mistake in Bids

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

(B) Mistakes Discovered Before Award

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

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

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

therein is strictly prohibited.

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

20. Low Tie Bids

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

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

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

21. Rejection of Bids

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

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

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

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

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

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

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

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

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

23. Affirmative Action and Equal Employment Opportunity

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

24. VENDEX Questionnaires

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

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

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

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

25. Complaints About the Bid Process

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

26. Bid, Performance and Payment Security

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

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

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

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

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

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

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

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

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

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

27. Failure to Execute Contract

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

28. Bidder Responsibilities and Qualifications

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

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

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

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

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

29. Employment Report

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

30. Labor Law Requirements

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

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

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

31. Insurance

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

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

32. Lump Sum Contracts

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

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

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

33. Unit Price Contracts

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

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

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

34. Excise Tax

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

35. Licenses and Permits

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

36. Multiple Prime Contractors

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

37. Locally Based Enterprise Requirements (LBE)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

38. Bid Submission Requirements

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

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

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

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

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

39. Comptroller's Certificate

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

40. Procurement Policy Board Rules

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

41. DDC Safety Requirements

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

CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
SAFETY REQUIREMENTS

June 2015

THE DDC SAFETY REQUIREMENTS INCLUDE THE FOLLOWING SECTIONS:

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

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

I. POLICY ON SITE SAFETY

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

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

II. PURPOSE

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

III. DEFINITIONS

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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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
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- 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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DECEMBER 2013

(NO TEXT ON THIS PAGE)

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WITNESSETH:

The parties, in consideration of the mutual agreements contained herein, agree as follows:

**CHAPTER I
THE CONTRACT AND DEFINITIONS**

ARTICLE 1. THE CONTRACT

1.1 Except for titles, subtitles, headings, running headlines, tables of contents and indices (all of which are printed herein merely for convenience), the following, except for such portions thereof as may be specifically excluded, shall be deemed to be part of this Contract:

1.1.1 All provisions required by law to be inserted in this Contract, whether actually inserted or not;

1.1.2 The Contract Drawings and Specifications;

1.1.3 The General Conditions and Special Conditions, if any;

1.1.4 The Contract;

1.1.5 The Information for Bidders; Request for Proposals; Notice of Solicitation and Proposal For Bids; Bid or Proposal, and, if used, the Bid Booklet;

1.1.6 All Addenda issued prior to the receipt of the bids; the Notice of Award; Performance and Payment Bonds, if required; and the Notice to Proceed or the Order to Work.

1.2 Should any conflict occur in or between the Drawings and Specifications, the Contractor shall be deemed to have estimated the most expensive way of doing the Work, unless the Contractor shall have asked for and obtained a decision in writing from the Commissioner of the Agency that is entering into this Contract, before the submission of its bid, as to what shall govern.

ARTICLE 2. DEFINITIONS

2.1 The following words and expressions, or pronouns used in their stead, shall, wherever they appear in this Contract, be construed as follows, unless a different meaning is clear from the context:

2.1.1 "**Addendum**" or "**Addenda**" shall mean the additional Contract provisions and/or technical clarifications issued in writing by the Commissioner prior to the receipt of bids.

2.1.2 "**Agency**" shall mean a city, county, borough or other office, position, department, division, bureau, board or commission, or a corporation, institution or agency of government, the expenses of which are paid in whole or in part from the City treasury.

2.1.3 "**Agency Chief Contracting Officer**" (**ACCO**) shall mean a person delegated authority by the Commissioner to organize and supervise the procurement activity of subordinate Agency staff in conjunction with the CCPO, or his/her duly authorized representative.

2.1.4 **"Allowance"** shall mean a sum of money which the Agency may include in the total amount of the Contract for such specific contingencies as the Agency believes may be necessary to complete the Work, *e.g.*, lead or asbestos remediation, and for which the Contractor will be paid on the basis of stipulated unit prices or a formula set forth in the Contract or negotiated between the parties provided, however, that if the Contractor is not directed to use the Allowance, the Contractor shall have no right to such money and it shall be deducted from the total amount of the Contract.

2.1.5 **"City"** shall mean the City of New York.

2.1.6 **"City Chief Procurement Officer" (CCPO)** shall mean a person delegated authority by the Mayor to coordinate and oversee the procurement activity of Mayoral agency staff, including the ACCO and any offices which have oversight responsibility for the procurement of construction, or his/her duly authorized representative.

2.1.7 **"Commissioner"** shall mean the head of the Agency that has entered into this Contract, or his/her duly authorized representative.

2.1.8 **"Comptroller"** shall mean the Comptroller of the City of New York.

2.1.9 **"Contract"** or **"Contract Documents"** shall mean each of the various parts of the contract referred to in Article 1 hereof, both as a whole and severally.

2.1.10 **"Contract Drawings"** shall mean only those drawings specifically entitled as such and listed in the Specifications or in any Addendum, or any drawings furnished by the Commissioner, pertaining or supplemental thereto.

2.1.11 **"Contract Work"** shall mean everything required to be furnished and done by the Contractor by any one or more of the parts of the Contract referred to in Article 1, except Extra Work as hereinafter defined.

2.1.12 **"Contractor"** shall mean the entity which executed this Contract, whether a corporation, firm, partnership, joint venture, individual, or any combination thereof, and its, their, his/her successors, personal representatives, executors, administrators, and assigns, and any person, firm, partnership, joint venture, individual, or corporation which shall at any time be substituted in the place of the Contractor under this Contract.

2.1.13 **"Days"** shall mean calendar days, except where otherwise specified.

2.1.14 **"Engineer"** or **"Architect"** or **"Project Manager"** shall mean the person so designated in writing by the Commissioner in the Notice to Proceed or the Order to Work to act as such in relation to this Contract, including a private Architect or Engineer or Project Manager, as the case may be. Subject to written approval by the Commissioner, the Engineer, Architect or Project Manager may designate an authorized representative.

2.1.15 **"Engineering Audit Officer" (EAO)** shall mean the person so designated by the Commissioner to perform responsible auditing functions hereunder.

2.1.16 **"Extra Work"** shall mean Work other than that required by the Contract at the time of award which is authorized by the Commissioner pursuant to Chapter VI of this Contract.

2.1.17 **"Federal-Aid Contract"** shall mean a contract in which the United States (federal) Government provides financial funding as so designated in the Information for Bidders.

2.1.18 **"Final Acceptance"** shall mean final written acceptance of all the Work by the Commissioner, a copy of which shall be sent to the Contractor.

2.1.19 **"Final Approved Punch List"** shall mean a list, approved pursuant to Article 14.2.2, specifying those items of Work to be completed by the Contractor after Substantial Completion and dates for the completion of each item of Work.

2.1.20 **"Law"** or **"Laws"** shall mean the Constitution of the State of New York, the New York City Charter, the New York City Administrative Code, a statute of the United States or of the State of New York, a local law of the City of New York, any ordinance, rule or regulation having the force of law, or common law.

2.1.21 **"Materialman"** shall mean any corporation, firm, partnership, joint venture, or individual, other than employees of the Contractor, who or which contracts with the Contractor or any Subcontractor, to fabricate or deliver, or who actually fabricates or delivers, plant, materials or equipment to be incorporated in the Work.

2.1.22 **"Means and Methods of Construction"** shall mean the labor, materials, temporary structures, tools, plant, and construction equipment, and the manner and time of their use, necessary to accomplish the result intended by this Contract.

2.1.23 **"Notice to Proceed"** or **"Order to Work"** shall mean the written notice issued by the Commissioner specifying the time for commencement of the Work and the Engineer, Architect or Project Manager.

2.1.24 **"Other Contractor(s)"** shall mean any contractor (other than the entity which executed this Contract or its Subcontractors) who or which has a contract with the City for work on or adjacent to the building or Site of the Work.

2.1.25 **"Payroll Taxes"** shall mean State Unemployment Insurance (SUI), Federal Unemployment Insurance (FUI), and payments pursuant to the Federal Insurance Contributions Act (FICA).

2.1.26 **"Project"** shall mean the public improvement to which this Contract relates.

2.1.27 **"Procurement Policy Board" (PPB)** shall mean the Agency of the City of New York whose function is to establish comprehensive and consistent procurement policies and rules which shall have broad application throughout the City.

2.1.28 **"Required Quantity"** in a unit price Contract shall mean the actual quantity of any item of Work or materials which is required to be performed or furnished in order to comply with the Contract.

2.1.29 **"Resident Engineer"** shall mean the representative of the Commissioner duly designated by the Commissioner to be his/her representative at the site of the Work.

2.1.30 **"Site"** shall mean the area upon or in which the Contractor's operations are carried on, and such other areas adjacent thereto as may be designated as such by the Engineer.

2.1.31 **"Small Tools"** shall mean items that are ordinarily required for a worker's job function, including but not limited to, equipment that ordinarily has no licensing, insurance

or substantive storage costs associated with it; such as circular and chain saws, impact drills, threaders, benders, wrenches, socket tools, etc.

2.1.32 "**Specifications**" shall mean all of the directions, requirements, and standards of performance applying to the Work as hereinafter detailed and designated under the Specifications.

2.1.33 "**Subcontractor**" shall mean any person, firm or corporation, other than employees of the Contractor, who or which contracts with the Contractor or with its subcontractors to furnish, or actually furnishes labor, or labor and materials, or labor and equipment, or superintendence, supervision and/or management at the Site. Wherever the word Subcontractor appears, it shall also mean sub-Subcontractor.

2.1.34 "**Substantial Completion**" shall mean the written determination by the Engineer that the Work required under this Contract is substantially, but not entirely, complete and the approval of the **Final Approved Punch List**.

2.1.35 "**Work**" shall mean all services required to complete the Project in accordance with the Contract Documents, including without limitation, labor, material, superintendence, management, administration, equipment, and incidentals, and obtaining any and all permits, certifications and licenses as may be necessary and required to complete the Work, and shall include both Contract Work and Extra Work.

CHAPTER II THE WORK AND ITS PERFORMANCE

ARTICLE 3. CHARACTER OF THE WORK

3.1 Unless otherwise expressly provided in the **Contract Drawings, Specifications, and Addenda**, the **Work** shall be performed in accordance with the best modern practice, utilizing, unless otherwise specified in writing, new and unused materials of standard first grade quality and workmanship and design of the highest quality, to the satisfaction of the **Commissioner**.

ARTICLE 4. MEANS AND METHODS OF CONSTRUCTION

4.1 Unless otherwise expressly provided in the **Contract Drawings, Specifications, and Addenda**, the **Means and Methods of Construction** shall be such as the **Contractor** may choose; subject, however, to the **Engineer's** right to reject the **Means and Methods of Construction** proposed by the **Contractor** which in the opinion of the **Engineer**:

- 4.1.1 Will constitute or create a hazard to the **Work**, or to persons or property; or
- 4.1.2 Will not produce finished **Work** in accordance with the terms of the **Contract**; or
- 4.1.3 Will be detrimental to the overall progress of the **Project**.

4.2 The **Engineer's** approval of the **Contractor's Means and Methods of Construction**, or his/her failure to exercise his/her right to reject such means or methods, shall not relieve the **Contractor** of its obligation to complete the **Work** as provided in this **Contract**; nor shall the exercise of such right to reject create a cause of action for damages.

ARTICLE 5. COMPLIANCE WITH LAWS

5.1 The **Contractor** shall comply with all **Laws** applicable to this **Contract** and to the **Work** to be done hereunder.

5.2 Procurement Policy Board Rules: This **Contract** is subject to the Rules of the **PPB** ("**PPB** Rules") in effect at the time of the bid opening for this **Contract**. In the event of a conflict between the **PPB** Rules and a provision of this **Contract**, the **PPB** Rules shall take precedence.

5.3 Noise Control Code provisions.

5.3.1 In accordance with the provisions of Section 24-216(b) of the Administrative Code of the **City** ("Administrative Code"), Noise Abatement Contract Compliance, devices and activities which will be operated, conducted, constructed or manufactured pursuant to this **Contract** and which are subject to the provisions of the **City** Noise Control Code shall be operated, conducted, constructed, or manufactured without causing a violation of the Administrative Code. Such devices and activities shall incorporate advances in the art of noise control development for the kind and level of noise emitted or produced by such devices and activities, in accordance with regulations issued by the **Commissioner** of the **City** Department of Environmental Protection.

5.3.2 The **Contractor** agrees to comply with Section 24-219 of the Administrative Code and implementing rules codified at 15 Rules of the City of New York ("**RCNY**") Section 28-100 *et seq.* In accordance with such provisions, the **Contractor**, if the **Contractor** is the responsible party under such regulations, shall prepare and post a Construction Noise Mitigation Plan at each **Site**, in which the **Contractor** shall certify that all construction tools and equipment have been maintained so that they operate at normal manufacturers operating specifications. If the **Contractor** cannot make this certification, it must have in place an Alternative Noise Mitigation Plan approved by the **City** Department of Environmental Protection. In addition, the **Contractor's** certified Construction Noise Mitigation Plan is subject inspection by the **City** Department of Environmental Protection in accordance with Section 28-101 of Title 15 of **RCNY**. No **Contract Work** may take place at a **Site** unless there is a Construction Noise Mitigation Plan or approved Alternative Noise Mitigation Plan in place. In addition, the **Contractor** shall create and implement a noise mitigation training program. Failure to comply with these requirements may result in fines and other penalties pursuant to the applicable provisions of the Administrative Code and **RCNY**.

5.4 Ultra Low Sulfur Diesel Fuel: In accordance with the provisions of Section 24-163.3 of the Administrative Code, the **Contractor** specifically agrees as follows:

5.4.1 Definitions. For purposes of this Article 5.4, the following definitions apply:

5.4.1(a) "Contractor" means any person or entity that enters into a Public Works Contract with a **City Agency**, or any person or entity that enters into an agreement with such person or entity, to perform work or provide labor or services related to such Public Works Contract.

5.4.1(b) "Motor Vehicle" means any self-propelled vehicle designed for transporting persons or property on a street or highway.

5.4.1(c) "Nonroad Engine" means an internal combustion engine (including the fuel system) that is not used in a Motor Vehicle or a vehicle used solely for competition, or that is not subject to standards promulgated under Section 7411 or Section 7521 of

Title 42 of the United States Code, except that this term shall apply to internal combustion engines used to power generators, compressors or similar equipment used in any construction program or project.

5.4.1(d) "Nonroad Vehicle" means a vehicle that is powered by a Nonroad Engine, fifty (50) horsepower and greater, and that is not a Motor Vehicle or a vehicle used solely for competition, which shall include, but not be limited to, excavators, backhoes, cranes, compressors, generators, bulldozers, and similar equipment, except that this term shall not apply to horticultural maintenance vehicles used for landscaping purposes that are powered by a Nonroad Engine of sixty-five (65) horsepower or less and that are not used in any construction program or project.

5.4.1(e) "Public Works Contract" means a contract with a **City Agency** for a construction program or project involving the construction, demolition, restoration, rehabilitation, repair, renovation, or abatement of any building, structure, tunnel, excavation, roadway, park or bridge; a contract with a **City Agency** for the preparation for any construction program or project involving the construction, demolition, restoration, rehabilitation, repair, renovation, or abatement of any building, structure, tunnel, excavation, roadway, park or bridge; or a contract with a **City Agency** for any final work involved in the completion of any construction program or project involving the construction, demolition, restoration, rehabilitation, repair, renovation, or abatement of any building, structure, tunnel, excavation, roadway, park or bridge.

5.4.1(f) "Ultra Low Sulfur Diesel Fuel" means diesel fuel that has a sulfur content of no more than fifteen parts per million (15 ppm).

5.4.2 Ultra Low Sulfur Diesel Fuel

5.4.2(a) All **Contractors** shall use Ultra Low Sulfur Diesel Fuel in diesel-powered Nonroad Vehicles in the performance of this **Contract**.

5.4.2(b) Notwithstanding the requirements of Article 5.4.2(a), **Contractors** may use diesel fuel that has a sulfur content of no more than thirty parts per million (30 ppm) to fulfill the requirements of this Article 5.4.2, where the Commissioner of the **City Department of Environmental Protection** ("DEP Commissioner") has issued a determination that a sufficient quantity of Ultra Low Sulfur Diesel Fuel is not available to meet the needs of **Agencies** and **Contractors**. Any such determination shall expire after six (6) months unless renewed.

5.4.2(c) **Contractors** shall not be required to comply with this Article 5.4.2 where the **City Agency** letting this **Contract** makes a written finding, which is approved, in writing, by the DEP Commissioner, that a sufficient quantity of Ultra Low Sulfur Diesel Fuel, or diesel fuel that has a sulfur content of no more than thirty parts per million (30 ppm) is not available to meet the requirements of Section 24-163.3 of the Administrative Code, provided that such **Contractor** in its fulfillment of the requirements of this **Contract**, to the extent practicable, shall use whatever quantity of Ultra Low Sulfur Diesel Fuel or diesel fuel that has a sulfur content of no more than thirty parts per million (30 ppm) is available. Any finding made pursuant to this Article 5.4.2(c) shall expire after sixty (60) **Days**, at which time the requirements of this Article 5.4.2 shall be in full force and effect unless the **City Agency** renews the finding in writing and such renewal is approved by the DEP Commissioner.

5.4.2(d) **Contractors** may check on determinations and approvals issued by the DEP Commissioner pursuant to Section 24-163.3 of the Administrative Code, if any, at www.dep.nyc.gov or by contacting the **City Agency** letting this **Contract**.

5.4.2(e) The requirements of this Article 5.4.2 do not apply where they are precluded by federal or State funding requirements or where the **Contract** is an emergency procurement.

5.4.3 Best Available Technology

5.4.3(a) All **Contractors** shall utilize the best available technology for reducing the emission of pollutants for diesel-powered Nonroad Vehicles in the performance of this **Contract**. For determinations of best available technology for each type of diesel-powered Nonroad Vehicle, **Contractors** shall comply with the regulations of the City Department of Environmental Protection, as and when adopted, Chapter 14 of Title 15 of the Rules of the City of New York (RCNY). The **Contractor** shall fully document all steps in the best available technology selection process and shall furnish such documentation to the **City Agency** or the DEP Commissioner upon request. The **Contractor** shall retain all documentation generated in the best available technology selection process for as long as the selected best available technology is in use.

5.4.3(b) No **Contractor** shall be required to replace best available technology for reducing the emission of pollutants or other authorized technology utilized for a diesel-powered Nonroad Vehicle in accordance with the provisions of this Article 5.4.3 within three (3) years of having first utilized such technology for such vehicle.

5.4.3(c) This Article 5.4.3 shall not apply to any vehicle used to satisfy the requirements of a specific Public Works Contract for fewer than twenty (20) **Days**.

5.4.3(d) The **Contractor** shall not be required to comply with this Article 5.4.3 with respect to a diesel-powered Nonroad Vehicle under the following circumstances:

5.4.3(d)(i) Where the **City Agency** makes a written finding, which is approved, in writing, by the DEP Commissioner, that the best available technology for reducing the emission of pollutants as required by this Article 5.4.3 is unavailable for such vehicle, the **Contractor** shall use whatever technology for reducing the emission of pollutants, if any, is available and appropriate for such vehicle.

5.4.3(d)(ii) Where the DEP Commissioner has issued a written waiver based upon the **Contractor** having demonstrated to the DEP Commissioner that the use of the best available technology for reducing the emission of pollutants might endanger the operator of such vehicle or those working near such vehicle, due to engine malfunction, the **Contractor** shall use whatever technology for reducing the emission of pollutants, if any, is available and appropriate for such vehicle, which would not endanger the operator of such vehicle or those working near such vehicle.

5.4.3(d)(iii) In determining which technology to use for the purposes of Articles 5.4.3(d)(i) and 5.4.3(d)(ii) above, the **Contractor** shall primarily consider the reduction in emissions of particulate matter and secondarily consider the reduction in emissions of nitrogen oxides associated with the use of such

technology, which shall in no event result in an increase in the emissions of either such pollutant.

5.4.3(d)(iv) The **Contractor** shall submit requests for a finding or a waiver pursuant to this Article 5.4.3(d) in writing to the DEP Commissioner, with a copy to the **ACCO** of the **City Agency** letting this **Contract**. Any finding or waiver made or issued pursuant to Articles 5.4.3(d)(i) and 5.4.3(d)(ii) above shall expire after one hundred eighty (180) **Days**, at which time the requirements of Article 5.4.3(a) shall be in full force and effect unless the **City Agency** renews the finding, in writing, and the DEP Commissioner approves such finding, in writing, or the DEP Commissioner renews the waiver, in writing.

5.4.3(e) The requirements of this Article 5.4.3 do not apply where they are precluded by federal or State funding requirements or where the **Contract** is an emergency procurement.

5.4.4 Section 24-163 of the Administrative Code. The **Contractor** shall comply with Section 24-163 of the Administrative Code related to the idling of the engines of motor vehicles while parking.

5.4.5 Compliance

5.4.5(a) The **Contractor's** compliance with Article 5.4 may be independently monitored. If it is determined that the **Contractor** has failed to comply with any provision of Article 5.4, any costs associated with any independent monitoring incurred by the **City** shall be reimbursed by the **Contractor**.

5.4.5(b) Any **Contractor** who violates any provision of Article 5.4, except as provided in Article 5.4.5(c) below, shall be liable for a civil penalty between the amounts of one thousand (\$1,000) and ten thousand (\$10,000) dollars, in addition to twice the amount of money saved by such **Contractor** for failure to comply with Article 5.4.

5.4.5(c) No **Contractor** shall make a false claim with respect to the provisions of Article 5.4 to a **City Agency**. Where a **Contractor** has been found to have done so, such **Contractor** shall be liable for a civil penalty of twenty thousand (\$20,000) dollars, in addition to twice the amount of money saved by such **Contractor** in association with having made such false claim.

5.4.6 Reporting

5.4.6(a) For all Public Works Contracts covered by this Article 5.4, the **Contractor** shall report to the **City Agency** the following information:

5.4.6(a)(i) The total number of diesel-powered Nonroad Vehicles used to fulfill the requirements of this Public Works Contract;

5.4.6(a)(ii) The number of such Nonroad Vehicles that were powered by Ultra Low Sulfur Diesel Fuel;

5.4.6(a)(iii) The number of such Nonroad Vehicles that utilized the best available technology for reducing the emission of pollutants, including a breakdown by vehicle model and the type of technology;

5.4.6(a)(iv) The number of such Nonroad Vehicles that utilized such other authorized technology in accordance with Article 5.4.3, including a breakdown by vehicle model and the type of technology used for each such vehicle;

5.4.6(a)(v) The locations where such Nonroad Vehicles were used; and

5.4.6(a)(vi) Where a determination is in effect pursuant to Article 5.4.2(b) or 5.4.2(c), detailed information concerning the **Contractor's** efforts to obtain Ultra Low Sulfur Diesel Fuel or diesel fuel that has a sulfur content of no more than thirty parts per million (30 ppm).

5.4.6(b) The **Contractor** shall submit the information required by Article 5.4.6(a) at the completion of **Work** under the Public Works Contract and on a yearly basis no later than August 1 throughout the term of the Public Works Contract. The yearly report shall cover **Work** performed during the preceding fiscal year (July 1 - June 30).

5.5 Ultra Low Sulfur Diesel Fuel. In accordance with the Coordinated Construction Act for Lower Manhattan, as amended:

5.5.1 Definitions. For purposes of this Article 5.5, the following definitions apply:

5.5.1(a) "Lower Manhattan" means the area to the south of and within the following lines: a line beginning at a point where the United States pierhead line in the Hudson River as it exists now or may be extended would intersect with the southerly line of West Houston Street in the Borough of Manhattan extended, thence easterly along the southerly side of West Houston Street to the southerly side of Houston Street, thence easterly along the southerly side of Houston Street to the southerly side of East Houston Street, thence northeasterly along the southerly side of East Houston Street to the point where it would intersect with the United States pierhead line in the East River as it exists now or may be extended, including tax lots within or immediately adjacent thereto.

5.5.1(b) "Lower Manhattan Redevelopment Project" means any project in Lower Manhattan that is funded in whole or in part with federal or State funding, or any project intended to improve transportation between Lower Manhattan and the two air terminals in the City known as LaGuardia Airport and John F. Kennedy International Airport, or between Lower Manhattan and the air terminal in Newark known as Newark Liberty International Airport, and that is funded in whole or in part with federal funding.

5.5.1(c) "Nonroad Engine" means an internal combustion engine (including the fuel system) that is not used in a Motor Vehicle or a vehicle used solely for competition, or that is not subject to standards promulgated under Section 7411 or Section 7521 of Title 42 of the United States Code, except that this term shall apply to internal combustion engines used to power generators, compressors or similar equipment used in any construction program or project.

5.5.1(d) "Nonroad Vehicle" means a vehicle that is powered by a Nonroad Engine, fifty (50) horsepower (HP) and greater, and that is not a Motor Vehicle or a vehicle used solely for competition, which shall include, but not be limited to, excavators, backhoes, cranes, compressors, generators, bulldozers, and similar equipment, except

that this terms shall not apply to horticultural maintenance vehicles used for landscaping purposes that are powered by a Nonroad Engine of sixty-five (65) HP or less and that are not used in any construction program or project.

5.5.1(e) "Ultra Low Sulfur Diesel Fuel" means diesel fuel that has a sulfur content of no more than fifteen parts per million (15 ppm).

5.5.2 Requirements. **Contractors** and **Subcontractors** are required to use only Ultra Low Sulfur Diesel Fuel to power the diesel-powered Nonroad Vehicles with engine HP rating of fifty (50) HP and above used on a Lower Manhattan Redevelopment Project and, where practicable, to reduce the emission of pollutants by retrofitting such Nonroad Vehicles with oxidation catalysts, particulate filters, or technology that achieves lowest particulate matter emissions.

5.6 Pesticides. In accordance with Section 17-1209 of the Administrative Code, to the extent that the **Contractor** or any **Subcontractor** applies pesticides to any property owned or leased by the **City**, the **Contractor**, and any **Subcontractor** shall comply with Chapter 12 of the Administrative Code.

5.7 Waste Treatment, Storage, and Disposal Facilities and Transporters. In connection with the **Work**, the **Contractor** and any **Subcontractor** shall use only those waste treatment, storage, and disposal facilities and waste transporters that possess the requisite license, permit or other governmental approval necessary to treat, store, dispose, or transport the waste, materials or hazardous substances.

5.8 Environmentally Preferable Purchasing. The **Contractor** shall ensure that products purchased or leased by the **Contractor** or any **Subcontractor** for the **Work** that are not specified by the **City** or are submitted as equivalents to a product specified by the **City** comply with the requirements of the New York City Environmentally Preferable Purchasing Program contained in Chapter 11 of Title 43 of the RCNY, pursuant to Chapter 3 of Title 6 of the Administrative Code.

ARTICLE 6. INSPECTION

6.1 During the progress of the **Work** and up to the date of **Final Acceptance**, the **Contractor** shall at all times afford the representatives of the **City** every reasonable, safe, and proper facility for inspecting all **Work** done or being done at the **Site** and also for inspecting the manufacture or preparation of materials and equipment at the place of such manufacture or preparation.

6.2 The **Contractor's** obligation hereunder shall include the uncovering or taking down of finished **Work** and its restoration thereafter; provided, however, that the order to uncover, take down and restore shall be in writing, and further provided that if **Work** thus exposed proves satisfactory, and if the **Contractor** has complied with Article 6.1, such uncovering or taking down and restoration shall be considered an item of **Extra Work** to be paid for in accordance with the provisions of Article 26. If the **Work** thus exposed proves unsatisfactory, the **City** has no obligation to compensate the **Contractor** for the uncovering, taking down or restoration.

6.3 Inspection and approval by the **Commissioner**, the **Engineer**, **Project Manager**, or **Resident Engineer**, of finished **Work** or of **Work** being performed, or of materials and equipment at the place of manufacture or preparation, shall not relieve the **Contractor** of its obligation to perform the **Work** in strict accordance with the **Contract**. Finished or unfinished **Work** not found to be in strict accordance with the **Contract** shall be replaced as directed by the **Engineer**, even though such **Work** may have been previously approved and paid for. Such corrective **Work** is **Contract Work** and shall not be deemed **Extra Work**.

6.4 Rejected **Work** and materials shall be promptly taken down and removed from the **Site**, which must at all times be kept in a reasonably clean and neat condition.

**ARTICLE 7. PROTECTION OF WORK AND OF PERSONS
AND PROPERTY; NOTICES AND INDEMNIFICATION**

7.1 During the performance of the **Work** and up to the date of **Final Acceptance**, the **Contractor** shall be under an absolute obligation to protect the finished and unfinished **Work** against any damage, loss, injury, theft and/or vandalism and in the event of such damage, loss, injury, theft and/or vandalism, it shall promptly replace and/or repair such **Work** at the **Contractor's** sole cost and expense, as directed by the **Resident Engineer**. The obligation to deliver finished **Work** in strict accordance with the **Contract** prior to **Final Acceptance** shall be absolute and shall not be affected by the **Resident Engineer's** approval of, or failure to prohibit, the **Means and Methods of Construction** used by the **Contractor**.

7.2 During the performance of the **Work** and up to the date of **Final Acceptance**, the **Contractor** shall take all reasonable precautions to protect all persons and the property of the **City** and of others from damage, loss or injury resulting from the **Contractor's**, and/or its **Subcontractors'** operations under this **Contract**. The **Contractor's** obligation to protect shall include the duty to provide, place or replace, and adequately maintain at or about the **Site** suitable and sufficient protection such as lights, barricades, and enclosures.

7.3 The **Contractor** shall comply with the notification requirements set forth below in the event of any loss, damage or injury to **Work**, persons or property, or any accidents arising out of the operations of the **Contractor** and/or its **Subcontractors** under this **Contract**.

7.3.1 The **Contractor** shall make a full and complete report in writing to the **Resident Engineer** within three (3) **Days** after the occurrence.

7.3.2 The **Contractor** shall also send written notice of any such event to all insurance carriers that issued potentially responsive policies (including commercial general liability insurance carriers for events relating to the **Contractor's** own employees) no later than twenty (20) days after such event and again no later than twenty (20) days after the initiation of any claim and/or action resulting therefrom. Such notice shall contain the following information: the number of the insurance policy, the name of the Named Insured, the date and location of the incident, and the identity of the persons injured or property damaged. For any policy on which the **City** and/or the **Engineer, Architect, or Project Manager** are Additional Insureds, such notice shall expressly specify that "this notice is being given on behalf of the City of New York as Additional Insured, such other Additional Insureds, as well as the Named Insured."

7.3.2(a) Whenever such notice is sent under a policy on which the **City** is an Additional Insured, the **Contractor** shall provide copies of the notice to the **Comptroller**, the **Commissioner** and the **City Corporation Counsel**. The copy to the **Comptroller** shall be sent to the Insurance Unit, NYC Comptroller's Office, 1 Centre Street – Room 1222, New York, New York, 10007. The copy to the **Commissioner** shall be sent to the address set forth in Schedule A of the General Conditions. The copy to the **City Corporation Counsel** shall be sent to Insurance Claims Specialist, Affirmative Litigation Division, New York City Law Department, 100 Church Street, New York, New York 10007.

7.3.2(b) If the **Contractor** fails to provide any of the foregoing notices to any appropriate insurance carrier(s) in a timely and complete manner, the **Contractor** shall indemnify the **City** for all losses, judgments, settlements, and expenses, including reasonable attorneys' fees, arising from an insurer's disclaimer of coverage citing late notice by or on behalf of the **City**.

7.4 To the fullest extent permitted by law, the **Contractor** shall defend, indemnify, and hold the **City**, its employees, and officials (the "Indemnitees") harmless against any and all claims (including but not limited to claims asserted by any employee of the **Contractor** and/or its **Subcontractors**) and costs and expenses of whatever kind (including but not limited to payment or reimbursement of attorneys' fees and disbursements) allegedly arising out of or in any way related to the operations of the **Contractor** and/or its **Subcontractors** in the performance of this **Contract** or from the **Contractor's** and/or its **Subcontractors'** failure to comply with any of the provisions of this **Contract** or of the **Law**. Such costs and expenses shall include all those incurred in defending the underlying claim and those incurred in connection with the enforcement of this Article 7.4 by way of cross-claim, third-party claim, declaratory action or otherwise. The parties expressly agree that the indemnification obligation hereunder contemplates (1) full indemnity in the event of liability imposed against the Indemnitees without negligence and solely by reason of statute, operation of **Law** or otherwise; and (2) partial indemnity in the event of any actual negligence on the part of the Indemnitees either causing or contributing to the underlying claim (in which case, indemnification will be limited to any liability imposed over and above that percentage attributable to actual fault whether by statute, by operation of **Law**, or otherwise). Where partial indemnity is provided hereunder, all costs and expenses shall be indemnified on a pro rata basis.

7.4.1 Indemnification under Article 7.4 or any other provision of the **Contract** shall operate whether or not **Contractor** or its **Subcontractors** have placed and maintained the insurance specified under Article 22.

7.5 The provisions of this Article 7 shall not be deemed to create any new right of action in favor of third parties against the **Contractor** or the **City**.

CHAPTER III TIME PROVISIONS

ARTICLE 8. COMMENCEMENT AND PROSECUTION OF THE WORK

8.1 The **Contractor** shall commence the **Work** on the date specified in the **Notice to Proceed** or the **Order to Work**. The time for performance of the **Work** under the **Contract** shall be computed from the date specified in the **Notice to Proceed** or the **Order to Work**. **TIME BEING OF THE ESSENCE** to the **City**, the **Contractor** shall thereafter prosecute the **Work** diligently, using such **Means and Methods of Construction** as are in accord with Article 4 herein and as will assure its completion not later than the date specified in this **Contract**, or on the date to which the time for completion may be extended.

ARTICLE 9. PROGRESS SCHEDULES

9.1 To enable the **Work** to be performed in an orderly and expeditious manner, the **Contractor**, within fifteen (15) **Days** after the **Notice to Proceed** or **Order to Work**, unless otherwise directed by the **Engineer**, shall submit to the **Engineer** a proposed progress schedule based on the Critical Path Method in the form of a bar graph or in such other form as specified by the **Engineer**, and monthly cash flow requirements, showing:

9.1.1 The anticipated time of commencement and completion of each of the various operations to be performed under this **Contract**; and

9.1.2 The sequence and interrelation of each of these operations with the others and with those of other related contracts; and

9.1.3 The estimated time required for fabrication or delivery, or both, of all materials and equipment required for the **Work**, including the anticipated time for obtaining required approvals pursuant to Article 10; and

9.1.4 The estimated amount in dollars the **Contractor** will claim on a monthly basis.

9.2 The proposed schedule shall be revised as directed by the **Engineer**, until finally approved by the **Engineer**, and after such approval, subject to the provisions of Article 11, shall be strictly adhered to by the **Contractor**.

9.3 If the **Contractor** shall fail to adhere to the approved progress schedule, or to the schedule as revised pursuant to Article 11, it shall promptly adopt such other or additional **Means and Methods of Construction**, at its sole cost and expense, as will make up for the time lost and will assure completion in accordance with the approved progress schedule. The approval by the **City** of a progress schedule which is shorter than the time allotted under the **Contract** shall not create any liability for the **City** if the approved progress schedule is not met.

9.4 The **Contractor** will not receive any payments until the proposed progress schedule is submitted.

ARTICLE 10. REQUESTS FOR INFORMATION OR APPROVAL

10.1 From time to time as the **Work** progresses and in the sequence indicated by the approved progress schedule, the **Contractor** shall submit to the **Engineer** a specific request in writing for each item of information or approval required by the **Contractor**. These requests shall state the latest date upon which the information or approval is actually required by the **Contractor**, and shall be submitted in a reasonable time in advance thereof to provide the **Engineer** a sufficient time to act upon such submissions, or any necessary re-submissions thereof.

10.2 The **Contractor** shall not have any right to an extension of time on account of delays due to the **Contractor's** failure to submit requests for the required information or the required approval in accordance with the above requirements.

ARTICLE 11. NOTICE OF CONDITIONS CAUSING DELAY AND DOCUMENTATION OF DAMAGES CAUSED BY DELAY

11.1 After the commencement of any condition which is causing or may cause a delay in completion of the **Work**, including conditions for which the **Contractor** may be entitled to an extension of time, the following notifications and submittals are required:

11.1.1 Within seven (7) **Days** after the commencement of such condition, the **Contractor** must notify the **Engineer** in writing of the existence, nature and effect of such condition upon the approved progress schedule and the **Work**, and must state why and in what respects, if any, the condition is causing or may cause a delay.

11.1.2 If the **Contractor** shall claim to be sustaining damages for delay as provided for in this Article 11, within forty-five (45) **Days** from the time such damages are first incurred, and every thirty (30) **Days** thereafter for as long as such damages are being incurred, the **Contractor** shall submit to the **Commissioner** verified written statements of the details and the amounts of such damages, together with documentary evidence of such damages, (“statement of delay damages”) as further detailed in Article 11.6. The **Contractor** may submit any of the above statements within such additional time as may be granted by the **Commissioner** in writing upon written request therefor. On failure of the **Contractor** to strictly comply with all of the foregoing provisions, such claims shall be deemed waived and no right to recover on such claims shall exist. Damages that the **Contractor** may claim in any action arising under or by reason of this **Contract** shall not be different from or in excess of the statements made and documentation provided pursuant to this Article 11.

11.1.3 Within 60 days of submission of the final verified statement of claims pursuant to Article 44, the **Commissioner** shall make a determination as to whether a compensable delay has occurred and, if so, the amount of compensation due the **Contractor**. Notwithstanding the above, the **Commissioner** may make a determination as to whether a compensable delay has occurred at any time after the **Contractor’s** first submission of a statement of delay damages provided, however, that the amount of compensation due to the **Contractor** will not be determined until the **Commissioner** determines that the **Work** is delayed after the date set for substantial completion.

11.2 Failure of the **Contractor** to strictly comply with the requirements of Article 11.1.1 may, in the discretion of the **Commissioner**, be deemed sufficient cause to deny any extension of time on account of delay arising out of such condition. Failure of the **Contractor** to strictly comply with the requirements of Articles 11.1.1 and 11.1.2 shall be deemed a conclusive waiver by the **Contractor** of any and all claims for damages for delay arising from such condition and no right to recover on such claims shall exist.

11.3 When appropriate and directed by the **Engineer**, the progress schedule shall be revised by the **Contractor** until finally approved by the **Engineer**. The revised progress schedule must be strictly adhered to by the **Contractor**.

11.4 Compensable Delays

11.4.1 The **Contractor** agrees to make claim only for additional costs attributable to delay in the performance of this **Contract** necessarily extending the time for completion of the **Work** or resulting from acceleration directed by the **Commissioner** and required to maintain the **Project** schedule, occasioned solely by any act or omission to act of the **City** listed below. The **Contractor** also agrees that delay from any other cause shall be compensated, if at all, solely by an extension of time to complete the performance of the **Work**.

11.4.1.1 The failure of the **City** to take reasonable measures to coordinate and progress the **Work**, except that the **City** shall not be responsible for the **Contractor’s** obligation to coordinate and progress the **Work** of its **Subcontractors**.

11.4.1.2 Extended delays attributable to the **City** in the review or issuance of change orders, in shop drawing reviews and approvals or as a result of the cumulative impact of multiple change orders, which have a verifiable impact on **Project** costs.

11.4.1.3 The unavailability of the **Site** for an extended period of time that significantly affects the scheduled completion of the **Contract**.

- 11.4.1.4 The issuance by the **Engineer** of a stop work order relative to a substantial portion of the **Work** for a period exceeding thirty (30) **Days**, that was not brought about through any action or omission of the **Contractor**.
- 11.4.1.5 Differing site conditions that were neither known nor reasonably ascertainable on a pre-bid inspection of the **Site** or review of the bid documents or other publicly available sources, and that are not ordinarily encountered in the **Project's** geographical area or neighborhood or in the type of **Work** to be performed.
- 11.4.1.6 Delays caused by the **City's** bad faith or its willful, malicious, or grossly negligent conduct;
- 11.4.1.7 Delays not contemplated by the parties;
- 11.4.1.8 Delays so unreasonable that they constitute an intentional abandonment of the **Contract** by the **City**; and
- 11.4.1.9 Delays resulting from the **City's** breach of a fundamental obligation of the **Contract**.

11.4.2 No claim may be made for any alleged delay in **Substantial Completion** of the **Work** by a date earlier than the date of **Substantial Completion** provided for in Schedule A unless there is a provision in the **Contract** providing for additional compensation for early completion. No claim may be made for any alleged delay in **Substantial Completion** of the **Work** if the work is substantially completed by the date of **Substantial Completion** provided for in Schedule A unless acceleration has been directed by the **Commissioner** to meet the date of **Substantial Completion** set forth in Schedule A.

11.4.3 The provisions of this Article 11 apply only to claims for additional costs attributable to delay and do not preclude determinations by the **Commissioner** allowing reimbursements for additional costs for **Extra Work** pursuant to Articles 25 and 26 of this **Contract**. To the extent that any cost attributable to delay is reimbursed as part of a change order, no additional claim for compensation under this Article 11 shall be allowed.

11.5 **Non-Compensable Delays.** The **Contractor** agrees to make no claim for, and is deemed to have included in its bid prices for the various items of the **Contract**, the extra/additional costs attributable to any delays caused by or attributable to the items set forth below. For such items, the **Contractor** shall be compensated, if at all, solely by an extension of time to complete the performance of the **Work**, in accordance with the provisions of Article 13. Such extensions of time will be granted, if at all, pursuant to the grounds set forth in Article 13.3.

11.5.1 The acts or omissions of any third parties, including but not limited to **Other Contractors**, public/ governmental bodies (other than **City Agencies**), utilities or private enterprises, who are disclosed in the **Contract Documents** or are ordinarily encountered or generally recognized as related to the **Work**;

11.5.2 Any situation which was within the contemplation of the parties at the time of entering into the **Contract**, including any delay indicated or disclosed in the **Contract Documents** or generally recognized as related to the nature of the **Work**, and/or the existence of any facility or appurtenance owned, operated or maintained by any third party, as indicated or disclosed in the **Contract Documents** or ordinarily encountered or generally recognized as related to the nature of the **Work**;

11.5.3 Restraining orders, injunctions or judgments issued by a court which were caused by a Contractor's submission, action or inaction or by a Contractor's **Means and Methods of**

Construction, or by third parties, unless such order, injunction or judgment was the result of an action or omission by the **City**;

11.5.4 Any labor boycott, strike, picketing, lockout or similar situation;

11.5.5 Any shortages of supplies or materials, or unavailability of equipment, required by the **Contract Work**;

11.5.6 Climatic conditions, storms, floods, droughts, tidal waves, fires, hurricanes, earthquakes, landslides or other catastrophes or acts of God, or acts of war or of the public enemy or terrorist acts, including the **City's** reasonable responses thereto; and

11.5.7 **Extra Work** which does not significantly affect the overall completion of the **Contract**, reasonable delays in the review or issuance of change orders or field orders and/or in shop drawing reviews or approvals.

11.6 Required Content of Submission of Statement of Delay Damages

11.6.1 In the verified written statement of delay damages required by Article 11.1.2, the following information shall be provided by the **Contractor**:

11.6.1.1 For each delay, the start and end dates of the claimed periods of delay and, in addition, a description of the operations that were delayed, an explanation of how they were delayed, and the reasons for the delay, including identifying the applicable act or omission of the **City** listed in Article 11.4.

11.6.1.2 A detailed factual statement of the claim providing all necessary dates, locations and items of **Work** affected by the claim.

11.6.1.3 The amount of additional compensation sought and a breakdown of that amount into categories as described in Article 26.2, subject to the limitations set forth in Article 11.7.

11.6.1.4 Any additional information requested by the **Commissioner**.

11.7 Recoverable Costs

11.7.1 Delay damages may be recoverable for the following costs actually and necessarily incurred in the performance of the **Work**:

11.7.1.1 Direct labor, including payroll taxes (subject to statutory wage caps) and supplemental benefits, based on time and materials records;

11.7.1.2 Necessary materials (including transportation to the **Site**), based on time and material records;

11.7.1.3 Reasonable rental value of necessary plant and equipment other than small tools, plus fuel/energy costs according to the applicable formula set forth in Articles 26.2.4 and/or 26.2.8, based on time and material records;

11.7.1.4 Insurance and bond costs;

11.7.1.5 Extended field office costs;

11.7.1.6 Extended **Site** overhead; and

11.7.1.7 Extended home office overhead.

11.7.2 Recoverable Subcontractor Costs. When the **Work** is performed by a **Subcontractor**, the **Contractor** may be paid the actual and necessary costs of such subcontracted **Work** as outlined above in Articles 11.7.1.1 through 11.7.1.6, and an

additional overhead of five (5%) percent of the costs outlined in Articles 11.7.1.1 through 11.7.1.3.

11.7.3 Non-Recoverable Costs. The parties agree that the **City** will have no liability for the following items and the **Contractor** agrees it shall make no claim for the following items:

11.7.3.1 Profit, or loss of anticipated or unanticipated profit;

11.7.3.2 Consequential damages, including but not limited to interest on monies in dispute, including interest which is paid on such monies, loss of bonding capacity, bidding opportunities, or interest in investment, or any resulting insolvency;

11.7.3.3 Indirect costs or expenses of any nature;

11.7.3.4 Direct or indirect costs attributable to performance of **Work** where the **Contractor**, because of situations or conditions within its control, has not progressed the **Work** in a satisfactory manner; and

11.7.3.5 Attorneys' fees and dispute and claims preparation expenses.

11.8 Determinations under this Article 11 are not subject to the jurisdiction of the Contract Dispute Resolution Board pursuant to the dispute resolution process set forth in Article 27.

11.9 If the parties agree, pursuant to Article 11.1.3 above, that a compensable delay has occurred and agree on the amount of compensation, payment may be made pursuant to a written change order. Payment pursuant to such change order is subject to pre-audit by the **Engineering Audit Officer**, and may be post-audited by the **Comptroller** and/or the **Agency**.

ARTICLE 12. COORDINATION WITH OTHER CONTRACTORS

12.1 During the progress of the **Work**, **Other Contractors** may be engaged in performing other work or may be awarded other contracts for additional work on this **Project**. In that event, the **Contractor** shall coordinate the **Work** to be done hereunder with the work of such **Other Contractors** and the **Contractor** shall fully cooperate with such **Other Contractors** and carefully fit its own **Work** to that provided under other contracts as may be directed by the **Engineer**. The **Contractor** shall not commit or permit any act which will interfere with the performance of work by any **Other Contractors**.

12.2 If the **Engineer** determines that the **Contractor** is failing to coordinate its **Work** with the work of **Other Contractors** as the **Engineer** has directed, then the **Commissioner** shall have the right to withhold any payments otherwise due hereunder until the **Contractor** completely complies with the **Engineer's** directions.

12.3 The **Contractor** shall notify the **Engineer** in writing if any **Other Contractor** on this **Project** is failing to coordinate its work with the **Work** of this **Contract**. If the **Engineer** finds such charges to be true, the **Engineer** shall promptly issue such directions to the **Other Contractor** with respect thereto as the situation may require. The **City** shall not, however, be liable for any damages suffered by any **Other Contractor's** failure to coordinate its work with the **Work** of this **Contract** or by reason of the **Other Contractor's** failure to promptly comply with the directions so issued by the **Engineer**, or by reason of any **Other Contractor's** default in performance, it being understood that the **City** does not guarantee the responsibility or continued efficiency of any contractor. The **Contractor** agrees to make no claim against

the City for any damages relating to or arising out of any directions issued by the **Engineer** pursuant to this Article 12 (including but not limited to the failure of any **Other Contractor** to comply or promptly comply with such directions), or the failure of the **Engineer** to issue any directions, or the failure of any **Other Contractor** to coordinate its work, or the default in performance of any **Other Contractor**.

12.4 The **Contractor** shall indemnify and hold the City harmless from any and all claims or judgments for damages and from costs and expenses to which the City may be subjected or which it may suffer or incur by reason of the **Contractor's** failure to comply with the **Engineer's** directions promptly; and the **Comptroller** shall have the right to exercise the powers reserved in Article 23 with respect to any claims which may be made for damages due to the **Contractor's** failure to comply with the **Engineer's** directions promptly. Insofar as the facts and Law relating to any claim would preclude the City from being completely indemnified by the **Contractor**, the City shall be partially indemnified by the **Contractor** to the fullest extent provided by Law.

12.5 Should the **Contractor** sustain any damage through any act or omission of any **Other Contractor** having a contract with the City for the performance of work upon the Site or of work which may be necessary to be performed for the proper prosecution of the Work to be performed hereunder, or through any act or omission of a subcontractor of such **Other Contractor**, the **Contractor** shall have no claim against the City for such damage, but shall have a right to recover such damage from the **Other Contractor** under the provision similar to the following provisions which apply to this Contract and have been or will be inserted in the contracts with such **Other Contractors**:

12.5.1 Should any **Other Contractor** having or who shall hereafter have a contract with the City for the performance of work upon the Site sustain any damage through any act or omission of the **Contractor** hereunder or through any act or omission of any **Subcontractor** of the **Contractor**, the **Contractor** agrees to reimburse such **Other Contractor** for all such damages and to defend at its own expense any action based upon such claim and if any judgment or claim (even if the allegations of the action are without merit) against the City shall be allowed the **Contractor** shall pay or satisfy such judgment or claim and pay all costs and expenses in connection therewith and agrees to indemnify and hold the City harmless from all such claims. Insofar as the facts and Law relating to any claim would preclude the City from being completely indemnified by the **Contractor**, the City shall be partially indemnified by the **Contractor** to the fullest extent provided by Law.

12.6 The City's right to indemnification hereunder shall in no way be diminished, waived or discharged by its recourse to assessment of liquidated damages as provided in Article 15, or by the exercise of any other remedy provided for by Contract or by Law.

ARTICLE 13. EXTENSION OF TIME FOR PERFORMANCE

13.1 If performance by the **Contractor** is delayed for a reason set forth in Article 13.3, the **Contractor** may be allowed a reasonable extension of time in conformance with this Article 13 and the PPB Rules.

13.2 Any extension of time may be granted only by the ACCO or by the Board for the Extension of Time (hereafter "Board") (as set forth below) upon written application by the **Contractor**.

13.3 Grounds for Extension: If such application is made, the **Contractor** shall be entitled to an extension of time for delay in completion of the Work caused solely:

13.3.1 By the acts or omissions of the City, its officials, agents or employees; or

13.3.2 By the act or omissions of **Other Contractors** on this **Project**; or

13.3.3 By supervening conditions entirely beyond the control of either party hereto (such as, but not limited to, acts of God or the public enemy, excessive inclement weather, war or other national emergency making performance temporarily impossible or illegal, or strikes or labor disputes not brought about by any act or omission of the **Contractor**).

13.3.4 The **Contractor** shall, however, be entitled to an extension of time for such causes only for the number of **Days** of delay which the **ACCO** or the Board may determine to be due solely to such causes, and then only if the **Contractor** shall have strictly complied with all of the requirements of Articles 9 and 10.

13.4 The **Contractor** shall not be entitled to receive a separate extension of time for each of several causes of delay operating concurrently, but, if at all, only for the actual period of delay in completion of the **Work** as determined by the **ACCO** or the Board, irrespective of the number of causes contributing to produce such delay. If one of several causes of delay operating concurrently results from any act, fault or omission of the **Contractor** or of its **Subcontractors** or **Materialmen**, and would of itself (irrespective of the concurrent causes) have delayed the **Work**, no extension of time will be allowed for the period of delay resulting from such act, fault or omission.

13.5 The determination made by the **ACCO** or the Board on an application for an extension of time shall be binding and conclusive on the **Contractor**.

13.6 The **ACCO** or the Board acting entirely within their discretion may grant an application for an extension of time for causes of delay other than those herein referred.

13.7 Permitting the **Contractor** to continue with the **Work** after the time fixed for its completion has expired, or after the time to which such completion may have been extended has expired, or the making of any payment to the **Contractor** after such time, shall in no way operate as a waiver on the part of the **City** of any of its rights under this **Contract**.

13.8 Application for Extension of Time:

13.8.1 Before the **Contractor's** time extension request will be considered, the **Contractor** shall notify the **ACCO** of the condition which allegedly has caused or is causing the delay, and shall submit a written application to the **ACCO** identifying:

13.8.1(a) The **Contractor**; the registration number; and **Project** description;

13.8.1(b) Liquidated damage assessment rate, as specified in the **Contract**;

13.8.1(c) Original total bid price;

13.8.1(d) The original **Contract** start date and completion date;

13.8.1(e) Any previous time extensions granted (number and duration); and

13.8.1(f) The extension of time requested.

13.8.2 In addition, the application for extension of time shall set forth in detail:

13.8.2(a) The nature of each alleged cause of delay in completing the **Work**;

13.8.2(b) The date upon which each such cause of delay began and ended and the number of **Days** attributable to each such cause;

13.8.2(c) A statement that the **Contractor** waives all claims except for those delineated in the application, and the particulars of any claims which the **Contractor** does not agree to waive. For time extensions for **Substantial Completion** and final completion payments, the application shall include a detailed statement of the dollar amounts of each element of claim item reserved; and

13.8.2(d) A statement indicating the **Contractor's** understanding that the time extension is granted only for purposes of permitting continuation of **Contract** performance and payment for **Work** performed and that the **City** retains its right to conduct an investigation and assess liquidated damages as appropriate in the future.

13.9 Analysis and Approval of Time Extensions:

13.9.1 For time extensions for partial payments, a written determination shall be made by the **ACCO** who may, for good and sufficient cause, extend the time for the performance of the **Contract** as follows:

13.9.1(a) If the **Work** is to be completed within six (6) months, the time for performance may be extended for sixty (60) **Days**;

13.9.1(b) If the **Work** is to be completed within less than one (1) year but more than six (6) months, an extension of ninety (90) **Days** may be granted;

13.9.1(c) If the **Contract** period exceeds one (1) year, besides the extension granted in Article 13.9.1(b), an additional thirty (30) **Days** may be granted for each multiple of six (6) months involved beyond the one (1) year period; or

13.9.1(d) If exceptional circumstances exist, the **ACCO** may extend the time for performance beyond the extensions in Articles 13.9.1(a), 13.9.1(b), and 13.9.1(c). In that event, the **ACCO** shall file with the Mayor's Office of Contract Services a written explanation of the exceptional circumstances.

13.9.2 For extensions of time for **Substantial Completion** and final completion payments, the **Engineer**, in consultation with the **ACCO**, shall prepare a written analysis of the delay (including a preliminary determination of the causes of delay, the beginning and end dates for each such cause of delay, and whether the delays are excusable under the terms of this **Contract**). The report shall be subject to review by and approval of the Board, which shall have authority to question its analysis and determinations and request additional facts or documentation. The report as reviewed and made final by the Board shall be made a part of the **Agency** contract file. Neither the report itself nor anything contained therein shall operate as a waiver or release of any claim the **City** may have against the **Contractor** for either actual or liquidated damages.

13.9.3 Approval Mechanism for Time Extensions for **Substantial Completion** or Final Completion Payments: An extension shall be granted only with the approval of the Board which is comprised of the **ACCO** of the **Agency**, the **City** Corporation Counsel, and the **Comptroller**, or their authorized representatives.

13.9.4 Neither the granting of any application for an extension of time to the **Contractor** or any **Other Contractor** on this **Project** nor the papers, records or reports related to any application for or grant of an extension of time or determination related thereto shall be referred to or offered in evidence by the **Contractor** or its attorneys in any action or proceeding.

13.10 No Damage for Delay: The **Contractor** agrees to make no claim for damages for delay in the performance of this **Contract** occasioned by any act or omission to act of the **City** or any of its representatives, except as provided for in Article 11.

ARTICLE 14. COMPLETION AND FINAL ACCEPTANCE OF THE WORK

14.1 Date for **Substantial Completion**: The **Contractor** shall substantially complete the **Work** within the time fixed in Schedule A of the General Conditions, or within the time to which such **Substantial Completion** may be extended.

14.2 Determining the Date of **Substantial Completion**: The **Work** will be deemed to be substantially complete when the two conditions set forth below have been met.

14.2.1 Inspection: The **Engineer** has inspected the **Work** and has made a written determination that it is substantially complete.

14.2.2 Approval of **Final Approved Punch List** and Date for **Final Acceptance**: Following inspection of the **Work**, the **Engineer** shall furnish the **Contractor** with a final punch list, specifying all items of **Work** to be completed and proposing dates for the completion of each specified item of **Work**. The **Contractor** shall then submit in writing to the **Engineer** within ten (10) **Days** of the **Engineer** furnishing the final punch list either acceptance of the dates or proposed alternative dates for the completion of each specified item of **Work**. If the **Contractor** proposes alternative dates, then, within a reasonable time after receipt, the **Engineer**, in a written notification to the **Contractor**, shall approve the **Contractor's** completion dates or, if they are unable to agree, the **Engineer** shall establish dates for the completion of each item of **Work**. If the **Contractor** neither accepts the dates nor proposes alternative dates within ten (10) **Days**, the schedule proposed by the **Engineer** shall be deemed accepted. The latest completion date specified shall be the date for **Final Acceptance** of the **Work**.

14.3 Date of **Substantial Completion**. The date of approval of the **Final Approved Punch List**, shall be the date of **Substantial Completion**. The date of approval of the **Final Approved Punch List** shall be either (a) if the **Contractor** approves the final punch list and proposed dates for completion furnished by the **Engineer**, the date of the **Contractor's** approval; or (b) if the **Contractor** neither accepts the dates nor proposes alternative dates, ten (10) **Days** after the **Engineer** furnishes the **Contractor** with a final punch list and proposed dates for completion; or (c) if the **Contractor** proposes alternative dates, the date that the **Engineer** sends written notification to the **Contractor** either approving the **Contractor's** proposed alternative dates or establishing dates for the completion for each item of **Work**.

14.4 Determining the Date of **Final Acceptance**: The **Work** will be accepted as final and complete as of the date of the **Engineer's** inspection if, upon such inspection, the **Engineer** finds that all items on the **Final Approved Punch List** are complete and no further **Work** remains to be done. The **Commissioner** will then issue a written determination of **Final Acceptance**.

14.5 Request for Inspection: Inspection of the **Work** by the **Engineer** for the purpose of **Substantial Completion** or **Final Acceptance** shall be made within ten (10) **Days** after receipt of the **Contractor's** written request therefor.

14.6 Request for Re-inspection: If upon inspection for the purpose of **Substantial Completion** or **Final Acceptance**, the **Engineer** determines that there are items of **Work** still to be performed, the **Contractor** shall promptly perform them and then request a re-inspection. If upon re-inspection, the **Engineer** determines that the **Work** is substantially complete or finally accepted, the date of such re-inspection shall be the date of **Substantial Completion** or **Final Acceptance**. Re-inspection by the **Engineer** shall be made within ten (10) **Days** after receipt of the **Contractor's** written request therefor.

14.7 Initiation of Inspection by the **Engineer**: If the **Contractor** does not request inspection or re-inspection of the **Work** for the purpose of **Substantial Completion** or **Final Acceptance**, the **Engineer** may initiate such inspection or re-inspection.

ARTICLE 15. LIQUIDATED DAMAGES

15.1 In the event the **Contractor** fails to substantially complete the **Work** within the time fixed for such **Substantial Completion** in Schedule A of the General Conditions, plus authorized time extensions, or if the **Contractor**, in the sole determination of the **Commissioner**, has abandoned the **Work**, the **Contractor** shall pay to the **City** the sum fixed in Schedule A of the General Conditions, for each and every **Day** that the time consumed in substantially completing the **Work** exceeds the time allowed therefor; which said sum, in view of the difficulty of accurately ascertaining the loss which the **City** will suffer by reason of delay in the **Substantial Completion** of the **Work** hereunder, is hereby fixed and agreed as the liquidated damages that the **City** will suffer by reason of such delay, and not as a penalty. This Article 15 shall also apply to the **Contractor** whether or not the **Contractor** is defaulted pursuant to Chapter X of this **Contract**. Neither the failure to assess liquidated damages nor the granting of any time extension shall operate as a waiver or release of any claim the **City** may have against the **Contractor** for either actual or liquidated damages.

15.2 Liquidated damages received hereunder are not intended to be nor shall they be treated as either a partial or full waiver or discharge of the **City's** right to indemnification, or the **Contractor's** obligation to indemnify the **City**, or to any other remedy provided for in this **Contract** or by **Law**.

15.3 The **Commissioner** may deduct and retain out of the monies which may become due hereunder, the amount of any such liquidated damages; and in case the amount which may become due hereunder shall be less than the amount of liquidated damages suffered by the **City**, the **Contractor** shall be liable to pay the difference.

ARTICLE 16. OCCUPATION OR USE PRIOR TO COMPLETION

16.1 Unless otherwise provided for in the **Specifications**, the **Commissioner** may take over, use, occupy or operate any part of the **Work** at any time prior to **Final Acceptance**, upon written notification to the **Contractor**. The **Engineer** shall inspect the part of the **Work** to be taken over, used, occupied, or operated, and will furnish the **Contractor** with a written statement of the **Work**, if any, which remains to be performed on such part. The **Contractor** shall not object to, nor interfere with, the **Commissioner's** decision to exercise the rights granted by Article 16. In the event the **Commissioner** takes over, uses, occupies, or operates any part of the **Work**:

16.1.1 the **Engineer** shall issue a written determination of **Substantial Completion** with respect to such part of the **Work**;

16.1.2 the **Contractor** shall be relieved of its absolute obligation to protect such part of the unfinished **Work** in accordance with Article 7;

16.1.3 the **Contractor's** guarantee on such part of the **Work** shall begin on the date of such use by the **City**; and;

16.1.4 the **Contractor** shall be entitled to a return of so much of the amount retained in accordance with Article 21 as it relates to such part of the **Work**, except so much thereof as may be retained under Articles 24 and 44.

CHAPTER IV SUBCONTRACTS AND ASSIGNMENTS

ARTICLE 17. SUBCONTRACTS

17.1 The **Contractor** shall not make subcontracts totaling an amount more than the percentage of the total **Contract** price fixed in Schedule A of the General Conditions, without prior written permission from the **Commissioner**. All subcontracts made by the **Contractor** shall be in writing. No **Work** may be performed by a **Subcontractor** prior to the **Contractor** entering into a written subcontract with the **Subcontractor** and complying with the provisions of this Article 17.

17.2 Before making any subcontracts, the **Contractor** shall submit a written statement to the **Commissioner** giving the name and address of the proposed **Subcontractor**; the portion of the **Work** and materials which it is to perform and furnish; the cost of the subcontract; the VENDEX questionnaire if required; the proposed subcontract if requested by the **Commissioner**; and any other information tending to prove that the proposed **Subcontractor** has the necessary facilities, skill, integrity, past experience, and financial resources to perform the **Work** in accordance with the terms and conditions of this **Contract**.

17.3 In addition to the requirements in Article 17.2, **Contractor** is required to list the **Subcontractor** in the web based Subcontractor Reporting System through the City's Payee Information Portal (PIP), available at www.nyc.gov/pip.¹ For each **Subcontractor** listed, **Contractor** is required to provide the following information: maximum contract value, description of **Subcontractor's** Work, start and end date of the subcontract and identification of the **Subcontractor's** industry. Thereafter, **Contractor** will be required to report in the system the payments made to each **Subcontractor** within 30 days of making the payment. If any of the required information changes throughout the Term of the **Contract**, **Contractor** will be required to revise the information in the system.

Failure of the **Contractor** to list a **Subcontractor** and/or to report **Subcontractor** payments in a timely fashion may result in the **Commissioner** declaring the **Contractor** in default of the **Contract** and will subject **Contractor** to liquidated damages in the amount of \$100 per day for each day that the **Contractor** fails to identify a **Subcontractor** along with the required information about the **Subcontractor** and/or fails to report payments to a **Subcontractor**, beyond the time frames set forth herein or in the notice from the **City**. Article 15 shall govern the issue of liquidated damages.

¹ In order to use the new system, a PIP account will be required. Detailed instructions on creating a PIP account and using the new system are also available at www.nyc.gov/pip. Additional assistance with PIP may be obtained by emailing the Financial Information Services Agency Help Desk at pip@fisa.nyc.gov.

17.4 If an approved **Subcontractor** elects to subcontract any portion of its subcontract, the proposed sub-subcontract shall be submitted in the same manner as directed above.

17.5 The **Commissioner** will notify the **Contractor** in writing whether the proposed **Subcontractor** is approved. If the proposed **Subcontractor** is not approved, the **Contractor** may submit another proposed **Subcontractor** unless the **Contractor** decides to do the **Work**. No **Subcontractor** shall be permitted to enter or perform any work on the **Site** unless approved.

17.6 Before entering into any subcontract hereunder, the **Contractor** shall provide the proposed **Subcontractor** with a complete copy of this document and inform the proposed **Subcontractor** fully and completely of all provisions and requirements of this **Contract** relating either directly or indirectly to the **Work** to be performed and the materials to be furnished under such subcontract, and every such **Subcontractor** shall expressly stipulate that all labor performed and materials furnished by the **Subcontractor** shall strictly comply with the requirements of this **Contract**.

17.7 Documents given to a prospective **Subcontractor** for the purpose of soliciting the **Subcontractor's** bid shall include either a copy of the bid cover or a separate information sheet setting forth the **Project** name, the **Contract** number (if available), the **Agency** (as noted in Article 2.1.6), and the **Project's** location.

17.8 The **Commissioner's** approval of a **Subcontractor** shall not relieve the **Contractor** of any of its responsibilities, duties, and liabilities hereunder. The **Contractor** shall be solely responsible to the **City** for the acts or defaults of its **Subcontractor** and of such **Subcontractor's** officers, agents, and employees, each of whom shall, for this purpose, be deemed to be the agent or employee of the **Contractor** to the extent of its subcontract.

17.9 If the **Subcontractor** fails to maintain the necessary facilities, skill, integrity, past experience, and financial resources (other than due to the **Contractor's** failure to make payments where required) to perform the **Work** in accordance with the terms and conditions of this **Contract**, the **Contractor** shall promptly notify the **Commissioner** and replace such **Subcontractor** with a newly approved **Subcontractor** in accordance with this Article 17.

17.10 The **Contractor** shall be responsible for ensuring that all **Subcontractors** performing **Work** at the **Site** maintain all insurance required by **Law**.

17.11 The **Contractor** shall promptly, upon request, file with the **Engineer** a conformed copy of the subcontract and its cost. The subcontract shall provide the following:

17.11.1 **Payment to Subcontractors:** The agreement between the **Contractor** and its **Subcontractor** shall contain the same terms and conditions as to method of payment for **Work**, labor, and materials, and as to retained percentages, as are contained in this **Contract**.

17.11.2 **Prevailing Rate of Wages:** The agreement between the **Contractor** and its **Subcontractor** shall include the prevailing wage rates and supplemental benefits to be paid in accordance with Labor Law Section 220.

17.11.3 **Section 6-123 of the Administrative Code:** Pursuant to the requirements of Section 6-123 of the Administrative Code, every agreement between the **Contractor** and a **Subcontractor** in excess of fifty thousand (\$50,000) dollars shall include a provision that the **Subcontractor** shall not engage in any unlawful discriminatory practice as defined in Title VIII of the Administrative Code (Section 8-101 *et seq.*).

17.11.4 All requirements required pursuant to federal and/or state grant agreement(s), if applicable to the **Work**.

17.12 The **Commissioner** may deduct from the amounts certified under this **Contract** to be due to the **Contractor**, the sum or sums due and owing from the **Contractor** to the **Subcontractors** according to the terms of the said subcontracts, and in case of dispute between the **Contractor** and its **Subcontractor**, or **Subcontractors**, as to the amount due and owing, the **Commissioner** may deduct and withhold from the amounts certified under this **Contract** to be due to the **Contractor** such sum or sums as may be claimed by such **Subcontractor**, or **Subcontractors**, in a sworn affidavit, to be due and owing until such time as such claim or claims shall have been finally resolved.

17.13 On contracts where performance bonds and payment bonds are executed, the **Contractor** shall include on each requisition for payment the following data: **Subcontractor's** name, value of the subcontract, total amount previously paid to **Subcontractor** for **Work** previously requisitioned, and the amount, including retainage, to be paid to the **Subcontractor** for **Work** included in the requisition.

17.14 On **Contracts** where performance bonds and payment bonds are not executed, the **Contractor** shall include with each requisition for payment submitted hereunder, a signed statement from each and every **Subcontractor** and/or **Materialman** for whom payment is requested in such requisition. Such signed statement shall be on the letterhead of the **Subcontractor** and/or **Materialman** for whom payment is requested and shall (i) verify that such **Subcontractor** and/or **Materialman** has been paid in full for all **Work** performed and/or material supplied to date, exclusive of any amount retained and any amount included on the current requisition, and (ii) state the total amount of retainage to date, exclusive of any amount retained on the current requisition.

ARTICLE 18. ASSIGNMENTS

18.1 The **Contractor** shall not assign, transfer, convey or otherwise dispose of this **Contract**, or the right to execute it, or the right, title or interest in or to it or any part thereof, or assign, by power of attorney or otherwise any of the monies due or to become due under this **Contract**, unless the previous written consent of the **Commissioner** shall first be obtained thereto, and the giving of any such consent to a particular assignment shall not dispense with the necessity of such consent to any further or other assignments.

18.2 Such assignment, transfer, conveyance or other disposition of this **Contract** shall not be valid until filed in the office of the **Commissioner** and the **Comptroller**, with the written consent of the **Commissioner** endorsed thereon or attached thereto.

18.3 Failure to obtain the previous written consent of the **Commissioner** to such an assignment, transfer, conveyance or other disposition, may result in the revocation and annulment of this **Contract**. The **City** shall thereupon be relieved and discharged from any further liability to the **Contractor**, its assignees, transferees or sublessees, who shall forfeit and lose all monies therefor earned under the **Contract**, except so much as may be required to pay the **Contractor's** employees.

18.4 The provisions of this clause shall not hinder, prevent, or affect an assignment by the **Contractor** for the benefit of its creditors made pursuant to the **Laws** of the State of New York.

18.5 This **Contract** may be assigned by the **City** to any corporation, agency or instrumentality having authority to accept such assignment.

**CHAPTER V
CONTRACTOR'S SECURITY AND GUARANTEE**

ARTICLE 19. SECURITY DEPOSIT

19.1 If performance and payment bonds are required, the **City** shall retain the bid security to ensure that the successful bidder executes the **Contract** and furnishes the required payment and performance security within ten (10) **Days** after notice of the award of the **Contract**. If the successful bidder fails to execute the **Contract** and furnish the required payment and performance security, the **City** shall retain such bid security as set forth in the Information for Bidders. If the successful bidder executes the **Contract** and furnishes the required payment and performance security, the **City** shall return the bid security within a reasonable time after the furnishing of such bonds and execution of the **Contract** by the **City**.

19.2 If performance and payment bonds are not required, the bid security shall be retained by the **City** as security for the **Contractor's** faithful performance of the **Contract**. If partial payments are provided, the bid security will be returned to the **Contractor** after the sum retained under Article 21 equals the amount of the bid security, subject to other provisions of this **Contract**. If partial payments are not provided, the bid security will be released when final payment is certified by the **City** for payment.

19.3 If the **Contractor** is declared in default under Article 48 prior to the return of the deposit, or if any claim is made such as referred to in Article 23, the amount of such deposit, or so much thereof as the **Comptroller** may deem necessary, may be retained and then applied by the **Comptroller**:

19.3.1 To compensate the **City** for any expense, loss or damage suffered or incurred by reason of or resulting from such default, including the cost of re-letting and liquidated damages; or

19.3.2 To indemnify the **City** against any and all claims.

ARTICLE 20. PAYMENT GUARANTEE

20.1 On **Contracts** where one hundred (100%) percent performance bonds and payment bonds are executed, this Article 20 does not apply.

20.2 In the event the terms of this **Contract** do not require the **Contractor** to provide a payment bond or where the **Contract** does not require a payment bond for one hundred (100%) percent of the **Contract** price, the **City** shall, in accordance with the terms of this Article 20, guarantee payment of all lawful claims for:

20.2.1 Wages and compensation for labor performed and/or services rendered; and

20.2.2 Materials, equipment, and supplies provided, whether incorporated into the **Work** or not, when demands have been filed with the **City** as provided hereinafter by any person, firm, or corporation which furnished labor, material, equipment, supplies, or any combination thereof, in connection with the **Work** performed hereunder (hereinafter referred to as the "beneficiary") at the direction of the **City** or the **Contractor**.

20.3 The provisions of Article 20.2 are subject to the following limitations and conditions:

20.3.1 If the **Contractor** provides a payment bond for a value that is less than one hundred (100%) percent of the value of the **Contract Work**, the payment bond provided by the **Contractor** shall be primary (and non-contributing) to the payment guarantee provided under this Article 20.

20.3.2 The guarantee is made for the benefit of all beneficiaries as defined in Article 20.2 provided that those beneficiaries strictly adhere to the terms and conditions of Article 20.3.4 and 20.3.5.

20.3.3 Nothing in this Article 20 shall prevent a beneficiary providing labor, services or material for the **Work** from suing the **Contractor** for any amounts due and owing the beneficiary by the **Contractor**.

20.3.4 Every person who has furnished labor or material, to the **Contractor** or to a **Subcontractor** of the **Contractor**, in the prosecution of the **Work** and who has not been paid in full therefor before the expiration of a period of ninety (90) **Days** after the date on which the last of the labor was performed or material was furnished by him/her for which the claim is made, shall have the right to sue on this payment guarantee in his/her own name for the amount, or the balance thereof, unpaid at the time of commencement of the action; provided, however, that a person having a direct contractual relationship with a **Subcontractor** of the **Contractor** but no contractual relationship express or implied with the **Contractor** shall not have a right of action upon the guarantee unless he/she shall have given written notice to the **Contractor** within one hundred twenty (120) **Days** from the date on which the last of the labor was performed or the last of the material was furnished, for which his/her claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the material was furnished or for whom the labor was performed. The notice shall be served by delivering the same personally to the **Contractor** or by mailing the same by registered mail, postage prepaid, in an envelope addressed to the **Contractor** at any place where it maintains an office or conducts its business; provided, however, that where such notice is actually received by the **Contractor** by other means, such notice shall be deemed sufficient.

20.3.5 Except as provided in Labor Law Section 220-g, no action on this payment guarantee shall be commenced after the expiration of the one-year limitations period set forth in Section 137(4)(b) of the State Finance Law.

20.3.6 The **Contractor** shall promptly forward to the **City** any notice or demand received pursuant to Article 20.3.4. The **Contractor** shall inform the **City** of any defenses to the notice or demand and shall forward to the **City** any documents the **City** requests concerning the notice or demand.

20.3.7 All demands made against the **City** by a beneficiary of this payment guarantee shall be presented to the **Engineer** along with all written documentation concerning the demand which the **Engineer** deems reasonably appropriate or necessary, which may include, but shall not be limited to: the subcontract; any invoices presented to the **Contractor** for payment; the notarized statement of the beneficiary that the demand is due and payable, that a request for payment has been made of the **Contractor** and that the demand has not been paid by the **Contractor** within the time allowed for such payment by the subcontract; and copies of any correspondence between the beneficiary and the **Contractor** concerning such demand. The **City** shall notify the **Contractor** that a demand has been made. The **Contractor** shall inform the **City** of any defenses to the demand and shall forward to the **City** any documents the **City** requests concerning the demand.

20.3.8 The **City** shall make payment only if, after considering all defenses presented by the **Contractor**, it determines that the payment is due and owing to the beneficiary making the demand.

20.3.9 No beneficiary shall be entitled to interest from the **City**, or to any other costs, including, but not limited to, attorneys' fees, except to the extent required by State Finance Law Section 137.

20.4 Upon the receipt by the **City** of a demand pursuant to this Article 20, the **City** may withhold from any payment otherwise due and owing to the **Contractor** under this **Contract** an amount sufficient to satisfy the demand.

20.4.1 In the event the **City** determines that the demand is valid, the **City** shall notify the **Contractor** of such determination and the amount thereof and direct the **Contractor** to immediately pay such amount to the beneficiary. In the event the **Contractor**, within seven (7) **Days** of receipt of such notification from the **City**, fails to pay the beneficiary, such failure shall constitute an automatic and irrevocable assignment of payment by the **Contractor** to the beneficiary for the amount of the demand determined by the **City** to be valid. The **Contractor**, without further notification or other process, hereby gives its unconditional consent to such assignment of payment to the beneficiary and authorizes the **City**, on its behalf, to take all necessary actions to implement such assignment of payment, including without limitation the execution of any instrument or documentation necessary to effectuate such assignment.

20.4.2 In the event that the amount otherwise due and owing to the **Contractor** by the **City** is insufficient to satisfy such demand, the **City** may, at its option, require payment from the **Contractor** of an amount sufficient to cover such demand and exercise any other right to require or recover payment which the **City** may have under **Law** or **Contract**.

20.4.3 In the event the **City** determines that the demand is invalid, any amount withheld pending the **City's** review of such demand shall be paid to the **Contractor**; provided, however, no lien has been filed. In the event a claim or an action has been filed, the terms and conditions set forth in Article 23 shall apply. In the event a lien has been filed, the parties will be governed by the provisions of the Lien Law of the State of New York.

20.5 The provisions of this Article 20 shall not prevent the **City** and the **Contractor** from resolving disputes in accordance with the **PPB** Rules, where applicable.

20.6 In the event the **City** determines that the beneficiary is entitled to payment pursuant to this Article 20, such determination and any defenses and counterclaims raised by the **Contractor** shall be taken into account in evaluating the **Contractor's** performance.

20.7 Nothing in this Article 20 shall relieve the **Contractor** of the obligation to pay the claims of all persons with valid and lawful claims against the **Contractor** relating to the **Work**.

20.8 The **Contractor** shall not require any performance, payment or other bonds of any **Subcontractor** if this **Contract** does not require such bonds of the **Contractor**.

20.9 The payment guarantee made pursuant to this Article 20 shall be construed in a manner consistent with Section 137 of the State Finance Law and shall afford to persons furnishing labor or materials to the **Contractor** or its **Subcontractors** in the prosecution of the **Work** under this **Contract** all of the rights and remedies afforded to such persons by such section, including but not limited to, the right

to commence an action against the **City** on the payment guarantee provided by this Article 20 within the one-year limitations period set forth in Section 137(4)(b).

ARTICLE 21. RETAINED PERCENTAGE

21.1 If this **Contract** requires one hundred (100%) percent performance and payment security, then as further security for the faithful performance of this **Contract**, the **Commissioner** shall deduct, and retain until the substantial completion of the **Work**, five (5%) percent of the value of **Work** certified for payment in each partial payment voucher.

21.2 If this **Contract** does not require one hundred (100%) percent performance and payment security and if the price for which this **Contract** was awarded does not exceed one million (\$1,000,000) dollars, then as further security for the faithful performance of this **Contract**, the **Commissioner** shall deduct, and retain until the substantial completion of the **Work**, five (5%) percent of the value of **Work** certified for payment in each partial payment voucher.

21.3 If this **Contract** does not require one hundred (100%) percent performance and payment security and if the price for which this **Contract** was awarded exceeds one million (\$1,000,000) dollars, then as further security for the faithful performance of this **Contract**, the **Commissioner** shall deduct, and retain until the substantial completion of the **Work**, up to ten (10%) percent of the value of **Work** certified for payment in each partial payment voucher. The percentage to be retained is set forth in Schedule A of the General Conditions.

ARTICLE 22. INSURANCE

22.1 Types of Insurance: The **Contractor** shall procure and maintain the following types of insurance if, and as indicated, in Schedule A of the General Conditions (with the minimum limits and special conditions specified in Schedule A). Such insurance shall be maintained from the date the **Contractor** is required to provide Proof of Insurance pursuant to Article 22.3.1 through the date of completion of all required **Work** (including punch list work as certified in writing by the **Resident Engineer**), except for insurance required pursuant to Article 22.1.4, which may terminate upon **Substantial Completion** of the **Contract**. All insurance shall meet the requirements set forth in this Article 22. Wherever this Article requires that insurance coverage be "at least as broad" as a specified form (including all ISO forms), there is no obligation that the form itself be used, provided that the **Contractor** can demonstrate that the alternative form or endorsement contained in its policy provides coverage at least as broad as the specified form.

22.1.1 Commercial General Liability Insurance: The **Contractor** shall provide Commercial General Liability Insurance covering claims for property damage and/or bodily injury, including death, which may arise from any of the operations under this **Contract**. Coverage under this insurance shall be at least as broad as that provided by the latest edition of Insurance Services Office ("ISO") Form CG 0001. Such insurance shall be "occurrence" based rather than "claims-made" and include, without limitation, the following types of coverage: premises operations; products and completed operations; contractual liability (including the tort liability of another assumed in a contract); broad form property damage; independent contractors; explosion, collapse and underground (XCU); construction means and methods; and incidental malpractice. Such insurance shall contain a "per project" aggregate limit, as specified in Schedule A, that applies separately to operations under this **Contract**.

22.1.1(a) Such Commercial General Liability Insurance shall name the **City** as an Additional Insured. Coverage for the **City** shall specifically include the **City's** officials and employees, be at least as broad as the latest edition of ISO Form CG 20 10 and provide completed operations coverage at least as broad as the latest edition of ISO Form CG 20 37.

22.1.1(b) Such Commercial General Liability Insurance shall name all other entities designated as additional insureds in Schedule A but only for claims arising from the **Contractor's** operations under this **Contract**, with coverage at least as broad as the latest edition of ISO Form CG 20 26.

22.1.1(c) If the **Work** requires a permit from the Department of Buildings pursuant to 1 RCNY Section 101-08, at http://www.nyc.gov/html/dob/downloads/rules/1_RCNY_101-08.pdf, the **Contractor** shall provide Commercial General Liability Insurance with limits of at least those required by 1 RCNY section 101-08. If the **Work** does not require such a permit, the minimum limits shall be those provided for in Schedule A.

22.1.1(d) If any of the **Work** includes repair of a waterborne vessel owned by or to be delivered to the **City**, such Commercial General Liability shall include, or be endorsed to include, Ship Repairer's Legal Liability Coverage to protect against, without limitation, liability arising from navigation of such vessels prior to delivery to and acceptance by the **City**.

22.1.2 Workers' Compensation Insurance, Employers' Liability Insurance, and Disability Benefits Insurance: The **Contractor** shall provide, and shall cause its **Subcontractors** to provide, Workers Compensation Insurance, Employers' Liability Insurance, and Disability Benefits Insurance in accordance with the **Laws** of the State of New York on behalf of all employees providing services under this **Contract** (except for those employees, if any, for which the **Laws** require insurance only pursuant to Article 22.1.3).

22.1.3 United States Longshoremen's and Harbor Workers Act and/or Jones Act Insurance: If specified in Schedule A of the General Conditions or if required by **Law**, the **Contractor** shall provide insurance in accordance with the United States Longshoremen's and Harbor Workers Act and/or the Jones Act, on behalf of all qualifying employees providing services under this **Contract**.

22.1.4 Builders Risk Insurance: If specified in Schedule A of the General Conditions, the **Contractor** shall provide Builders Risk Insurance on a completed value form for the total value of the **Work** through **Substantial Completion** of the **Work** in its entirety. Such insurance shall be provided on an All Risk basis and include coverage, without limitation, for windstorm (including named windstorm), storm surge, flood and earth movement. Unless waived by the **Commissioner**, it shall include coverage for ordinance and law, demolition and increased costs of construction, debris removal, pollutant clean up and removal, and expediting costs. Such insurance shall cover, without limitation, (a) all buildings and/or structures involved in the **Work**, as well as temporary structures at the **Site**, and (b) any property that is intended to become a permanent part of such building or structure, whether such property is on the **Site**, in transit or in temporary storage. Policies shall name the **Contractor** as Named Insured and list the **City** as both an Additional Insured and a Loss Payee as its interest may appear.

22.1.4(a) Policies of such insurance shall specify that, in the event a loss occurs at an occupied facility, occupancy of such facility is permitted without the consent of the issuing insurance company.

22.1.4(b) Such insurance may be provided through an Installation Floater, at the **Contractor's** option, if it otherwise conforms with the requirements of this Article 22.1.4.

22.1.5 Commercial Automobile Liability Insurance: The **Contractor** shall provide Commercial Automobile Liability Insurance for liability arising out of ownership, maintenance or use of any owned (if any), non-owned and hired vehicles to be used in connection with this **Contract**. Coverage shall be at least as broad as the latest edition of ISO Form CA0001. If vehicles are used for transporting hazardous materials, the Automobile Liability Insurance shall be endorsed to provide pollution liability broadened coverage for covered vehicles (endorsement CA 99 48) as well as proof of MCS 90.

22.1.6 Contractors Pollution Liability Insurance: If specified in Schedule A of the General Conditions, the **Contractor** shall maintain, or cause the **Subcontractor** doing such **Work** to maintain, Contractors Pollution Liability Insurance covering bodily injury and property damage. Such insurance shall provide coverage for actual, alleged or threatened emission, discharge, dispersal, seepage, release or escape of pollutants (including asbestos), including any loss, cost or expense incurred as a result of any cleanup of pollutants (including asbestos) or in the investigation, settlement or defense of any claim, action, or proceedings arising from the operations under this **Contract**. Such insurance shall be in the **Contractor's** name and list the **City** as an Additional Insured and any other entity specified in Schedule A. Coverage shall include, without limitation, (a) loss of use of damaged property or of property that has not been physically injured, (b) transportation, and (c) non-owned disposal sites.

22.1.6(a) Coverage for the **City** as Additional Insured shall specifically include the **City's** officials and employees and be at least as broad as provided to the **Contractor** for this **Project**.

22.1.6(b) If such insurance is written on a claims-made policy, such policy shall have a retroactive date on or before the effective date of this **Contract**, and continuous coverage shall be maintained, or an extended discovery period exercised, for a period of not less than three (3) years from the time the **Work** under this **Contract** is completed.

22.1.7 Marine Insurance:

22.1.7(a) Marine Protection and Indemnity Insurance: If specified in Schedule A of the General Conditions or if the **Contractor** engages in marine operations in the execution of any part of the **Work**, the **Contractor** shall maintain, or cause the **Subcontractor** doing such **Work** to maintain, Marine Protection and Indemnity Insurance with coverage at least as broad as Form SP-23. The insurance shall provide coverage for the **Contractor** or **Subcontractor** (whichever is doing this **Work**) and for the **City** (together with its officials and employees) and any other entity specified in Schedule A as an Additional Insured for bodily injury and property damage arising from marine operations under this **Contract**. Coverage shall include, without limitation, injury or death of crew members (if not fully provided through other insurance), removal of wreck, damage to piers, wharves and other fixed or floating objects and loss of or damage to any other vessel or craft, or to property on such other vessel or craft.

22.1.7(b) Hull and Machinery Insurance: If specified in Schedule A of the General Conditions or if the **Contractor** engages in marine operations in the execution of any part of the **Work**, the **Contractor** shall maintain, or cause the **Subcontractor** doing such **Work** to maintain, Hull and Machinery Insurance with coverage for the **Contractor** or **Subcontractor** (whichever is doing this **Work**) and for the **City** (together with its officials and employees) as Additional Insured at least as broad as the latest edition of American Institute Tug Form for all tugs used under this **Contract** and Collision Liability at least as broad as the latest edition of American Institute Hull Clauses.

22.1.7(c) Marine Pollution Liability Insurance: If specified in Schedule A of the General Conditions or if the **Contractor** engages in marine operations in the execution of any part of the **Work**, the **Contractor** shall maintain, or cause the **Subcontractor** doing such **Work** to maintain, Marine Pollution Liability Insurance covering itself (or the **Subcontractor** doing such **Work**) as Named Insured and the **City** (together with its officials and employees) and any other entity specified in Schedule A as an Additional Insured. Coverage shall be at least as broad as that provided by the latest edition of Water Quality Insurance Syndicate Form and include, without limitation, liability arising from the discharge or substantial threat of a discharge of oil, or from the release or threatened release of a hazardous substance including injury to, or economic losses resulting from, the destruction of or damage to real property, personal property or natural resources.

22.1.8 The **Contractor** shall provide such other types of insurance, at such minimum limits and with such conditions, as are specified in Schedule A of the General Conditions.

22.2 General Requirements for Insurance Coverage and Policies:

22.2.1 All required insurance policies shall be maintained with companies that may lawfully issue the required policy and have an A.M. Best rating of at least A-/VII or a Standard and Poor's rating of at least A, unless prior written approval is obtained from the **City** Corporation Counsel.

22.2.2 The **Contractor** shall be solely responsible for the payment of all premiums for all required policies and all deductibles and self-insured retentions to which such policies are subject, whether or not the **City** is an insured under the policy.

22.2.3 In his/her sole discretion, the **Commissioner** may, subject to the approval of the **Comptroller** and the **City** Corporation Counsel, accept Letters of Credit and/or custodial accounts in lieu of required insurance.

22.2.4 The **City's** limits of coverage for all types of insurance required pursuant to Schedule A of the General Conditions shall be the greater of (i) the minimum limits set forth in Schedule A or (ii) the limits provided to the **Contractor** as Named Insured under all primary, excess, and umbrella policies of that type of coverage.

22.2.5 The **Contractor** may satisfy its insurance obligations under this Article 22 through primary policies or a combination of primary and excess/umbrella policies, so long as all policies provide the scope of coverage required herein.

22.2.6 Policies of insurance provided pursuant to this Article 22 shall be primary and non-contributing to any insurance or self-insurance maintained by the **City**.

22.3 Proof of Insurance:

22.3.1 For all types of insurance required by Article 22.1 and Schedule A, except for insurance required by Articles 22.1.4 and 22.1.7, the **Contractor** shall file proof of insurance in accordance with this Article 22.3 within ten (10) **Days** of award. For insurance provided pursuant to Articles 22.1.4 and 22.1.7, proof shall be filed by a date specified by the **Commissioner** or ten (10) **Days** prior to the commencement of the portion of the **Work** covered by such policy, whichever is earlier.

22.3.2 For Workers' Compensation Insurance provided pursuant to Article 22.1.2, the **Contractor** shall submit one of the following forms: C-105.2 Certificate of Workers' Compensation Insurance; U-26.3 - State Insurance Fund Certificate of Workers' Compensation Insurance; Request for WC/DB Exemption (Form CE-200); equivalent or successor forms used by the New York State Workers' Compensation Board; or other proof of insurance in a form acceptable to the **Commissioner**. For Disability Benefits Insurance provided pursuant to Article 22.1.2, the Contractor shall submit DB-120.1 - Certificate Of Insurance Coverage Under The NYS Disability Benefits Law, Request for WC/DB Exemption (Form CE-200); equivalent or successor forms used by the New York State Workers' Compensation Board; or other proof of insurance in a form acceptable to the **Commissioner**. ACORD forms are not acceptable.

22.3.3 For policies provided pursuant to all of Article 22.1 other than Article 22.1.2, the **Contractor** shall submit one or more Certificates of Insurance on forms acceptable to the **Commissioner**. All such Certificates of Insurance shall certify (a) the issuance and effectiveness of such policies of insurance, each with the specified minimum limits (b) for insurance secured pursuant to Article 22.1.1 that the **City** and any other entity specified in Schedule A is an Additional Insured with coverage at least as broad as the most recent edition of ISO Forms CG 20 10, CG 20 37, and CG 20 26, as applicable; (c) in the event insurance is required pursuant to Article 22.1.6 and/or Article 22.1.7, that the **City** is an Additional Insured thereunder; (d) the company code issued to the insurance company by the National Association of Insurance Commissioners (the NAIC number); and (e) the number assigned to the **Contract** by the **City**. All such Certificates of Insurance shall be accompanied by either a duly executed "Certification by Broker" in the form contained in Part III of Schedule A or copies of all policies referenced in such Certificate of Insurance as certified by an authorized representative of the issuing insurance carrier. If any policy is not available at the time of submission, certified binders may be submitted until such time as the policy is available, at which time a certified copy of the policy shall be submitted.

22.3.4 Documentation confirming renewals of insurance shall be submitted to the **Commissioner** prior to the expiration date of coverage of policies required under this **Contract**. Such proofs of insurance shall comply with the requirements of Articles 22.3.2 and 22.3.3.

22.3.5 The **Contractor** shall be obligated to provide the **City** with a copy of any policy of insurance provided pursuant to this Article 22 upon the demand for such policy by the **Commissioner** or the **City Corporation Counsel**.

22.4 Operations of the Contractor:

22.4.1 The **Contractor** shall not commence the **Work** unless and until all required certificates have been submitted to and accepted by the **Commissioner**. Acceptance by the **Commissioner** of a certificate does not excuse the **Contractor** from securing insurance

consistent with all provisions of this Article 22 or of any liability arising from its failure to do so.

22.4.2 The **Contractor** shall be responsible for providing continuous insurance coverage in the manner, form, and limits required by this **Contract** and shall be authorized to perform **Work** only during the effective period of all required coverage.

22.4.3 In the event that any of the required insurance policies lapse, are revoked, suspended or otherwise terminated, for whatever cause, the **Contractor** shall immediately stop all **Work**, and shall not recommence **Work** until authorized in writing to do so by the **Commissioner**. Upon quitting the **Site**, except as otherwise directed by the **Commissioner**, the **Contractor** shall leave all plant, materials, equipment, tools, and supplies on the **Site**. **Contract** time shall continue to run during such periods and no extensions of time will be granted. The **Commissioner** may also declare the **Contractor** in default for failure to maintain required insurance.

22.4.4 In the event the **Contractor** receives notice, from an insurance company or other person, that any insurance policy required under this Article 22 shall be cancelled or terminated (or has been cancelled or terminated) for any reason, the **Contractor** shall immediately forward a copy of such notice to both the **Commissioner** and the New York City Comptroller, attn: Office of Contract Administration, Municipal Building, One Centre Street, room 1005, New York, New York 10007. Notwithstanding the foregoing, the **Contractor** shall ensure that there is no interruption in any of the insurance coverage required under this Article 22.

22.4.5 Where notice of loss, damage, occurrence, accident, claim or suit is required under an insurance policy maintained in accordance with this Article 22, the **Contractor** shall notify in writing all insurance carriers that issued potentially responsive policies of any such event relating to any operations under this **Contract** (including notice to Commercial General Liability insurance carriers for events relating to the **Contractor**'s own employees) no later than 20 days after such event. For any policy where the **City** is an Additional Insured, such notice shall expressly specify that "this notice is being given on behalf of the City of New York as Insured as well as the Named Insured." Such notice shall also contain the following information: the number of the insurance policy, the name of the named insured, the date and location of the damage, occurrence, or accident, and the identity of the persons or things injured, damaged or lost. The **Contractor** shall simultaneously send a copy of such notice to the City of New York c/o Insurance Claims Specialist, Affirmative Litigation Division, New York City Law Department, 100 Church Street, New York, New York 10007.

22.4.6 In the event of any loss, accident, claim, action, or other event that does or can give rise to a claim under any insurance policy required under this Article 22, the **Contractor** shall at all times fully cooperate with the **City** with regard to such potential or actual claim.

22.5 **Subcontractor Insurance:** In the event the **Contractor** requires any **Subcontractor** to procure insurance with regard to any operations under this **Contract** and requires such **Subcontractor** to name the **Contractor** as an **Additional Insured** thereunder, the **Contractor** shall ensure that the **Subcontractor** name the **City**, including its officials and employees, as an **Additional Insured** with coverage at least as broad as the most recent edition of ISO Form CG 20 26.

22.6 Wherever reference is made in Article 7 or this Article 22 to documents to be sent to the **Commissioner** (e.g., notices, filings, or submissions), such documents shall be sent to the address set forth in Schedule A of the General Conditions. In the event no address is set forth in Schedule A, such documents are to be sent to the **Commissioner**'s address as provided elsewhere in this **Contract**.

22.7 Apart from damages or losses covered by insurance provided pursuant to Articles 22.1.2, 22.1.3, or 22.1.5, the **Contractor** waives all rights against the **City**, including its officials and employees, for any damages or losses that are covered under any insurance required under this Article 22 (whether or not such insurance is actually procured or claims are paid thereunder) or any other insurance applicable to the operations of the **Contractor** and/or its employees, agents, or **Subcontractors**.

22.8 In the event the **Contractor** utilizes a self-insurance program to satisfy any of the requirements of this Article 22, the **Contractor** shall ensure that any such self-insurance program provides the **City** with all rights that would be provided by traditional insurance under this Article 22, including but not limited to the defense and indemnification obligations that insurers are required to undertake in liability policies.

22.9 Materiality/Non-Waiver: The **Contractor's** failure to secure policies in complete conformity with this Article 22, or to give an insurance company timely notice of any sort required in this **Contract** or to do anything else required by this Article 22 shall constitute a material breach of this **Contract**. Such breach shall not be waived or otherwise excused by any action or inaction by the **City** at any time.

22.10 Pursuant to General Municipal Law Section 108, this **Contract** shall be void and of no effect unless **Contractor** maintains Workers' Compensation Insurance for the term of this **Contract** to the extent required and in compliance with the New York State Workers' Compensation Law.

22.11 Other Remedies: Insurance coverage provided pursuant to this Article 22 or otherwise shall not relieve the **Contractor** of any liability under this **Contract**, nor shall it preclude the **City** from exercising any rights or taking such other actions available to it under any other provisions of this **Contract** or **Law**.

ARTICLE 23. MONEY RETAINED AGAINST CLAIMS

23.1 If any claim shall be made by any person or entity (including **Other Contractors** with the **City** on this **Project**) against the **City** or against the **Contractor** and the **City** for any of the following:

- (a) An alleged loss, damage, injury, theft or vandalism of any of the kinds referred to in Articles 7 and 12, plus the reasonable costs of defending the **City**, which in the opinion of the **Comptroller** may not be paid by an insurance company (for any reason whatsoever); or
- (b) An infringement of copyrights, patents or use of patented articles, tools, etc., as referred to in Article 57; or
- (c) Damage claimed to have been caused directly or indirectly by the failure of the **Contractor** to perform the **Work** in strict accordance with this **Contract**,

the amount of such claim, or so much thereof as the **Comptroller** may deem necessary, may be withheld by the **Comptroller**, as security against such claim, from any money due hereunder. The **Comptroller**, in his/her discretion, may permit the **Contractor** to substitute other satisfactory security in lieu of the monies so withheld.

23.2 If an action on such claim is timely commenced and the liability of the **City**, or the **Contractor**, or both, shall have been established therein by a final judgment of a court of competent jurisdiction, or if such claim shall have been admitted by the **Contractor** to be valid, the **Comptroller**

shall pay such judgment or admitted claim out of the monies retained by the **Comptroller** under the provisions of this Article 23, and return the balance, if any, without interest, to the **Contractor**.

ARTICLE 24. MAINTENANCE AND GUARANTY

24.1 The **Contractor** shall promptly repair, replace, restore or rebuild, as the **Commissioner** may determine, any finished **Work** in which defects of materials or workmanship may appear or to which damage may occur because of such defects, during the one (1) year period subsequent to the date of **Substantial Completion** (or use and occupancy in accordance with Article 16), except where other periods of maintenance and guaranty are provided for in Schedule A.

24.2 As security for the faithful performance of its obligations hereunder, the **Contractor**, upon filing its requisition for payment on **Substantial Completion**, shall deposit with the **Commissioner** a sum equal to one (1%) percent of the price (or the amount fixed in Schedule A of the General Conditions) in cash or certified check upon a state or national bank and trust company or a check of such bank and trust company signed by a duly authorized officer thereof and drawn to the order of the **Comptroller**, or obligations of the **City**, which the **Comptroller** may approve as of equal value with the sum so required.

24.3 In lieu of the above, the **Contractor** may make such security payment to the **City** by authorizing the **Commissioner** in writing to deduct the amount from the **Substantial Completion** payment which shall be deemed the deposit required above.

24.4 If the **Contractor** has faithfully performed all of its obligations hereunder the **Commissioner** shall so certify to the **Comptroller** within five (5) **Days** after the expiration of one (1) year from the date of **Substantial Completion** and acceptance of the **Work** or within thirty (30) **Days** after the expiration of the guarantee period fixed in the **Specifications**. The security payment shall be repaid to the **Contractor** without interest within thirty (30) **Days** after certification by the **Commissioner** to the **Comptroller** that the **Contractor** has faithfully performed all of its obligations hereunder.

24.5 Notice by the **Commissioner** to the **Contractor** to repair, replace, rebuild or restore such defective or damaged **Work** shall be timely, pursuant to this article, if given not later than ten (10) **Days** subsequent to the expiration of the one (1) year period or other periods provided for herein.

24.6 If the **Contractor** shall fail to repair, replace, rebuild or restore such defective or damaged **Work** promptly after receiving such notice, the **Commissioner** shall have the right to have the **Work** done by others in the same manner as provided for in the completion of a defaulted **Contract**, under Article 51.

24.7 If the security payment so deposited is insufficient to cover the cost of such **Work**, the **Contractor** shall be liable to pay such deficiency on demand by the **Commissioner**.

24.8 The **Engineer's** certificate setting forth the fair and reasonable cost of repairing, replacing, rebuilding or restoring any damaged or defective **Work** when performed by one other than the **Contractor**, shall be binding and conclusive upon the **Contractor** as to the amount thereof.

24.9 The **Contractor** shall obtain all manufacturers' warranties and guaranties of all equipment and materials required by this **Contract** in the name of the **City** and shall deliver same to the **Commissioner**. All of the **City's** rights and title and interest in and to said manufacturers' warranties and guaranties may be assigned by the **City** to any subsequent purchasers of such equipment and materials or lessees of the premises into which the equipment and materials have been installed.

CHAPTER VI
CHANGES, EXTRA WORK, AND DOCUMENTATION OF CLAIM

ARTICLE 25. CHANGES

25.1 Changes may be made to this **Contract** only as duly authorized in writing by the **Commissioner** in accordance with the **Law** and this **Contract**. All such changes, modifications, and amendments will become a part of the **Contract**. **Work** so ordered shall be performed by the **Contractor**.

25.2 **Contract** changes will be made only for **Work** necessary to complete the **Work** included in the original scope of the **Contract** and/or for non-material changes to the scope of the **Contract**. Changes are not permitted for any material alteration in the scope of **Work** in the **Contract**.

25.3 The **Contractor** shall be entitled to a price adjustment for **Extra Work** performed pursuant to a written change order. Adjustments to price shall be computed in one or more of the following ways:

25.3.1 By applicable unit prices specified in the **Contract**; and/or

25.3.2 By agreement of a fixed price; and/or

25.3.3 By time and material records; and/or

25.3.4 In any other manner approved by the **CCPO**.

25.4 All payments for change orders are subject to pre-audit by the **Engineering Audit Officer** and may be post-audited by the **Comptroller** and/or the **Agency**.

ARTICLE 26. METHODS OF PAYMENT FOR OVERRUNS AND EXTRA WORK

26.1 **Overrun of Unit Price Item**: An overrun is any quantity of a unit price item which the **Contractor** is directed to provide which is in excess of one hundred twenty-five (125%) percent of the estimated quantity for that item set forth in the bid schedule.

26.1.1 For any unit price item, the **Contractor** will be paid at the unit price bid for any quantity up to one hundred twenty-five (125%) percent of the estimated quantity for that item set forth in the bid schedule. If during the progress of the **Work**, the actual quantity of any unit price item required to complete the **Work** approaches the estimated quantity for that item, and for any reason it appears that the actual quantity of any unit price item necessary to complete the **Work** will exceed the estimated quantity for that item by twenty-five (25%) percent, the **Contractor** shall immediately notify the **Engineer** of such anticipated overrun. The **Contractor** shall not be compensated for any quantity of a unit price item provided which is in excess of one hundred twenty-five (125%) percent of the estimated quantity for that item set forth in the bid schedule without written authorization from the **Engineer**.

26.1.2 If the actual quantity of any unit price item necessary to complete the **Work** will exceed one hundred twenty five (125%) percent of the estimated quantity for that item set forth in the bid schedule, the **City** reserves the right and the **Contractor** agrees to negotiate a new unit price for such item. In no event shall such negotiated new unit price exceed the unit bid price. If the **City** and **Contractor** cannot agree on a new unit price, then the **City** shall order the **Contractor** and the **Contractor** agrees to provide additional quantities of the

item on the basis of time and material records for the actual and reasonable cost as determined under Article 26.2, but in no event at a unit price exceeding the unit price bid.

26.2 Extra Work: For **Extra Work** where payment is by agreement on a fixed price in accordance with Article 25.3.2, the price to be paid for such **Extra Work** shall be based on the fair and reasonable estimated cost of the items set forth below. For **Extra Work** where payment is based on time and material records in accordance with Article 25.3.3, the price to be paid for such **Extra Work** shall be the actual and reasonable cost of the items set forth below, calculated in accordance with the formula specified therein, if any.

26.2.1 Necessary materials (including transportation to the **Site**); plus

26.2.2 Necessary direct labor, including payroll taxes (subject to statutory wage caps) and supplemental benefits; plus

26.2.3 Sales and personal property taxes, if any, required to be paid on materials not incorporated into such **Extra Work**; plus

26.2.4 Reasonable rental value of **Contractor**-owned (or **Subcontractor**-owned, as applicable), necessary plant and equipment other than **Small Tools**, plus fuel/energy costs. Except for fuel costs for pick-up trucks which shall be reimbursed based on a consumption of five (5) gallons per shift, fuel costs shall be reimbursed based on actual costs or, in the absence of auditable documentation, the following fuel consumption formula per operating hour: $(.035) \times (\text{HP rating}) \times (\text{Fuel cost/gallon})$. Reasonable rental value is defined as the lower of either seventy-five percent of the monthly prorated rental rates established in "The AED Green Book, Rental Rates and Specifications for Construction Equipment" published by Equipment Watch (the "Green Book"), or seventy-five percent of the monthly prorated rental rates established in the "Rental Rate Blue Book for Construction Equipment" published by Equipment Watch (the "Blue Book") (the applicable Blue Book rate being for rental only without the addition of any operational costs listed in the Blue Book). The reasonable rental value is deemed to be inclusive of all operating costs except for fuel/energy consumption and equipment operator's wages/costs. For multiple shift utilization, reimbursement shall be calculated as follows: first shift shall be seventy-five (75%) percent of such rental rates; second shift shall be sixty (60%) percent of the first shift rate; and third shift shall be forty (40%) percent of the first shift rate. Equipment on standby shall be reimbursed at one-third (1/3) the prorated monthly rental rate. **Contractor**-owned (or **Subcontractor**-owned, as applicable) equipment includes equipment from rental companies affiliated with or controlled by the **Contractor** (or **Subcontractor**, as applicable), as determined by the **Commissioner**. In establishing cost reimbursement for non-operating **Contractor**-owned (or **Subcontractor**-owned, as applicable) equipment (scaffolding, sheeting systems, road plates, etc.), the **City** may restrict reimbursement to a purchase-salvage/life cycle basis if less than the computed rental costs; plus

26.2.5 Necessary installation and dismantling of such plant and equipment, including transportation to and from the **Site**, if any, provided that, in the case of non-**Contractor**-owned (or non-**Subcontractor**-owned, as applicable) equipment rented from a third party, the cost of installation and dismantling are not allowable if such costs are included in the rental rate; plus

26.2.6 Necessary fees charged by governmental entities; plus

26.2.7 Necessary construction-related service fees charged by non-governmental entities, such as landfill tipping fees; plus

26.2.8 Reasonable rental costs of non-**Contractor**-owned (or non-**Subcontractor**-owned, as applicable) necessary plant and equipment other than **Small Tools**, plus fuel/energy costs. Except for fuel costs for pick-up trucks which shall be reimbursed based on a consumption of five (5) gallons per shift, fuel costs shall be reimbursed based on actual costs or, in the absence of auditable documentation, the following fuel consumption formula per hour of operation: $(.035) \times (\text{HP rating}) \times (\text{Fuel cost/gallon})$. In lieu of renting, the **City** reserves the right to direct the purchase of non-operating equipment (scaffolding, sheeting systems, road plates, etc.), with payment on a purchase-salvage/life cycle basis, if less than the projected rental costs; plus

26.2.9 Workers' Compensation Insurance, and any insurance coverage expressly required by the **City** for the performance of the **Extra Work** which is different than the types of insurance required by Article 22 and Schedule A of the General Conditions. The cost of Workers' Compensation Insurance is subject to applicable payroll limitation caps and shall be based upon the carrier's Manual Rate for such insurance derived from the applicable class Loss Cost ("LC") and carrier's Lost Cost Multiplier ("LCM") approved by the New York State Department of Financial Services, and with the exception of experience rating, rate modifiers as promulgated by the New York Compensation Insurance Rating Board ("NYCIRB"); plus

26.2.10 Additional costs incurred as a result of the **Extra Work** for performance and payment bonds; plus

26.2.11 Twelve percent (12%) percent of the total of items in Articles 26.2.1 through 26.2.5 as compensation for overhead, except that no percentage for overhead will be allowed on **Payroll Taxes** or on the premium portion of overtime pay or on sales and personal property taxes. Overhead shall include without limitation, all costs and expenses in connection with administration, management superintendence, small tools, and insurance required by Schedule A of the General Conditions other than Workers' Compensation Insurance; plus

26.2.12 Ten (10%) percent of the total of items in Articles 26.2.1 through 26.2.5, plus the items in Article 26.2.11, as compensation for profit, except that no percentage for profit will be allowed on **Payroll Taxes** or on the premium portion of overtime pay or on sales and personal property taxes; plus

26.2.13 Five (5%) percent of the total of items in Articles 26.2.6 through 26.2.10 as compensation for overhead and profit.

26.3 Where the **Extra Work** is performed in whole or in part by other than the **Contractor's** own forces pursuant to Article 26.2, the **Contractor** shall be paid, subject to pre-audit by the **Engineering Audit Officer**, the cost of such **Work** computed in accordance with Article 26.2 above, plus an additional allowance of five (5%) percent to cover the **Contractor's** overhead and profit.

26.4 Where a change is ordered, involving both **Extra Work** and omitted or reduced **Contract Work**, the **Contract** price shall be adjusted, subject to pre-audit by the **EAO**, in an amount based on the difference between the cost of such **Extra Work** and of the omitted or reduced **Work**.

26.5 Where the **Contractor** and the **Commissioner** can agree upon a fixed price for **Extra Work** in accordance with Article 25.3.2 or another method of payment for **Extra Work** in accordance with Article

25.3.4, or for **Extra Work** ordered in connection with omitted **Work**, such method, subject to pre-audit by the **EAO**, may, at the option of the **Commissioner**, be substituted for the cost plus a percentage method provided in Article 26.2; provided, however, that if the **Extra Work** is performed by a **Subcontractor**, the **Contractor** shall not be entitled to receive more than an additional allowance of five (5%) percent for overhead and profit over the cost of such **Subcontractor's Work** as computed in accordance with Article 26.2.

ARTICLE 27. RESOLUTION OF DISPUTES

27.1 All disputes between the **City** and the **Contractor** of the kind delineated in this Article 27.1 that arise under, or by virtue of, this **Contract** shall be finally resolved in accordance with the provisions of this Article 27 and the **PPB** Rules. This procedure for resolving all disputes of the kind delineated herein shall be the exclusive means of resolving any such disputes.

27.1.1 This Article 27 shall not apply to disputes concerning matters dealt with in other sections of the **PPB** Rules, or to disputes involving patents, copyrights, trademarks, or trade secrets (as interpreted by the courts of New York State) relating to proprietary rights in computer software.

27.1.2 This Article 27 shall apply only to disputes about the scope of **Work** delineated by the **Contract**, the interpretation of **Contract** documents, the amount to be paid for **Extra Work** or disputed work performed in connection with the **Contract**, the conformity of the **Contractor's Work** to the **Contract**, and the acceptability and quality of the **Contractor's Work**; such disputes arise when the **Engineer**, **Resident Engineer**, **Engineering Audit Officer**, or other designee of the **Commissioner** makes a determination with which the **Contractor** disagrees.

27.2 All determinations required by this Article 27 shall be made in writing clearly stated, with a reasoned explanation for the determination based on the information and evidence presented to the party making the determination. Failure to make such determination within the time required by this Article 27 shall be deemed a non-determination without prejudice that will allow application to the next level.

27.3 During such time as any dispute is being presented, heard, and considered pursuant to this Article 27, the **Contract** terms shall remain in force and the **Contractor** shall continue to perform **Work** as directed by the **ACCO** or the **Engineer**. Failure of the **Contractor** to continue **Work** as directed shall constitute a waiver by the **Contractor** of its claim.

27.4 Presentation of Disputes to **Commissioner**.

Notice of Dispute and Agency Response. The **Contractor** shall present its dispute in writing ("Notice of Dispute") to the **Commissioner** within thirty (30) Days of receiving written notice of the determination or action that is the subject of the dispute. This notice requirement shall not be read to replace any other notice requirements contained in the **Contract**. The Notice of Dispute shall include all the facts, evidence, documents, or other basis upon which the **Contractor** relies in support of its position, as well as a detailed computation demonstrating how any amount of money claimed by the **Contractor** in the dispute was arrived at. Within thirty (30) Days after receipt of the detailed written submission comprising the complete Notice of Dispute, the **Engineer**, **Resident Engineer**, **Engineering Audit Officer**, or other designee of the **Commissioner** shall submit to the **Commissioner** all materials he or she deems pertinent to the dispute. Following initial submissions to the **Commissioner**, either party may demand of the other the production of any document or other material the demanding party believes may be relevant to the dispute. The requested party shall produce all relevant materials that are not otherwise

protected by a legal privilege recognized by the courts of New York State. Any question of relevancy shall be determined by the **Commissioner** whose decision shall be final. Willful failure of the **Contractor** to produce any requested material whose relevancy the **Contractor** has not disputed, or whose relevancy has been affirmatively determined, shall constitute a waiver by the **Contractor** of its claim.

27.4.1 **Commissioner Inquiry.** The **Commissioner** shall examine the material and may, in his or her discretion, convene an informal conference with the **Contractor**, the **ACCO**, and the **Engineer, Resident Engineer, Engineering Audit Officer**, or other designee of the **Commissioner** to resolve the issue by mutual consent prior to reaching a determination. The **Commissioner** may seek such technical or other expertise as he or she shall deem appropriate, including the use of neutral mediators, and require any such additional material from either or both parties as he or she deems fit. The **Commissioner's** ability to render, and the effect of, a decision hereunder shall not be impaired by any negotiations in connection with the dispute presented, whether or not the **Commissioner** participated therein. The **Commissioner** may or, at the request of any party to the dispute, shall compel the participation of any **Other Contractor** with a contract related to the **Work** of this **Contract**, and that **Contractor** shall be bound by the decision of the **Commissioner**. Any **Other Contractor** thus brought into the dispute resolution proceeding shall have the same rights and obligations under this Article 27 as the **Contractor** initiating the dispute.

27.4.2 **Commissioner Determination.** Within thirty (30) **Days** after the receipt of all materials and information, or such longer time as may be agreed to by the parties, the **Commissioner** shall make his or her determination and shall deliver or send a copy of such determination to the **Contractor**, the **ACCO**, and **Engineer, Resident Engineer, Engineering Audit Officer**, or other designee of the **Commissioner**, as applicable, together with a statement concerning how the decision may be appealed.

27.4.3 **Finality of Commissioner's Decision.** The **Commissioner's** decision shall be final and binding on all parties, unless presented to the Contract Dispute Resolution Board pursuant to this Article 27. The **City** may not take a petition to the Contract Dispute Resolution Board. However, should the **Contractor** take such a petition, the **City** may seek, and the Contract Dispute Resolution Board may render, a determination less favorable to the **Contractor** and more favorable to the **City** than the decision of the **Commissioner**.

27.5 **Presentation of Dispute to the Comptroller.** Before any dispute may be brought by the **Contractor** to the Contract Dispute Resolution Board, the **Contractor** must first present its claim to the **Comptroller** for his or her review, investigation, and possible adjustment.

27.5.1 **Time, Form, and Content of Notice.** Within thirty (30) **Days** of its receipt of a decision by the **Commissioner**, the **Contractor** shall submit to the **Comptroller** and to the **Commissioner** a Notice of Claim regarding its dispute with the **Agency**. The Notice of Claim shall consist of (i) a brief written statement of the substance of the dispute, the amount of money, if any, claimed and the reason(s) the **Contractor** contends the dispute was wrongly decided by the **Commissioner**; (ii) a copy of the written decision of the **Commissioner**; and (iii) a copy of all materials submitted by the **Contractor** to the **Agency**, including the Notice of Dispute. The **Contractor** may not present to the **Comptroller** any material not presented to the **Commissioner**, except at the request of the **Comptroller**.

27.5.2 **Response.** Within thirty (30) **Days** of receipt of the Notice of Claim, the **Agency** shall make available to the **Comptroller** a copy of all material submitted by the **Agency** to the **Commissioner** in connection with the dispute. The **Agency** may not present to the

Comptroller any material not presented to the **Commissioner** except at the request of the **Comptroller**.

27.5.3 **Comptroller Investigation.** The **Comptroller** may investigate the claim in dispute and, in the course of such investigation, may exercise all powers provided in Sections 7-201 and 7-203 of the Administrative Code. In addition, the **Comptroller** may demand of either party, and such party shall provide, whatever additional material the **Comptroller** deems pertinent to the claim, including original business records of the **Contractor**. Willful failure of the **Contractor** to produce within fifteen (15) **Days** any material requested by the **Comptroller** shall constitute a waiver by the **Contractor** of its claim. The **Comptroller** may also schedule an informal conference to be attended by the **Contractor**, **Agency** representatives, and any other personnel desired by the **Comptroller**.

27.5.4 **Opportunity of Comptroller to Compromise or Adjust Claim.** The **Comptroller** shall have forty-five (45) **Days** from his or her receipt of all materials referred to in Article 27.5.3 to investigate the disputed claim. The period for investigation and compromise may be further extended by agreement between the **Contractor** and the **Comptroller**, to a maximum of ninety (90) **Days** from the **Comptroller's** receipt of all materials. The **Contractor** may not present its petition to the Contract Dispute Resolution Board until the period for investigation and compromise delineated in this Article 27.5.4 has expired. In compromising or adjusting any claim hereunder, the **Comptroller** may not revise or disregard the terms of the **Contract** between the parties.

27.6 **Contract Dispute Resolution Board.** There shall be a Contract Dispute Resolution Board composed of:

27.6.1 The chief administrative law judge of the Office of Administrative Trials and Hearings (OATH) or his/her designated OATH administrative law judge, who shall act as chairperson, and may adopt operational procedures and issue such orders consistent with this Article 27 as may be necessary in the execution of the Contract Dispute Resolution Board's functions, including, but not limited to, granting extensions of time to present or respond to submissions;

27.6.2 The **CCPO** or his/her designee; any designee shall have the requisite background to consider and resolve the merits of the dispute and shall not have participated personally and substantially in the particular matter that is the subject of the dispute or report to anyone who so participated; and

27.6.3 A person with appropriate expertise who is not an employee of the **City**. This person shall be selected by the presiding administrative law judge from a prequalified panel of individuals, established and administered by OATH with appropriate background to act as decision-makers in a dispute. Such individual may not have a contract or dispute with the **City** or be an officer or employee of any company or organization that does, or regularly represents persons, companies, or organizations having disputes with the **City**.

27.7 **Petition to the Contract Dispute Resolution Board.** In the event the claim has not been settled or adjusted by the **Comptroller** within the period provided in this Article 27, the **Contractor**, within thirty (30) **Days** thereafter, may petition the Contract Dispute Resolution Board to review the **Commissioner's** determination.

27.7.1 **Form and Content of Petition by Contractor.** The **Contractor** shall present its dispute to the Contract Dispute Resolution Board in the form of a petition, which shall

include (i) a brief written statement of the substance of the dispute, the amount of money, if any, claimed, and the reason(s) the **Contractor** contends the dispute was wrongly decided by the **Commissioner**; (ii) a copy of the written Decision of the **Commissioner**, (iii) copies of all materials submitted by the **Contractor** to the Agency; (iv) a copy of the written decision of the **Comptroller**, if any, and (v) copies of all correspondence with, or written material submitted by the **Contractor**, to the **Comptroller**. The **Contractor** shall concurrently submit four (4) complete sets of the Petition: one set to the City Corporation Counsel (Attn: Commercial and Real Estate Litigation Division) and three (3) sets to the Contract Dispute Resolution Board at OATH's offices with proof of service on the City Corporation Counsel. In addition, the **Contractor** shall submit a copy of the written statement of the substance of the dispute, cited in (i) above, to both the **Commissioner** and the **Comptroller**.

27.7.2 Agency Response. Within thirty (30) **Days** of its receipt of the Petition by the City Corporation Counsel, the **Agency** shall respond to the brief written statement of the **Contractor** and make available to the Contract Dispute Resolution Board all material it submitted to the **Commissioner** and **Comptroller**. Three (3) complete copies of the **Agency** response shall be provided to the Contract Dispute Resolution Board and one to the **Contractor**. Extensions of time for submittal of the **Agency** response shall be given as necessary upon a showing of good cause or, upon consent of the parties, for an initial period of up to thirty (30) **Days**.

27.7.3 Further Proceedings. The Contract Dispute Resolution Board shall permit the **Contractor** to present its case by submission of memoranda, briefs, and oral argument. The Contract Dispute Resolution Board shall also permit the **Agency** to present its case in response to the **Contractor** by submission of memoranda, briefs, and oral argument. If requested by the City Corporation Counsel, the **Comptroller** shall provide reasonable assistance in the preparation of the **Agency's** case. Neither the **Contractor** nor the **Agency** may support its case with any documentation or other material that was not considered by the **Comptroller**, unless requested by the Contract Dispute Resolution Board. The Contract Dispute Resolution Board, in its discretion, may seek such technical or other expert advice as it shall deem appropriate and may seek, on its own or upon application of a party, any such additional material from any party as it deems fit. The Contract Dispute Resolution Board, in its discretion, may combine more than one dispute between the parties for concurrent resolution.

27.7.4 Contract Dispute Resolution Board Determination. Within forty-five (45) **Days** of the conclusion of all written submissions and oral arguments, the Contract Dispute Resolution Board shall render a written decision resolving the dispute. In an unusually complex case, the Contract Dispute Resolution Board may render its decision in a longer period, not to exceed ninety (90) **Days**, and shall so advise the parties at the commencement of this period. The Contract Dispute Resolution Board's decision must be consistent with the terms of the **Contract**. Decisions of the Contract Dispute Resolution Board shall only resolve matters before the Contract Dispute Resolution Board and shall not have precedential effect with respect to matters not before the Contract Dispute Resolution Board.

27.7.5 Notification of Contract Dispute Resolution Board Decision. The Contract Dispute Resolution Board shall send a copy of its decision to the **Contractor**, the **ACCO**, the Engineer, the **Comptroller**, the City Corporation Counsel, the **CCPO**, and the **PPB**. A decision in favor of the **Contractor** shall be subject to the prompt payment provisions of the **PPB Rules**. The Required Payment Date shall be thirty (30) **Days** after the date the parties are formally notified of the Contract Dispute Resolution Board's decision.

27.7.6 Finality of Contract Dispute Resolution Board Decision. The Contract Dispute Resolution

Board's decision shall be final and binding on all parties. Any party may seek review of the Contract Dispute Resolution Board's decision solely in the form of a challenge, filed within four (4) months of the date of the Contract Dispute Resolution Board's decision, in a court of competent jurisdiction of the State of New York, County of New York pursuant to Article 78 of the Civil Practice Law and Rules. Such review by the court shall be limited to the question of whether or not the Contract Dispute Resolution Board's decision was made in violation of lawful procedure, was affected by an error of Law, or was arbitrary and capricious or an abuse of discretion. No evidence or information shall be introduced or relied upon in such proceeding that was not presented to the Contract Dispute Resolution Board in accordance with this Article 27.

27.8 Any termination, cancellation, or alleged breach of the Contract prior to or during the pendency of any proceedings pursuant to this Article 27 shall not affect or impair the ability of the Commissioner or Contract Dispute Resolution Board to make a binding and final decision pursuant to this Article 27.

ARTICLE 28. RECORD KEEPING FOR EXTRA OR DISPUTED WORK OR WORK ON A TIME & MATERIALS BASIS

28.1 While the Contractor or any of its Subcontractors is performing Work on a time and material basis or Extra Work on a time and material basis ordered by the Commissioner under Article 25, or where the Contractor believes that it or any of its Subcontractors is performing Extra Work but a final determination by Agency has not been made, or the Contractor or any of its Subcontractors is performing disputed Work (whether on or off the Site), or complying with a determination or order under protest in accordance with Articles 11, 27, and 30, in each such case the Contractor shall furnish the Resident Engineer daily with three (3) copies of written statements signed by the Contractor's representative at the Site showing:

28.1.1 The name, trade, and number of each worker employed on such Work or engaged in complying with such determination or order, the number of hours employed, and the character of the Work each is doing; and

28.1.2 The nature and quantity of any materials, plant and equipment furnished or used in connection with the performance of such Work or compliance with such determination or order, and from whom purchased or rented.

28.2 A copy of such statement will be countersigned by the Resident Engineer, noting thereon any items not agreed to or questioned, and will be returned to the Contractor within two (2) Days after submission.

28.3 The Contractor and its Subcontractors, when required by the Commissioner, or the Comptroller, shall also produce for inspection, at the office of the Contractor or Subcontractor, any and all of its books, bid documents, financial statements, vouchers, records, daily job diaries and reports, and cancelled checks, and any other documents relating to showing the nature and quantity of the labor, materials, plant and equipment actually used in the performance of such Work, or in complying with such determination or order, and the amounts expended therefor, and shall permit the Commissioner and the Comptroller to make such extracts therefrom, or copies thereof, as they or either of them may desire.

28.4 In connection with the examination provided for herein, the Commissioner, upon demand therefor, will produce for inspection by the Contractor such records as the Agency may have with

respect to such **Extra Work** or disputed **Work** performed under protest pursuant to order of the **Commissioner**, except those records and reports which may have been prepared for the purpose of determining the accuracy and validity of the **Contractor's** claim.

28.5 Failure to comply strictly with these requirements shall constitute a waiver of any claim for extra compensation or damages on account of the performance of such **Work** or compliance with such determination or order.

ARTICLE 29. OMITTED WORK

29.1 If any **Contract Work** in a lump sum **Contract**, or if any part of a lump sum item in a unit price, lump sum, or percentage-bid **Contract** is omitted by the **Commissioner** pursuant to Article 33, the **Contract** price, subject to audit by the EAO, shall be reduced by a pro rata portion of the lump sum bid amount based upon the percent of **Work** omitted subject to Article 29.4. For the purpose of determining the pro rata portion of the lump sum bid amount, the bid breakdown submitted in accordance with Article 41 shall be considered, but shall not be the determining factor.

29.2 If the whole of a lump sum item or units of any other item is so omitted by the **Commissioner** in a unit price, lump sum, or percentage-bid **Contract**, then no payment will be made therefor except as provided in Article 29.4.

29.3 For units that have been ordered but are only partially completed, the unit price shall be reduced by a pro rata portion of the unit price bid based upon the percentage of **Work** omitted subject to Article 29.4.

29.4 In the event the **Contractor**, with respect to any omitted **Work**, has purchased any non-cancelable material and/or equipment that is not capable of use except in the performance of this **Contract** and has been specifically fabricated for the sole purpose of this **Contract**, but not yet incorporated into the **Work**, the **Contractor** shall be paid for such material and/or equipment in accordance with Article 64.2.1(b); provided, however, such payment is contingent upon the **Contractor's** delivery of such material and/or equipment in acceptable condition to a location designated by the **City**.

29.5 The **Contractor** agrees to make no claim for damages or for loss of overhead and profit with regard to any omitted **Work**.

ARTICLE 30. NOTICE AND DOCUMENTATION OF COSTS AND DAMAGES: PRODUCTION OF FINANCIAL RECORDS

30.1 If the **Contractor** shall claim to be sustaining damages by reason of any act or omission of the **City** or its agents, it shall submit to the **Commissioner** within forty-five (45) **Days** from the time such damages are first incurred, and every thirty (30) **Days** thereafter for as long as such damages are incurred, verified statements of the details and the amounts of such damages, together with documentary evidence of such damages. The **Contractor** may submit any of the above statements within such additional time as may be granted by the **Commissioner** in writing upon written request therefor. Failure of the **Commissioner** to respond in writing to a written request for additional time within thirty (30) **Days** shall be deemed a denial of the request. On failure of the **Contractor** to strictly comply with the foregoing provisions, such claims shall be deemed waived and no right to recover on such claims shall exist. Damages that the **Contractor** may claim in any action or dispute resolution procedure arising under or by reason of this **Contract** shall not be different from or in excess of the statements and documentation made pursuant to this Article 30.

30.2 In addition to the foregoing statements, the **Contractor** shall, upon notice from the **Commissioner**, produce for examination at the **Contractor's** office, by the **Engineer, Architect or Project Manager**, all of its books of account, bills, invoices, payrolls, subcontracts, time books, daily reports, bank deposit books, bank statements, check books, and cancelled checks, showing all of its acts and transactions in connection with or relating to or arising by reason of this **Contract**, and submit itself and persons in its employment, for examination under oath by any person designated by the **Commissioner** or **Comptroller** to investigate claims made or disputes against the **City** under this **Contract**. At such examination, a duly authorized representative of the **Contractor** may be present.

30.3 In addition to the statements required under Article 28 and this Article 30, the **Contractor** and/or its **Subcontractor** shall, within thirty (30) **Days** upon notice from the **Commissioner** or **Comptroller**, produce for examination at the **Contractor's** and/or **Subcontractor's** office, by a representative of either the **Commissioner** or **Comptroller**, all of its books of account, bid documents, financial statements, accountant workpapers, bills, invoices, payrolls, subcontracts, time books, daily reports, bank deposit books, bank statements, check books, and cancelled checks, showing all of its acts and transactions in connection with or relating to or arising by reason of this **Contract**. Further, the **Contractor** and/or its **Subcontractor** shall submit any person in its employment, for examination under oath by any person designated by the **Commissioner** or **Comptroller** to investigate claims made or disputes against the **City** under this **Contract**. At such examination, a duly authorized representative of the **Contractor** may be present.

30.4 Unless the information and examination required under Article 30.3 is provided by the **Contractor** and/or its **Subcontractor** upon thirty (30) **Days'** notice from the **Commissioner** or **Comptroller**, or upon the **Commissioner's** or **Comptroller's** written authorization to extend the time to comply, the **City** shall be released from all claims arising under, relating to or by reason of this **Contract**, except for sums certified by the **Commissioner** to be due under the provisions of this **Contract**. It is further stipulated and agreed that no person has the power to waive any of the foregoing provisions and that in any action or dispute resolution procedure against the **City** to recover any sum in excess of the sums certified by the **Commissioner** to be due under or by reason of this **Contract**, the **Contractor** must allege in its complaint and prove, at trial or during such dispute resolution procedure, compliance with the provisions of this Article 30.

30.5 In addition, after the commencement of any action or dispute resolution procedure by the **Contractor** arising under or by reason of this **Contract**, the **City** shall have the right to require the **Contractor** to produce for examination under oath, up until the trial of the action or hearing before the Contract Dispute Resolution Board, the books and documents described in Article 30.3 and submit itself and all persons in its employ for examination under oath. If this Article 30 is not complied with as required, then the **Contractor** hereby consents to the dismissal of the action or dispute resolution procedure.

CHAPTER VII
POWERS OF THE RESIDENT ENGINEER,
THE ENGINEER OR ARCHITECT AND THE COMMISSIONER

ARTICLE 31. THE RESIDENT ENGINEER

31.1 The **Resident Engineer** shall have the power to inspect, supervise, and control the performance of the **Work**, subject to review by the **Commissioner**. The **Resident Engineer** shall not, however, have the power to issue an **Extra Work** order, except as specifically designated in writing by the **Commissioner**.

ARTICLE 32. THE ENGINEER OR ARCHITECT OR PROJECT MANAGER

32.1 The **Engineer** or **Architect** or **Project Manager**, in addition to those matters elsewhere herein delegated to the **Engineer** and expressly made subject to his/her determination, direction or approval, shall have the power, subject to review by the **Commissioner**:

32.1.1 To determine the amount, quality, and location of the **Work** to be paid for hereunder; and

32.1.2 To determine all questions in relation to the **Work**, to interpret the **Contract Drawings, Specifications, and Addenda**, and to resolve all patent inconsistencies or ambiguities therein; and

32.1.3 To determine how the **Work** of this **Contract** shall be coordinated with **Work** of **Other Contractors** engaged simultaneously on this **Project**, including the power to suspend any part of the **Work**, but not the whole thereof; and

32.1.4 To make minor changes in the **Work** as he/she deems necessary, provided such changes do not result in a net change in the cost to the **City** or to the **Contractor** of the **Work** to be done under the **Contract**; and

32.1.5 To amplify the **Contract Drawings**, add explanatory information and furnish additional **Specifications** and drawings, consistent with this **Contract**.

32.2 The foregoing enumeration shall not imply any limitation upon the power of the **Engineer** or **Architect** or **Project Manager**, for it is the intent of this **Contract** that all of the **Work** shall generally be subject to his/her determination, direction, and approval, except where the determination, direction or approval of someone other than the **Engineer** or **Architect** or **Project Manager** is expressly called for herein.

32.3 The **Engineer** or **Architect** or **Project Manager** shall not, however, have the power to issue an **Extra Work** order, except as specifically designated in writing by the **Commissioner**.

ARTICLE 33. THE COMMISSIONER

33.1 The **Commissioner**, in addition to those matters elsewhere herein expressly made subject to his/her determination, direction or approval, shall have the power:

33.1.1 To review and make determinations on any and all questions in relation to this **Contract** and its performance; and

33.1.2 To modify or change this **Contract** so as to require the performance of **Extra Work** (subject, however, to the limitations specified in Article 25) or the omission of **Contract Work**; and

33.1.3 To suspend the whole or any part of the **Work** whenever in his/her judgment such suspension is required:

33.1.3(a) In the interest of the **City** generally; or

33.1.3(b) To coordinate the **Work** of the various contractors engaged on this **Project** pursuant to the provisions of Article 12; or

33.1.3(c) To expedite the completion of the entire **Project** even though the completion of this particular **Contract** may thereby be delayed.

ARTICLE 34. NO ESTOPPEL

34.1 Neither the **City** nor any **Agency**, official, agent or employee thereof, shall be bound, precluded or estopped by any determination, decision, approval, order, letter, payment or certificate made or given under or in connection with this **Contract** by the **City**, the **Commissioner**, the **Engineer**, the **Resident Engineer**, or any other official, agent or employee of the **City**, either before or after the final completion and acceptance of the **Work** and payment therefor:

34.1.1 From showing the true and correct classification, amount, quality or character of the **Work** actually done; or that any such determination, decision, order, letter, payment or certificate was untrue, incorrect or improperly made in any particular, or that the **Work**, or any part thereof, does not in fact conform to the requirements of this **Contract**; and

34.1.2 From demanding and recovering from the **Contractor** any overpayment made to it, or such damages as the **City** may sustain by reason of the **Contractor's** failure to perform each and every part of its **Contract**.

CHAPTER VIII LABOR PROVISIONS

ARTICLE 35. EMPLOYEES

35.1 The **Contractor** and its **Subcontractors** shall not employ on the **Work**:

35.1.1 Anyone who is not competent, faithful and skilled in the **Work** for which he/she shall be employed; and whenever the **Commissioner** shall inform the **Contractor**, in writing, that any employee is, in his/her opinion, incompetent, unfaithful or disobedient, that employee shall be discharged from the **Work** forthwith, and shall not again be employed upon it; or

35.1.2 Any labor, materials or means whose employment, or utilization during the course of this **Contract**, may tend to or in any way cause or result in strikes, work stoppages, delays, suspension of **Work** or similar troubles by workers employed by the **Contractor** or its **Subcontractors**, or by any of the trades working in or about the buildings and premises where **Work** is being performed under this **Contract**, or by **Other Contractors** or their **Subcontractors** pursuant to other contracts, or on any other building or premises owned or operated by the **City**, its **Agencies**, departments, boards or authorities. Any violation by the **Contractor** of this requirement may, upon certification of the **Commissioner**, be considered as proper and sufficient cause for declaring the **Contractor** to be in default, and for the **City** to take action against it as set forth in Chapter X of this **Contract**, or such other article of this **Contract** as the **Commissioner** may deem proper; or

35.1.3 In accordance with Section 220.3-e of the Labor Law of the State of New York (hereinafter "Labor Law"), the **Contractor** and its **Subcontractors** shall not employ on the **Work** any apprentice, unless he/she is a registered individual, under a bona fide program

registered with the New York State Department of Labor. The allowable ratio of apprentices to journey-level workers in any craft classification shall not be greater than the ratio permitted to the **Contractor** as to its work force on any job under the registered program. Any employee listed on a payroll at an apprentice wage rate, who is not registered as above, shall be paid the wage rate determined by the **Comptroller of the City** for the classification of **Work** actually performed. The **Contractor** or **Subcontractor** will be required to furnish written evidence of the registration of its program and apprentices as well as all the appropriate ratios and wage rates, for the area of the construction prior to using any apprentices on the **Contract Work**.

35.2 If the total cost of the **Work** under this **Contract** is at least two hundred fifty thousand (\$250,000) dollars, all laborers, workers, and mechanics employed in the performance of the **Contract** on the public work site, either by the **Contractor**, **Subcontractor** or other person doing or contracting to do the whole or a part of the **Work** contemplated by the **Contract**, shall be certified prior to performing any **Work** as having successfully completed a course in construction safety and health approved by the United States Department of Labor's Occupational Safety and Health Administration that is at least ten (10) hours in duration.

35.3 In accordance with Local Law Nos. 30-2012 and 33-2012, codified at sections 6-132 and 12-113 of the Administrative Code, respectively,

35.3.1 The **Contractor** shall not take an adverse personnel action with respect to an officer or employee in retaliation for such officer or employee making a report of information concerning conduct which such officer or employee knows or reasonably believes to involve corruption, criminal activity, conflict of interest, gross mismanagement or abuse of authority by any officer or employee relating to this **Contract** to (a) the Commissioner of the Department of Investigation, (b) a member of the New York City Council, the Public Advocate, or the **Comptroller**, or (c) the **CCPO**, **ACCO**, **Agency** head, or **Commissioner**.

35.3.2 If any of the **Contractor's** officers or employees believes that he or she has been the subject of an adverse personnel action in violation of Article 35.3.1, he or she shall be entitled to bring a cause of action against the **Contractor** to recover all relief necessary to make him or her whole. Such relief may include but is not limited to: (a) an injunction to restrain continued retaliation, (b) reinstatement to the position such employee would have had but for the retaliation or to an equivalent position, (c) reinstatement of full fringe benefits and seniority rights, (d) payment of two times back pay, plus interest, and (e) compensation for any special damages sustained as a result of the retaliation, including litigation costs and reasonable attorney's fees.

35.3.3 The **Contractor** shall post a notice provided by the **City** in a prominent and accessible place on any site where work pursuant to the **Contract** is performed that contains information about:

35.3.3(a) how its employees can report to the New York City Department of Investigation allegations of fraud, false claims, criminality or corruption arising out of or in connection with the **Contract**; and

35.3.3(b) the rights and remedies afforded to its employees under Administrative Code sections 7-805 (the New York City False Claims Act) and 12-113 (the Whistleblower Protection Expansion Act) for lawful acts taken in connection with the reporting of allegations of fraud, false claims, criminality or corruption in connection with the **Contract**.

35.3.4 For the purposes of this Article 35.3, “adverse personnel action” includes dismissal, demotion, suspension, disciplinary action, negative performance evaluation, any action resulting in loss of staff, office space, equipment or other benefit, failure to appoint, failure to promote, or any transfer or assignment or failure to transfer or assign against the wishes of the affected officer or employee.

35.3.5 This Article 35.3 is applicable to all of the **Contractor’s Subcontractors** having subcontracts with a value in excess of \$100,000; accordingly, the **Contractor** shall include this rider in all subcontracts with a value a value in excess of \$100,000.

35.4 Article 35.3 is not applicable to this **Contract** if it is valued at \$100,000 or less. Articles 35.3.1, 35.3.2, 35.3.4, and 35.3.5 are not applicable to this **Contract** if it was solicited pursuant to a finding of an emergency.

ARTICLE 36. NO DISCRIMINATION

36.1 The **Contractor** specifically agrees, as required by Labor Law Section 220-e, as amended, that:

36.1.1 In the hiring of employees for the performance of **Work** under this **Contract** or any subcontract hereunder, neither the **Contractor, Subcontractor**, nor any person acting on behalf of such **Contractor** or **Subcontractor**, shall by reason of race, creed, color or national origin discriminate against any citizen of the State of New York who is qualified and available to perform the **Work** to which the employment relates;

36.1.2 Neither the **Contractor, Subcontractor**, nor any person on its behalf shall, in any manner, discriminate against or intimidate any employee hired for the performance of **Work** under this **Contract** on account of race, creed, color or national origin;

36.1.3 There may be deducted from the amount payable to the **Contractor** by the **City** under this **Contract** a penalty of fifty (\$50.00) dollars for each person for each **Day** during which such person was discriminated against or intimidated in violation of the provisions of this **Contract**; and

36.1.4 This **Contract** may be cancelled or terminated by the **City** and all moneys due or to become due hereunder may be forfeited, for a second or any subsequent violation of the terms or conditions of this Article 36.

36.1.5 This Article 36 covers all construction, alteration and repair of any public building or public work occurring in the State of New York and the manufacture, sale, and distribution of materials, equipment, and supplies to the extent that such operations are performed within the State of New York pursuant to this **Contract**.

36.2 The **Contractor** specifically agrees, as required by Section 6-108 of the Administrative Code, as amended, that:

36.2.1 It shall be unlawful for any person engaged in the construction, alteration or repair of buildings or engaged in the construction or repair of streets or highways pursuant to a **Contract** with the **City** or engaged in the manufacture, sale or distribution of materials, equipment or supplies pursuant to a **Contract** with the **City** to refuse to employ or to refuse to continue in any employment any person on account of the race, color or creed of such person.

36.2.2 It shall be unlawful for any person or any servant, agent or employee of any person, described in Article 36.1.2, to ask, indicate or transmit, orally or in writing, directly or indirectly, the race, color or creed or religious affiliation of any person employed or seeking employment from such person, firm or corporation.

36.2.3 Breach of the foregoing provisions shall be deemed a violation of a material provision of this **Contract**.

36.2.4 Any person, or the employee, manager or owner of or officer of such firm or corporation who shall violate any of the provisions of this Article 36.2 shall, upon conviction thereof, be punished by a fine of not more than one hundred (\$100.00) dollars or by imprisonment for not more than thirty (30) **Days**, or both.

36.3 This **Contract** is subject to the requirements of Executive Order No. 50 (1980) ("E.O. 50"), as revised, and the rules and regulations promulgated thereunder. No contract will be awarded unless and until these requirements have been complied with in their entirety. By signing this **Contract**, the **Contractor** agrees that it:

36.3.1 Will not engage in any unlawful discrimination against any employee or applicant for employment because of race, creed, color, national origin, sex, age, disability, marital status or sexual orientation with respect to all employment decisions including, but not limited to, recruitment, hiring, upgrading, demotion, downgrading, transfer, training, rates of pay or other forms of compensation, layoff, termination, and all other terms and conditions of employment; and

36.3.2 Will not engage in any unlawful discrimination in the selection of **Subcontractors** on the basis of the owner's race, color, creed, national origin, sex, age, disability, marital status or sexual orientation; and

36.3.3 Will state in all solicitations or advertisements for employees placed by or on behalf of the **Contractor** that all qualified applicants will receive consideration for employment without unlawful discrimination based on race, creed, color, national origin, sex, age, citizens status, disability, marital status, sexual orientation, or that it is an equal employment opportunity employer; and

36.3.4 Will send to each labor organization or representative of workers with which it has a collective bargaining agreement or other contract or memorandum of understanding, written notification of its equal employment opportunity commitments under E.O. 50 and the rules and regulations promulgated thereunder; and

36.3.5 Will furnish, before the award of the **Contract**, all information and reports, including an employment report, that are required by E.O. 50, the rules and regulations promulgated thereunder, and orders of the **City** Department of Business Services, Division of Labor Services (**DLS**) and will permit access to its books, records, and accounts by the **DLS** for the purposes of investigation to ascertain compliance with such rules, regulations, and orders.

36.4 The **Contractor** understands that in the event of its noncompliance with the nondiscrimination clauses of this **Contract** or with any of such rules, regulations, or orders, such noncompliance shall constitute a material breach of this **Contract** and noncompliance with E.O. 50 and the rules and regulations promulgated thereunder. After a hearing held pursuant to the rules of the **DLS**, the Director of the **DLS** may direct the **Commissioner** to impose any or all of the following sanctions:

36.4.1 Disapproval of the **Contractor**; and/or

36.4.2 Suspension or termination of the **Contract**; and/or

36.4.3 Declaring the **Contractor** in default; and/or

36.4.4 In lieu of any of the foregoing sanctions, the Director of the **DLS** may impose an employment program.

In addition to any actions taken under this **Contract**, failure to comply with E.O. 50 and the rules and regulations promulgated thereunder, in one or more instances, may result in a **City Agency** declaring the **Contractor** to be non-responsible in future procurements. The **Contractor** further agrees that it will refrain from entering into any **Contract** or **Contract** modification subject to E.O. 50 and the rules and regulations promulgated thereunder with a **Subcontractor** who is not in compliance with the requirements of E.O. 50 and the rules and regulations promulgated thereunder.

36.5 The **Contractor** specifically agrees, as required by Section 6-123 of the Administrative Code, that:

36.5.1 The **Contractor** will not engage in any unlawful discriminatory practice in violation of Title 8 of the Administrative Code; and

36.5.2 Any failure to comply with this Article 36.5 may subject the **Contractor** to the remedies set forth in Section 6-123 of the Administrative Code, including, where appropriate, sanctions such as withholding of payment, imposition of an employment program, finding the **Contractor** to be in default, cancellation of the **Contract**, or any other sanction or remedy provided by **Law** or **Contract**.

ARTICLE 37. LABOR LAW REQUIREMENTS

37.1 The **Contractor** shall strictly comply with all applicable provisions of the Labor Law, as amended. Such compliance is a material term of this **Contract**.

37.2 The **Contractor** specifically agrees, as required by Labor Law Sections 220 and 220-d, as amended, that:

37.2.1 **Hours of Work:** No laborer, worker, or mechanic in the employ of the **Contractor**, **Subcontractor** or other person doing or contracting to do the whole or a part of the **Work** contemplated by this **Contract** shall be permitted or required to work more than eight (8) hours in any one (1) **Day**, or more than five (5) **Days** in any one (1) week, except as provided in the Labor Law and in cases of extraordinary emergency including fire, flood, or danger to life or property, or in the case of national emergency when so proclaimed by the President of the United States of America.

37.2.2 In situations in which there are not sufficient laborers, workers, and mechanics who may be employed to carry on expeditiously the **Work** contemplated by this **Contract** as a result of such restrictions upon the number of hours and **Days** of labor, and the immediate commencement or prosecution or completion without undue delay of the **Work** is necessary for the preservation of the **Site** and/or for the protection of the life and limb of the persons using the same, such laborers, workers, and mechanics shall be permitted or required to

work more than eight (8) hours in any one (1) **Day**; or five (5) **Days** in any one (1) week; provided, however, that upon application of any **Contractor**, the **Commissioner** shall have first certified to the Commissioner of Labor of the State of New York (hereinafter "Commissioner of Labor") that such public **Work** is of an important nature and that a delay in carrying it to completion would result in serious disadvantage to the public; and provided, further, that such Commissioner of Labor shall have determined that such an emergency does in fact exist as provided in Labor Law Section 220.2.

37.2.3 Failure of the **Commissioner** to make such a certification to the Commissioner of Labor shall not entitle the **Contractor** to damages for delay or for any cause whatsoever.

37.2.4 Prevailing Rate of Wages: The wages to be paid for a legal day's **Work** to laborers, workers, or mechanics employed upon the **Work** contemplated by this **Contract** or upon any materials to be used thereon shall not be less than the "prevailing rate of wage" as defined in Labor Law Section 220, and as fixed by the **Comptroller** in the attached Schedule of Wage Rates and in updated schedules thereof. The prevailing wage rates and supplemental benefits to be paid are those in effect at the time the **Work** is being performed.

37.2.5 Requests for interpretation or correction in the Information for Bidders includes all requests for clarification of the classification of trades to be employed in the performance of the **Work** under this **Contract**. In the event that a trade not listed in the **Contract** is in fact employed during the performance of this **Contract**, the **Contractor** shall be required to obtain from the **Agency** the prevailing wage rates and supplementary benefits for the trades used and to complete the performance of this **Contract** at the price at which the **Contract** was awarded.

37.2.6 Minimum Wages: Except for employees whose wage is required to be fixed pursuant to Labor Law Section 220, all persons employed by the **Contractor** and any **Subcontractor** in the manufacture or furnishing of the supplies, materials, or equipment, or the furnishing of work, labor, or services, used in the performance of this **Contract**, shall be paid, without subsequent deduction or rebate unless expressly authorized by **Law**, not less than the sum mandated by **Law**.

37.3 Working Conditions: No part of the **Work**, labor or services shall be performed or rendered by the **Contractor** in any plants, factories, buildings or surroundings or under working conditions which are unsanitary or hazardous or dangerous to the health and safety of employees engaged in the performance of this **Contract**. Compliance with the safety, sanitary, and factory inspection **Laws** of the state in which the **Work** is to be performed shall be prima facie evidence of compliance with this Article 37.3.

37.4 Prevailing Wage Enforcement: The **Contractor** agrees to pay for all costs incurred by the **City** in enforcing prevailing wage requirements, including the cost of any investigation conducted by or on behalf of the **Agency** or the **Comptroller**, where the **City** discovers a failure to comply with any of the requirements of this Article 37 by the **Contractor** or its **Subcontractor(s)**. The **Contractor** also agrees that, should it fail or refuse to pay for any such investigation, the **Agency** is hereby authorized to deduct from a **Contractor's** account an amount equal to the cost of such investigation.

37.4.1 The Labor Law Section 220 and Section 220-d, as amended, provide that this **Contract** shall be forfeited and no sum paid for any **Work** done hereunder on a second conviction for willfully paying less than:

37.4.1(a) The stipulated prevailing wage scale as provided in Labor Law section 220, as amended, or

37.4.1(b) The stipulated minimum hourly wage scale as provided in Labor Law section 220-d, as amended.

37.4.2 For any breach or violation of either working conditions (Article 37.3) or minimum wages (Article 37.2.6) provisions, the party responsible therefor shall be liable to the **City** for liquidated damages, which may be withheld from any amounts due on any contracts with the **City** of such party responsible, or may be recovered in actions brought by the **City** Corporation Counsel in the name of the **City**, in addition to damages for any other breach of this **Contract**, for a sum equal to the amount of any underpayment of wages due to any employee engaged in the performance of this **Contract**. In addition, the **Commissioner** shall have the right to cancel contracts and enter into other contracts for the completion of the original contract, with or without public letting, and the original **Contractor** shall be liable for any additional cost. All sums withheld or recovered as deductions, rebates, refunds, or underpayment of wages hereunder, shall be held in a special deposit account and shall be paid without interest, on order of the **Comptroller**, directly to the employees who have been paid less than minimum rates of pay as set forth herein and on whose account such sums were withheld or recovered, provided that no claims by employees for such payments shall be entertained unless made within two (2) years from the date of actual notice to the **Contractor** of the withholding or recovery of such sums by the **City**.

37.4.3 A determination by the **Comptroller** that a **Contractor** and/or its **Subcontractor** willfully violated Labor Law Section 220 will be forwarded to the **City's** five District Attorneys for review.

37.4.4 The **Contractor's** or **Subcontractor's** noncompliance with this Article 37.4 and Labor Law Section 220 may result in an unsatisfactory performance evaluation and the **Comptroller** may also find and determine that the **Contractor** or **Subcontractor** willfully violated the New York Labor Law.

37.4.4(a) An unsatisfactory performance evaluation for noncompliance with this Article 37.4 may result in a determination that the **Contractor** is a non-responsible bidder on subsequent procurements with the **City** and thus a rejection of a future award of a contract with the **City**, as well as any other sanctions provided for by **Law**.

37.4.4(b) Labor Law Section 220-b, as amended, provides that when two (2) final determinations have been rendered against a **Contractor** or **Subcontractor** within any consecutive six (6) year period determining that such **Contractor** or **Subcontractor** has willfully failed to pay the prevailing rate of wages or to provide supplements in accordance with the Labor Law and this Article 37.4, whether such failures were concurrent or consecutive and whether or not such final determinations concerning separate public works projects are rendered simultaneously, such **Contractor** or **Subcontractor** shall be ineligible to submit a bid on or be awarded any public works contract with the **City** for a period of five (5) years from the second final determination. If the final determination involves the falsification of payroll records or the kickback of wages or supplements, the **Contractor** or **Subcontractor** shall be ineligible to submit a bid on or be awarded any public works contract with the **City** for a period of five (5) years from the first final determination.

37.4.4(c) Labor Law Section 220, as amended, provides that the **Contractor** or **Subcontractor** found to have violated this Article 37.4 may be directed to make payment of wages or supplements including interest found to be due, and the **Contractor** or **Subcontractor** may be directed to make payment of a further sum as

a civil penalty in an amount not exceeding twenty-five (25%) percent of the total amount found to be due.

37.5 The **Contractor** and its **Subcontractors** shall within ten (10) **Days** after mailing of a Notice of Award or written order, post in prominent and conspicuous places in each and every plant, factory, building, and structure where employees of the **Contractor** and its **Subcontractors** engaged in the performance of this **Contract** are employed, notices furnished by the **City**, in relation to prevailing wages and supplements, minimum wages, and other stipulations contained in Sections 220 and 220-h of the Labor Law, and the **Contractor** and its **Subcontractors** shall continue to keep such notices posted in such prominent and conspicuous places until **Final Acceptance** of the supplies, materials, equipment, or **Work**, labor, or services required to be furnished or rendered under this **Contract**.

37.6 The **Contractor** shall strictly comply with all of the provisions of Articles 37.6.1 through 37.6.5, and provide for all workers, laborers or mechanics in its employ, the following:

37.6.1 **Notices Posted At Site:** Post, in a location designated by the **City**, schedules of prevailing wages and supplements for this **Project**, a copy of all re-determinations of such schedules for the **Project**, the Workers' Compensation Law Section 51 notice, all other notices required by **Law** to be posted at the **Site**, the **City** notice that this **Project** is a public works project on which each worker is entitled to receive the prevailing wages and supplements for the occupation at which he or she is working, and all other notices which the **City** directs the **Contractor** to post. The **Contractor** shall provide a surface for such notices which is satisfactory to the **City**. The **Contractor** shall maintain and keep current such notices in a legible manner and shall replace any notice or schedule which is damaged, defaced, illegible or removed for any reason. The **Contractor** shall post such notices before commencing any **Work** on the **Site** and shall maintain such notices until all **Work** on the **Site** is complete; and

37.6.2 **Daily Site Sign-in Sheets:** Maintain daily **Site** sign-in sheets, and require that **Subcontractors** maintain daily **Site** sign-in sheets for its employees, which include blank spaces for an employee's name to be both printed and signed, job title, date started and Social Security number, the time the employee began work and the time the employee left work, until **Final Acceptance** of the supplies, materials, equipment, or **Work**, labor, or services to be furnished or rendered under this **Contract** unless exception is granted by the **Comptroller** upon application by the **Agency**. In the alternative, subject to the approval of the **CCPO**, the **Contractor** and **Subcontractor** may maintain an electronic or biometric sign-in system, which provides the information required by this Article 37.6.2; and

37.6.3 **Individual Employee Information Notices:** Distribute a notice to each worker, laborer or mechanic employed under this **Contract**, in a form provided by the **Agency**, that this **Project** is a public works project on which each worker, laborer or mechanic is entitled to receive the prevailing rate of wages and supplements for the occupation at which he or she is working. If the total cost of the **Work** under this **Contract** is at least two hundred fifty thousand (\$250,000) dollars, such notice shall also include a statement that each worker, laborer or mechanic must be certified prior to performing any **Work** as having successfully completed a course in construction safety and health approved by the United States Department of Labor's Occupational Safety and Health Administration that is at least ten (10) hours in duration. Such notice shall be distributed to each worker before he or she starts performing any **Work** of this **Contract** and with the first paycheck after July first of each year. "Worker, laborer or mechanic" includes employees of the **Contractor** and all **Subcontractors** and all employees of suppliers entering the **Site**. At the time of distribution, the **Contractor** shall have each worker, laborer or mechanic sign a statement, in a form provided by the **Agency**, certifying that the worker has received the notice required by this

Article 37.6.3, which signed statement shall be maintained with the payroll records required by this **Contract**; and

37.6.3(a) The **Contractor** and each **Subcontractor** shall notify each worker, laborer or mechanic employed under this **Contract** in writing of the prevailing rate of wages for their particular job classification. Such notification shall be given to every worker, laborer, and mechanic on their first pay stub and with every pay stub thereafter; and

37.6.4 **Site Laminated Identification Badges:** The **Contractor** shall provide laminated identification badges which include a photograph of the worker's, laborer's or mechanic's face and indicate the worker's, laborer's or mechanic's name, trade, employer's name, and employment starting date (month/day/year). Further, the **Contractor** shall require as a condition of employment on the **Site**, that each and every worker, laborer or mechanic wear the laminated identification badge at all times and that it may be seen by any representative of the **City**. The **Commissioner** may grant a written waiver from the requirement that the laminated identification badge include a photograph if the **Contractor** demonstrates that the identity of an individual wearing a laminated identification badge can be easily verified by another method; and

37.6.5 **Language Other Than English Used On Site:** Provide the **ACCO** notice when three (3) or more employees (worker and/or laborer and/or mechanic) on the **Site**, at any time, speak a language other than English. The **ACCO** will then provide the **Contractor** the notices described in Article 37.6.1 in that language or languages as may be required. The **Contractor** is responsible for all distributions under this Article 37; and

37.6.6 **Provision of Records:** The **Contractor** and **Subcontractor(s)** shall produce within five (5) **Days** on the **Site** of the **Work** and upon a written order of the **Engineer**, the **Commissioner**, the **ACCO**, the **Agency EAO**, or the **Comptroller**, such records as are required to be kept by this Article 37.6; and

37.6.7 The **Contractor** and **Subcontractor(s)** shall pay employees by check or direct deposit. If this **Contract** is for an amount greater than one million (\$1,000,000) dollars, checks issued by the **Contractor** to covered employees shall be generated by a payroll service or automated payroll system (an in-house system may be used if approved by the **Agency**). For any subcontract for an amount greater than seven hundred fifty thousand (\$750,000) dollars, checks issued by a **Subcontractor** to covered employees shall be generated by a payroll service or automated payroll system (an in-house system may be used if approved by the **Agency**); and

37.6.8 The failure of the **Contractor** or **Subcontractor(s)** to comply with the provisions of Articles 37.6.1 through 37.6.7 may result in the **Commissioner** declaring the **Contractor** in default and/or the withholding of payments otherwise due under the **Contract**.

37.7 The **Contractor** and its **Subcontractors** shall keep such employment and payroll records as are required by Section 220 of the Labor Law. The failure of the **Contractor** or **Subcontractor(s)** to comply with the provisions of this Article 37.7 may result in the **Commissioner** declaring the **Contractor** in default and/or the withholding of payments otherwise due under the **Contract**.

37.8 At the time the **Contractor** makes application for each partial payment and for final payment, the **Contractor** shall submit to the **Commissioner** a written payroll certification, in the form provided by this **Contract**, of compliance with the prevailing wage, minimum wage, and other provisions and stipulations required by Labor Law Section 220 and of compliance with the training requirements of

Labor Law Section 220-h set forth in Article 35.2. This certification of compliance shall be a condition precedent to payment and no payment shall be made to the **Contractor** unless and until each such certification shall have been submitted to and received by the **Commissioner**.

37.9 This **Contract** is executed by the **Contractor** with the express warranty and representation that the **Contractor** is not disqualified under the provisions of Section 220 of the Labor Law from the award of the **Contract**.

37.10 Any breach or violation of any of the foregoing shall be deemed a breach or violation of a material provision of this **Contract**, and grounds for cancellation thereof by the **City**.

ARTICLE 38. PAYROLL REPORTS

38.1 The **Contractor** and its **Subcontractor(s)** shall maintain on the **Site** during the performance of the **Work** the original payrolls or transcripts thereof which the **Contractor** and its **Subcontractor(s)** are required to maintain and shall submit such original payrolls or transcripts, subscribed and affirmed by it as true, within thirty (30) **Days** after issuance of its first payroll, and every thirty (30) **Days** thereafter, pursuant to Labor Law Section 220(3-a)(a)(iii). The **Contractor** and **Subcontractor(s)** shall submit such original payrolls or transcripts along with each and every payment requisition. If payment requisitions are not submitted at least once a month, the **Contractor** and its **Subcontractor(s)** shall submit original payrolls and transcripts both along with its payment requisitions and independently of its payment requisitions.

38.2 The **Contractor** shall maintain payrolls or transcripts thereof for six (6) years from the date of completion of the **Work** on this **Contract**. If such payrolls and transcripts are maintained outside of New York City after the completion of the **Work** and their production is required pursuant to this Article 38, the **Contractor** shall produce such records in New York City upon request by the **City**.

38.3 The **Contractor** and **Subcontractor(s)** shall comply with any written order, direction, or request made by the **Engineer**, the **Commissioner**, the **ACCO**, the **Agency EAO**, the **Agency Labor Law Investigator(s)**, or the **Comptroller**, to provide to the requesting party any of the following information and/or records within five (5) **Days** of such written order, direction, or request:

38.3.1 Such original payrolls or transcripts thereof subscribed and affirmed by it as true and the statements signed by each worker pursuant to this Chapter VIII; and/or

38.3.2 Attendance sheets for each **Day** on which any employee of the **Contractor** and/or any of the **Subcontractor(s)** performed **Work** on the **Site**, which attendance sheet shall be in a form acceptable to the **Agency** and shall provide information acceptable to the **Agency** to identify each such employee; and/or

38.3.3 Any other information to satisfy the **Engineer**, the **Commissioner**, the **ACCO**, the **Agency EAO**, the **Agency Labor Law Investigator(s)** or the **Comptroller**, that this Chapter VIII and the Labor Law, as to the hours of employment and prevailing rates of wages and/or supplemental benefits, are being observed.

38.4 The failure of the **Contractor** or **Subcontractor(s)** to comply with the provisions of Articles 38.1 and/or 38.2 may result in the **Commissioner** declaring the **Contractor** in default and/or the withholding of payments otherwise due under the **Contract**.

ARTICLE 39. DUST HAZARDS

39.1 Should a harmful dust hazard be created in performing the **Work** of this **Contract**, for the elimination of which appliances or methods have been approved by the Board of Standards and Appeals of the City of New York, such appliances and methods shall be installed, maintained, and effectively operated during the continuance of such harmful dust hazard. Failure to comply with this provision after notice shall make this **Contract** voidable at the sole discretion of the **City**.

CHAPTER IX PARTIAL AND FINAL PAYMENTS

ARTICLE 40. CONTRACT PRICE

40.1 The **City** shall pay, and the **Contractor** agrees to accept, in full consideration for the **Contractor's** performance of the **Work** subject to the terms and conditions hereof, the lump sum price or unit prices for which this **Contract** was awarded, plus the amount required to be paid for any **Extra Work** ordered by the **Commissioner** under Article 25, less credit for any **Work** omitted pursuant to Article 29.

ARTICLE 41. BID BREAKDOWN ON LUMP SUM

41.1 Within fifteen (15) **Days** after the commencement date specified in the **Notice to Proceed** or **Order to Work**, unless otherwise directed by the **Resident Engineer**, the **Contractor** shall submit to the **Resident Engineer** a breakdown of its bid price, or of lump sums bid for items of the **Contract**, showing the various operations to be performed under the **Contract**, as directed in the progress schedule required under Article 9, and the value of each of such operations, the total of such items to equal the lump sum price bid. Said breakdown must be approved in writing by the **Resident Engineer**.

41.2 No partial payment will be approved until the **Contractor** submits a bid breakdown that is acceptable to the **Resident Engineer**.

41.3 The **Contractor** shall also submit such other information relating to the bid breakdown as directed by the **Resident Engineer**. Thereafter, the breakdown may be used only for checking the **Contractor's** applications for partial payments hereunder, but shall not be binding upon the **City**, the **Commissioner**, or the **Engineer** for any purpose whatsoever.

ARTICLE 42. PARTIAL PAYMENTS

42.1 From time to time as the **Work** progresses satisfactorily, but not more often than once each calendar month (except where the **Commissioner** approves in writing the submission of invoices on a more frequent basis and for invoices relating to **Work** performed pursuant to a change order), the **Contractor** may submit to the **Engineer** a requisition for a partial payment in the prescribed form, which shall contain an estimate of the quantity and the fair value of the **Work** done during the payment period.

42.2 Partial payments may be made for materials, fixtures, and equipment in advance of their actual incorporation in the **Work**, as the **Commissioner** may approve, and upon the terms and conditions set forth in the General Conditions.

42.3 The **Contractor** shall also submit to the **Commissioner** in connection with every application for partial payment a verified statement in the form prescribed by the **Comptroller** setting forth the information required under Labor Law Section 220-a.

42.4 Within thirty (30) **Days** after receipt of a satisfactory payment application, and within sixty (60) **Days** after receipt of a satisfactory payment application in relation to **Work** performed pursuant to a change order, the **Engineer** will prepare and certify, and the **Commissioner** will approve, a voucher for a partial payment in the amount of such approved estimate, less any and all deductions authorized to be made by the **Commissioner** under the terms of this **Contract** or by **Law**.

ARTICLE 43. PROMPT PAYMENT

43.1 The Prompt Payment provisions of the **PPB** Rules in effect at the time of the bid will be applicable to payments made under this **Contract**. The provisions require the payment to the **Contractor** of interest on payments made after the required payment date, except as set forth in the **PPB** Rules.

43.2 The **Contractor** shall submit a proper invoice to receive payment, except where the **Contract** provides that the **Contractor** will be paid at predetermined intervals without having to submit an invoice for each scheduled payment.

43.3 Determination of interest due will be made in accordance with the **PPB** Rules.

43.4 If the **Contractor** is paid interest, the proportionate share(s) of that interest shall be forwarded by the **Contractor** to its **Subcontractor(s)**.

43.5 The **Contractor** shall pay each **Subcontractor** or **Materialman** not later than seven (7) **Days** after receipt of payment out of amounts paid to the **Contractor** by the **City** for **Work** performed by the **Subcontractor** or **Materialman** under this **Contract**.

43.5.1 If **Contractor** fails to make any payment to any **Subcontractor** or **Materialman** within seven (7) **Days** after receipt of payment by the **City** pursuant to this Article 43.5, then the **Contractor** shall pay interest on amounts due to such **Subcontractor** or **Materialman** at the rate of interest in effect on the date such payment is made by the **Contractor** computed in accordance with Section 756-b (1)(b) of the New York General Business Law. Accrual of interest shall commence on the **Day** immediately following the expiration of the seventh **Day** following receipt of payment by the **Contractor** from the **City** and shall end on the date on which payment is made.

43.6 The **Contractor** shall include in each of its subcontracts a provision requiring each **Subcontractor** to make payment to each of its **Subcontractors** or **Materialmen** for **Work** performed under this **Contract** in the same manner and within the same time period set forth above.

ARTICLE 44. SUBSTANTIAL COMPLETION PAYMENT

44.1 The **Contractor** shall submit with the **Substantial Completion** requisition:

44.1.1 A final verified statement of any pending Article 27 disputes in accordance with the **PPB** Rules and this **Contract** and any and all alleged claims against the **City**, in any way connected with or arising out of this **Contract** (including those as to which details may have been furnished pursuant to Articles 11, 27, 28, and 30) setting forth with respect to each

such claim the total amount thereof, the various items of labor and materials included therein, and the alleged value of each item; and if the alleged claim be one for delay, the alleged cause of each such delay, the period or periods of time, giving the dates when the **Contractor** claims the performance of the **Work** or a particular part thereof was delayed, and an itemized statement and breakdown of the amount claimed for each such delay.

44.1.1(a) With respect to each such claim, the **Commissioner**, the **Comptroller** and, in the event of litigation, the **City Corporation Counsel** shall have the same right to inspect, and to make extracts or copies of, the **Contractor's** books, vouchers, records, etc., as is referred to in Articles 11, 27, 28, and 30. Nothing contained in this Article 44.1.1(a) is intended to or shall relieve the **Contractor** from the obligation of complying strictly with Articles 11, 27, 28, and 30. The **Contractor** is warned that unless such claims are completely set forth as herein required, the **Contractor** upon acceptance of the **Substantial Completion** payment pursuant to this Article 44, will have waived any such claims.

44.1.2 A Final Approved Punch List.

44.1.3 Where required, a request for an extension of time to achieve **Substantial Completion** or final extension of time.

44.2 The **Commissioner** shall issue a voucher calling for payment of any part or all of the balance due for **Work** performed under the **Contract**, including monies retained under Article 21, less any and all deductions authorized to be made by the **Commissioner**, under this **Contract** or by **Law**, and less twice the amount the **Commissioner** considers necessary to ensure the completion of the balance of the **Work** by the **Contractor**. Such a payment shall be considered a partial and not a final payment. No **Substantial Completion** payment shall be made under this Article 44 where the **Contractor** failed to complete the **Work** within the time fixed for such completion in the Schedule A of the General Conditions, or within the time to which completion may have been extended, until an extension or extensions of time for the completion of **Work** have been acted upon pursuant to Article 13.

44.3 No further partial payments shall be made to the **Contractor** after **Substantial Completion**, except the **Substantial Completion** payment and payment pursuant to any **Contractor's** requisition that were properly filed with the **Commissioner** prior to the date of **Substantial Completion**; however, the **Commissioner** may grant a waiver for further partial payments after the date of **Substantial Completion** to permit payments for change order **Work** and/or release of retainage and deposits pursuant to Articles 21 and 24. Such waiver shall be in writing.

44.4 The **Contractor** acknowledges that nothing contained in this Article 44 is intended to or shall in any way diminish the force and effect of Article 13.

ARTICLE 45. FINAL PAYMENT

45.1 After completion and **Final Acceptance** of the **Work**, the **Contractor** shall submit all required certificates and documents, together with a requisition for the balance claimed to be due under the **Contract**, less the amount authorized to be retained for maintenance under Article 24. Such submission shall be within 90 days of the date of the **Commissioner's** written determination of **Final Acceptance**, or within such additional time as may be granted by the **Commissioner** in writing. If the **Contractor** fails to submit all required certificates and documents within the time allowed, no payment of the balance claimed shall be made to the **Contractor** and the **Contractor** shall be deemed to have forfeited its right to

payment of any balance claimed. A verified statement similar to that required in connection with applications for partial payments shall also be submitted to the **Commissioner**.

45.2 Amended Verified Statement of Claims: The **Contractor** shall also submit with the final requisition any amendments to the final verified statement of any pending dispute resolution procedures in accordance with the **PPB** Rules and this **Contract** and any and all alleged claims against the **City**, in any way connected with or arising out of this **Contract** (including those as to which details may have been furnished pursuant to Articles 11, 27, 28, and 30) that have occurred subsequent to **Substantial Completion**, setting forth with respect to each such claim the total amount thereof, the various items of labor and materials included therein, and the alleged value of each such item; and if the alleged claim be one for delay, the alleged cause of each such delay, the period or periods of time, giving the dates when the **Contractor** claims the performance of the **Work** or a particular part thereof was delayed, and an itemized statement and breakdown of the amount claimed for each such delay. With reference to each such claim, the **Commissioner**, the **Comptroller** and, in the event of litigation, the **City Corporation Counsel** shall have the same right to inspect, and to make extracts or copies of, the **Contractor's** books, vouchers, records, etc., as is referred to in Articles 11, 27, 28, and 30. Nothing contained in this Article 45.2, is intended to or shall relieve the **Contractor** from the obligation of complying strictly with Articles 11, 27, 28, and 30. The **Contractor** is warned that unless such claims are completely set forth as herein required, the **Contractor**, upon acceptance of the Final Payment pursuant to Article 46, will have waived any such claims.

45.3 Preparation of Final Voucher: Upon determining the balance due hereunder other than on account of claims, the **Engineer** will prepare and certify, for the **Commissioner's** approval, a voucher for final payment in that amount less any and all deductions authorized to be made by the **Commissioner** under this **Contract** or by **Law**. In the case of a lump sum **Contract**, the **Commissioner** shall certify the voucher for final payment within thirty (30) **Days** from the date of completion and acceptance of the **Work**, provided all requests for extensions of time have been acted upon.

45.3.1 All prior certificates and vouchers upon which partial payments were made, being merely estimates made to enable the **Contractor** to prosecute the **Work** more advantageously, shall be subject to correction in the final voucher, and the certification of the **Engineer** thereon and the approval of the **Commissioner** thereof, shall be conditions precedent to the right of the **Contractor** to receive any money hereunder. Such final voucher shall be binding and conclusive upon the **Contractor**.

45.3.2 Payment pursuant to such final voucher, less any deductions authorized to be made by the **Commissioner** under this **Contract** or by **Law**, shall constitute the final payment, and shall be made by the **Comptroller** within thirty (30) **Days** after the filing of such voucher in his/her office.

45.4 The **Contractor** acknowledges that nothing contained in this Article 45 is intended to or shall in any way diminish the force and effect of Article 13.

ARTICLE 46. ACCEPTANCE OF FINAL PAYMENT

46.1 The acceptance by the **Contractor**, or by anyone claiming by or through it, of the final payment, whether such payment be made pursuant to any judgment of any court, or otherwise, shall constitute and operate as a release of the **City** from any and all claims of and liability to the **Contractor** for anything heretofore done or furnished for the **Contractor** relating to or arising out of this **Contract** and the **Work** done hereunder, and for any prior act, neglect or default on the part of the **City** or any of its officials, agents or employees, excepting only a claim against the **City** for the amounts deducted or retained in accordance with the terms and provisions of this **Contract** or by **Law**, and excepting any

claims, not otherwise waived, or any pending dispute resolution procedures which are contained in the verified statement filed with the **Contractor's** substantial and final requisitions pursuant to Articles 44 and 45.

46.2 The **Contractor** is warned that the execution by it of a release, in connection with the acceptance of the final payment, containing language purporting to reserve claims other than those herein specifically excepted from the operation of this Article 46, or those for amounts deducted by the **Commissioner** from the final requisition or from the final payment as certified by the **Engineer** and approved by the **Commissioner**, shall not be effective to reserve such claims, anything stated to the **Contractor** orally or in writing by any official, agent or employee of the **City** to the contrary notwithstanding.

46.3 Should the **Contractor** refuse to accept the final payment as tendered by the **Comptroller**, it shall constitute a waiver of any right to interest thereon.

46.4 The **Contractor**, however, shall not be barred by this Article 46 from commencing an action for breach of **Contract** to the extent permitted by **Law** and by the terms of the **Contract** for any claims that are contained in the verified statement filed with the **Contractor's** substantial and final requisitions pursuant to Articles 44 and 45 or that arose after submission of the final payment requisition, provided that a detailed and verified statement of claim is served upon the contracting **Agency** and **Comptroller** not later than forty (40) **Days** after the making of such final payment by electronic funds transfer (EFT) or the mailing of such final payment. The statement shall specify the items upon which the claim will be based and any such claim shall be limited to such items.

ARTICLE 47. APPROVAL BY PUBLIC DESIGN COMMISSION

47.1 All works of art, including paintings, mural decorations, stained glass, statues, bas-reliefs, and other sculptures, monuments, fountains, arches, and other structures of a permanent character intended for ornament or commemoration, and every design of the same to be used in the performance of this **Contract**, and the design of all bridges, approaches, buildings, gates, fences, lamps, or structures to be erected, pursuant to the terms of this **Contract**, shall be submitted to the Art Commission, d/b/a the Public Design Commission of the City of New York, and shall be approved by the Public Design Commission prior to the erection or placing in position of the same. The final payment shall not become due or payable under this **Contract** unless and until the Public Design Commission shall certify that the design for the **Work** herein contracted for has been approved by the said Public Design Commission, and that the same has been executed in substantial accordance with the design so approved, pursuant to the provisions of Chapter 37, Section 854 of the **City Charter**, as amended.

CHAPTER X CONTRACTOR'S DEFAULT

ARTICLE 48. COMMISSIONER'S RIGHT TO DECLARE CONTRACTOR IN DEFAULT

48.1 In addition to those instances specifically referred to in other Articles herein, the **Commissioner** shall have the right to declare the **Contractor** in default of this **Contract** if:

48.1.1 The **Contractor** fails to commence **Work** when notified to do so by the **Commissioner**; or
if

48.1.2 The **Contractor** shall abandon the **Work**; or if

48.1.3 The **Contractor** shall refuse to proceed with the **Work** when and as directed by the **Commissioner**; or if

48.1.4 The **Contractor** shall, without just cause, reduce its working force to a number which, if maintained, would be insufficient, in the opinion of the **Commissioner**, to complete the **Work** in accordance with the progress schedule; or if

48.1.5 The **Contractor** shall fail or refuse to increase sufficiently such working force when ordered to do so by the **Commissioner**; or if

48.1.6 The **Contractor** shall sublet, assign, transfer, convert or otherwise dispose of this **Contract** other than as herein specified; or sell or assign a majority interest in the **Contractor**; or if

48.1.7 The **Contractor** fails to secure and maintain all required insurance; or if

48.1.8 A receiver or receivers are appointed to take charge of the **Contractor's** property or affairs; or if

48.1.9 The **Commissioner** shall be of the opinion that the **Contractor** is or has been unnecessarily or unreasonably or willfully delaying the performance and completion of the **Work**, or the award of necessary subcontracts, or the placing of necessary material and equipment orders; or if

48.1.10 The **Commissioner** shall be of the opinion that the **Contractor** is or has been willfully or in bad faith violating any of the provisions of this **Contract**; or if

48.1.11 The **Commissioner** shall be of the opinion that the **Work** cannot be completed within the time herein provided therefor or within the time to which such completion may have been extended; provided, however, that the impossibility of timely completion is, in the **Commissioner's** opinion, attributable to conditions within the **Contractor's** control; or if

48.1.12 The **Work** is not completed within the time herein provided therefor or within the time to which the **Contractor** may be entitled to have such completion extended; or if

48.1.13 Any statement or representation of the **Contractor** in the **Contract** or in any document submitted by the **Contractor** with respect to the **Work**, the **Project**, or the **Contract** (or for purposes of securing the **Contract**) was untrue or incorrect when made; or if

48.1.14 The **Contractor** or any of its officers, directors, partners, five (5%) percent shareholders, principals, or other persons substantially involved in its activities, commits any of the acts or omissions specified as the grounds for debarment in the **PPB Rules**.

48.2 Before the **Commissioner** shall exercise his/her right to declare the **Contractor** in default, the **Commissioner** shall give the **Contractor** an opportunity to be heard, upon not less than two (2) **Days** notice.

ARTICLE 49. EXERCISE OF THE RIGHT TO DECLARE DEFAULT

49.1 The right to declare the **Contractor** in default for any of the grounds specified or referred to in Article 48 shall be exercised by sending the **Contractor** a notice, signed by the **Commissioner**, setting forth the ground or grounds upon which such default is declared (hereinafter referred to as a "Notice of Default").

49.2 The **Commissioner's** determination that the **Contractor** is in default shall be conclusive, final, and binding on the parties and such a finding shall preclude the **Contractor** from commencing a plenary action for any damages relating to the **Contract**. If the **Contractor** protests the determination of the **Commissioner**, the **Contractor** may commence an action in a court of competent jurisdiction of the State of New York under Article 78 of the New York Civil Practice Law and Rules.

ARTICLE 50. QUITTING THE SITE

50.1 Upon receipt of such notice the **Contractor** shall immediately discontinue all further operations under this **Contract** and shall immediately quit the **Site**, leaving untouched all plant, materials, equipment, tools, and supplies then on the **Site**.

ARTICLE 51. COMPLETION OF THE WORK

51.1 The **Commissioner**, after declaring the **Contractor** in default, may then have the **Work** completed by such means and in such manner, by contract with or without public letting, or otherwise, as he/she may deem advisable, utilizing for such purpose such of the **Contractor's** plant, materials, equipment, tools, and supplies remaining on the **Site**, and also such **Subcontractors**, as he/she may deem advisable.

51.2 After such completion, the **Commissioner** shall make a certificate stating the expense incurred in such completion, which shall include the cost of re-letting and also the total amount of liquidated damages (at the rate provided for in the **Contract**) from the date when the **Work** should have been completed by the **Contractor** in accordance with the terms hereof to the date of actual completion of the **Work**. Such certificate shall be binding and conclusive upon the **Contractor**, its sureties, and any person claiming under the **Contractor**, as to the amount thereof.

51.3 The expense of such completion, including any and all related and incidental costs, as so certified by the **Commissioner**, and any liquidated damages assessed against the **Contractor**, shall be charged against and deducted out of monies which are earned by the **Contractor** prior to the date of default. Should the expense of such completion, as certified by the **Commissioner**, exceed the total sum which would have been payable under the **Contract** if it had been completed by the **Contractor**, any excess shall be paid by the **Contractor**.

ARTICLE 52. PARTIAL DEFAULT

52.1 In case the **Commissioner** shall declare the **Contractor** in default as to a part of the **Work** only, the **Contractor** shall discontinue such part, shall continue performing the remainder of the **Work** in strict conformity with the terms of this **Contract**, and shall in no way hinder or interfere with any **Other**

Contractor(s) or persons whom the **Commissioner** may engage to complete the **Work** as to which the **Contractor** was declared in default.

52.2 The provisions of this Chapter relating to declaring the **Contractor** in default as to the entire **Work** shall be equally applicable to a declaration of partial default, except that the **Commissioner** shall be entitled to utilize for completion of the part of the **Work** as to which the **Contractor** was declared in default only such plant, materials, equipment, tools, and supplies as had been previously used by the **Contractor** on such part.

ARTICLE 53. PERFORMANCE OF UNCOMPLETED WORK

53.1 In completing the whole or any part of the **Work** under the provisions of this Chapter X, the **Commissioner** shall have the power to depart from or change or vary the terms and provisions of this **Contract**, provided, however, that such departure, change or variation is made for the purpose of reducing the time or expense of such completion. Such departure, change or variation, even to the extent of accepting a lesser or different performance, shall not affect the conclusiveness of the **Commissioner's** certificate of the cost of completion referred to in Article 51, nor shall it constitute a defense to an action to recover the amount by which such certificate exceeds the amount which would have been payable to the **Contractor** hereunder but for its default.

ARTICLE 54. OTHER REMEDIES

54.1 In addition to the right to declare the **Contractor** in default pursuant to this Chapter X, the **Commissioner** shall have the absolute right, in his/her sole discretion and without a hearing, to complete or cause to be completed in the same manner as described in Articles 51 and 53, any or all unsatisfactory or uncompleted punch list **Work** that remains after the completion date specified in the **Final Approved Punch List**. A written notice of the exercise of this right shall be sent to the **Contractor** who shall immediately quit the **Site** in accordance with the provisions of Article 50.

54.2 The expense of completion permitted under Article 54.1, including any and all related and incidental costs, as so certified by the **Commissioner**, shall be charged against and deducted out of monies which have been earned by the **Contractor** prior to the date of the exercise of the right set forth in Article 54.1; the balance of such monies, if any, subject to the other provisions of this **Contract**, to be paid to the **Contractor** without interest after such completion. Should the expense of such completion, as certified by the **Commissioner**, exceed the total sum which would have been payable under the **Contract** if it had been completed by the **Contractor**, any excess shall be paid by the **Contractor**.

54.3 The previous provisions of this Chapter X shall be in addition to any and all other remedies available under **Law** or in equity.

54.4 The exercise by the **City** of any remedy set forth herein shall not be deemed a waiver by the **City** of any other legal or equitable remedy contained in this **Contract** or provided under **Law**.

**CHAPTER XI
MISCELLANEOUS PROVISIONS**

ARTICLE 55. CONTRACTOR'S WARRANTIES

55.1 In consideration of, and to induce, the award of this **Contract** to the **Contractor**, the **Contractor** represents and warrants:

55.1.1 That it is financially solvent, sufficiently experienced and competent to perform the **Work**; and

55.1.2 That the facts stated in its bid and the information given by it pursuant to the Information for Bidders is true and correct in all respects; and

55.1.3 That it has read and complied with all requirements set forth in the **Contract**.

ARTICLE 56. CLAIMS AND ACTIONS THEREON

56.1 Any claim, that is not subject to dispute resolution under the **PPB Rules** or this **Contract**, against the **City** for damages for breach of **Contract** shall not be made or asserted in any action, unless the **Contractor** shall have strictly complied with all requirements relating to the giving of notice and of information with respect to such claims, as herein before provided.

56.2 Nor shall any action be instituted or maintained on any such claims unless such action is commenced within six (6) months after **Substantial Completion**; except that:

56.2.1 Any claims arising out of events occurring after **Substantial Completion** and before **Final Acceptance** of the **Work** shall be asserted within six (6) months of **Final Acceptance** of the **Work**;

56.2.2 Any claims for monies deducted, retained or withheld under the provisions of this **Contract** shall be asserted within six (6) months after the date when such monies otherwise become due and payable hereunder; and

56.2.3 If the **Commissioner** exercises his/her right to terminate the **Contract** pursuant to Article 64, any such action shall be commenced within six (6) months of the date the **Commissioner** exercises said right.

ARTICLE 57. INFRINGEMENT

57.1 The **Contractor** shall be solely responsible for and shall defend, indemnify, and hold the **City** harmless from any and all claims (even if the allegations of the lawsuit are without merit) and judgments for damages and from costs and expenses to which the **City** may be subject to or which it may suffer or incur allegedly arising out of or in connection with any infringement by the **Contractor** of any copyright, trade secrets, trademark or patent rights or any other property or personal right of any third party by the **Contractor** and/or its **Subcontractors** in the performance or completion of the **Work**. Insofar as the facts or **Law** relating to any claim would preclude the **City** from being completely indemnified by the **Contractor**, the **City** shall be partially indemnified by the **Contractor** to the fullest extent permitted by **Law**.

ARTICLE 58. NO CLAIM AGAINST OFFICIALS, AGENTS OR EMPLOYEES

58.1 No claim whatsoever shall be made by the **Contractor** against any official, agent or employee of the **City** for, or on account of, anything done or omitted to be done in connection with this **Contract**.

ARTICLE 59. SERVICE OF NOTICES

59.1 The **Contractor** hereby designates the business address, fax number, and email address specified in its bid, as the place where all notices, directions or other communications to the **Contractor** may be delivered, or to which they may be mailed. Any notice, direction, or communication from either party to the other shall be in writing and shall be deemed to have been given when (i) delivered personally; (ii) sent by certified mail, return receipt requested; (iii) delivered by overnight or same day courier service in a properly addressed envelope with confirmation; or (iv) sent by fax or email and, unless receipt of the fax or e-mail is acknowledged by the recipient by fax or e-mail, deposited in a post office box regularly maintained by the United States Postal Service in a properly addressed, postage pre-paid envelope.

59.2 **Contractor's** notice address, email address, or fax number may be changed at any time by an instrument in writing, executed and acknowledged by the **Contractor**, and delivered to the **Commissioner**.

59.3 Nothing herein contained shall, however, be deemed to preclude or render inoperative the service of any notice, direction or other communication upon the **Contractor** personally, or, if the **Contractor** is a corporation, upon any officer thereof.

ARTICLE 60. UNLAWFUL PROVISIONS DEEMED STRICKEN FROM CONTRACT

60.1 If this **Contract** contains any unlawful provision not an essential part of the **Contract** and which shall not appear to have been a controlling or material inducement to the making thereof, the same shall be deemed of no effect and shall, upon notice by either party, be deemed stricken from the **Contract** without affecting the binding force of the remainder.

ARTICLE 61. ALL LEGAL PROVISIONS DEEMED INCLUDED

61.1 It is the intent and understanding of the parties to this **Contract** that each and every provision of **Law** required to be inserted in this **Contract** shall be and is inserted herein. Furthermore, it is hereby stipulated that every such provision is to be deemed to be inserted herein, and if, through mistake or otherwise, any such provision is not inserted, or is not inserted in correct form, then this **Contract** shall forthwith upon the application of either party be amended by such insertion so as to comply strictly with the **Law** and without prejudice to the rights of either party hereunder.

ARTICLE 62. TAX EXEMPTION

62.1 The **City** is exempt from payment of Federal, State, and local taxes, including sales and compensating use taxes of the State of New York and its cities and counties on all tangible personal property sold to the **City** pursuant to the provisions of this **Contract**. These taxes are not to be included in bids. However, this exemption does not apply to tools, machinery, equipment or other property leased by or to the **Contractor**, **Subcontractor** or **Materialman** or to tangible personal property which, even

though it is consumed, is not incorporated into the completed **Work** (consumable supplies) and tangible personal property that the **Contractor** is required to remove from the **Site** during or upon completion of the **Work**. The **Contractor** and its **Subcontractors** and **Materialmen** shall be responsible for and pay any and all applicable taxes, including sales and compensating use taxes, on such leased tools, machinery, equipment or other property and upon all such consumable supplies and tangible personal property that the **Contractor** is required to remove from the **Site** during or upon completion of the **Work**.

62.2 The **Contractor** agrees to sell and the **City** agrees to purchase all tangible personal property, other than consumable supplies and other tangible personal property that the **Contractor** is required to remove from the **Site** during or upon completion of the **Work**, that is required, necessary or proper for or incidental to the construction of the **Project** covered by this **Contract**. The sum paid under this **Contract** for such tangible personal property shall be in full payment and consideration for the sale of such tangible personal property.

62.2.1 The **Contractor** agrees to construct the **Project** and to perform all **Work**, labor and services rendered, necessary, proper or incidental thereto for the sum shown in the bid for the performance of such **Work**, labor, and services, and the sum so paid pursuant to this **Contract** for such **Work**, labor, and services, shall be in full consideration for the performance by the **Contractor** of all its duties and obligations under this **Contract** in connection with said **Work**, labor, and services.

62.3 20 NYCRR Section 541.3(d) provides that a **Contractor's** purchases of tangible personal property that is either incorporated into real property owned by a governmental entity or purchased for and sold to a governmental entity are exempt from sales and use tax. The **City** shall not pay sales tax for any such tangible personal property that it purchases from the **Contractor** pursuant to the **Contract**. With respect to such tangible personal property, the **Contractor**, at the request of the **City**, shall furnish to the **City** such bills of sale and other instruments as may be required by the **City**, properly executed, acknowledged and delivered assuring to the **City** title to such tangible personal property, free of liens and/or encumbrances, and the **Contractor** shall mark or otherwise identify all such tangible personal property as the property of the **City**.

62.4 Title to all tangible personal property to be sold by the **Contractor** to the **City** pursuant to the provisions of the **Contract** shall immediately vest in and become the sole property of the **City** upon delivery of such tangible personal property to the **Site**. Notwithstanding such transfer of title, the **Contractor** shall have the full and continuing responsibility to install such tangible personal property in accordance with the provisions of this **Contract**, protect it, maintain it in a proper condition and forthwith repair, replace and make good any damage thereto, theft or disappearance thereof, and furnish additional tangible personal property in place of any that may be lost, stolen or rendered unusable, without cost to the **City**, until such time as the **Work** covered by the **Contract** is fully accepted by the **City**. Such transfer of title shall in no way affect any of the **Contractor's** obligations hereunder. In the event that, after title has passed to the **City**, any of the tangible personal property is rejected as being defective or otherwise unsatisfactory, title to all such tangible personal property shall be deemed to have been transferred back to the **Contractor**.

62.5 The purchase by **Subcontractors** or **Materialmen** of tangible personal property to be sold hereunder shall be a purchase or procurement for resale to the **Contractor** (either directly or through other **Subcontractors**) and therefore not subject to the aforesaid sales and compensating use taxes, provided that the subcontracts and purchase agreements provide for the resale of such tangible personal property and that such subcontracts and purchase agreements are in a form similar to this **Contract** with respect to the separation of the sale of consumable supplies and tangible personal property that the **Contractor** is required to remove from the **Site** during or upon completion of the **Work** from the **Work** and labor, services, and any other matters to be provided, and provided further that the subcontracts and

purchase agreements provide separate prices for tangible personal property and all other services and matters. Such separation shall actually be followed in practice, including the separation of payments for tangible personal property from the payments for other **Work** and labor and other things to be provided.

62.6 The **Contractor** and its **Subcontractors** and **Materialmen** shall furnish a **Contractor Exempt Purchase Certificate** to all persons, firms or corporations from which they purchase tangible personal property for the performance of the **Work** covered by this **Contract**.

62.7 In the event any of the provisions of this Article 62 shall be deemed to be in conflict with any other provisions of this **Contract** or create any ambiguity, then the provisions of this Article 62 shall control.

ARTICLE 63. INVESTIGATION(S) CLAUSE

63.1 The parties to this **Contract** agree to cooperate fully and faithfully with any investigation, audit or inquiry conducted by a United States, a State of New York (State) or a **City** governmental agency or authority that is empowered directly or by designation to compel the attendance of witnesses and to examine witnesses under oath, or conducted by the Inspector General of a governmental agency that is a party in interest to the transaction, submitted bid, submitted proposal, contract, lease, permit or license that is the subject of the investigation, audit or inquiry.

63.2 If any person who has been advised that his/her statement, and any information from such statement, will not be used against him/her in any subsequent criminal proceeding refuses to testify before a grand jury or other governmental agency or authority empowered directly or by designation to compel the attendance of witnesses and to examine witnesses under oath concerning the award of or performance under any transaction, agreement, lease, permit, contract, or license entered into with the **City**, the State, or any political subdivision or public authority thereof, or the Port Authority of New York and New Jersey, or any local development corporation within the **City**, or any public benefit corporation organized under the **Laws** of the State of New York, or;

63.3 If any person refuses to testify for a reason other than the assertion of his/her privilege against self incrimination in an investigation, audit or inquiry conducted by a **City** or State governmental agency or authority empowered directly or by designation to compel the attendance of witnesses and to take testimony under oath, or by the Inspector General of the governmental agency that is a party in interest in, and is seeking testimony concerning the award of, or performance under any transaction, agreement, lease, permit, contract, or license entered into with the **City**, the State, or any political subdivision thereof or any local development corporation within the **City**, then;

63.4 The **Commissioner** whose **Agency** is a party in interest to the transaction, submitted bid, submitted proposal, contract, lease, permit, or license shall convene a hearing, upon not less than five (5) **Days'** written notice to the parties involved to determine if any penalties should attach for the failure of a person to testify.

63.5 If any non-governmental party to the hearing requests an adjournment, the **Commissioner** who convened the hearing may, upon granting the adjournment, suspend any contract, lease, permit, or license, pending the final determination pursuant to Article 63.7 without the **City** incurring any penalty or damages for delay or otherwise.

63.6 The penalties which may attach after a final determination by the **Commissioner** may include but shall not exceed:

63.6.1 The disqualification for a period not to exceed five (5) years from the date of an adverse determination for any person, or any entity of which such person was a member at the time the testimony was sought, from submitting bids for, or transacting business with, or entering into or obtaining any contract, lease, permit or license with or from the **City**; and/or

63.6.2 The cancellation or termination of any and all such existing **City** contracts, leases, permits or licenses that the refusal to testify concerns and that have not been assigned as permitted under this **Contract**, nor the proceeds of which pledged, to an unaffiliated and unrelated institutional lender for fair value prior to the issuance of the notice scheduling the hearing, without the **City** incurring any penalty or damages on account of such cancellation or termination; monies lawfully due for goods delivered, work done, rentals, or fees accrued prior to the cancellation or termination shall be paid by the **City**.

63.7 The **Commissioner** shall consider and address in reaching his/her determination and in assessing an appropriate penalty the factors in Articles 63.7.1 and 63.7.2. The **Commissioner** may also consider, if relevant and appropriate, the criteria established in Articles 63.7.3 and 63.7.4, in addition to any other information which may be relevant and appropriate:

63.7.1 The party's good faith endeavors or lack thereof to cooperate fully and faithfully with any governmental investigation or audit, including but not limited to the discipline, discharge, or disassociation of any person failing to testify, the production of accurate and complete books and records, and the forthcoming testimony of all other members, agents, assignees or fiduciaries whose testimony is sought.

63.7.2 The relationship of the person who refused to testify to any entity that is a party to the hearing, including but not limited to, whether the person whose testimony is sought has an ownership interest in the entity and/or the degree of authority and responsibility the person has within the entity.

63.7.3 The nexus of the testimony sought to the subject entity and its contracts, leases, permits or licenses with the **City**.

63.7.4 The effect a penalty may have on an unaffiliated and unrelated party or entity that has a significant interest in an entity subject to penalties under Article 63.6, provided that the party or entity has given actual notice to the **Commissioner** upon the acquisition of the interest, or at the hearing called for in Article 63.4, gives notice and proves that such interest was previously acquired. Under either circumstance the party or entity shall present evidence at the hearing demonstrating the potential adverse impact a penalty will have on such person or entity.

63.8 Definitions:

63.8.1 The term "license" or "permit" as used in this Article 63 shall be defined as a license, permit, franchise or concession not granted as a matter of right.

63.8.2 The term "person" as used in this Article 63 shall be defined as any natural person doing business alone or associated with another person or entity as a partner, director, officer, principal or employee.

63.8.3 The term "entity" as used in this Article 63 shall be defined as any firm, partnership, corporation, association, joint venture, or person that receives monies, benefits, licenses, leases, or permits from or through the **City** or otherwise transacts business with the **City**.

63.8.4 The term "member" as used in this Article 63 shall be defined as any person associated with another person or entity as a partner, director, officer, principal or employee.

63.9 In addition to and notwithstanding any other provision of this **Contract**, the **Commissioner** may in his/her sole discretion terminate this **Contract** upon not less than three (3) **Days'** written notice in the event the **Contractor** fails to promptly report in writing to the **Commissioner** of the Department of Investigations ("DOI") of the **City** any solicitation of money, goods, requests for future employment or other benefit or thing of value, by or on behalf of any employee of the **City** or other person, firm, corporation or entity for any purpose which may be related to the procurement or obtaining of this **Contract** by the **Contractor**, or affecting the performance of this **Contract**.

ARTICLE 64. TERMINATION BY THE CITY

64.1 In addition to termination pursuant to any other article of this **Contract**, the **Commissioner** may, at any time, terminate this **Contract** by written notice to the **Contractor**. In the event of termination, the **Contractor** shall, upon receipt of such notice, unless otherwise directed by the **Commissioner**:

64.1.1 Stop **Work** on the date specified in the notice;

64.1.2 Take such action as may be necessary for the protection and preservation of the **City's** materials and property;

64.1.3 Cancel all cancelable orders for material and equipment;

64.1.4 Assign to the **City** and deliver to the **Site** or another location designated by the **Commissioner**, any non-cancelable orders for material and equipment that is not capable of use except in the performance of this **Contract** and has been specifically fabricated for the sole purpose of this **Contract** and not incorporated in the **Work**;

64.1.5 Take no action which will increase the amounts payable by the **City** under this **Contract**.

64.2 In the event of termination by the **City** pursuant to this Article 64, payment to the **Contractor** shall be in accordance with Articles 64.2.1, 64.2.2 or 64.2.3, to the extent that each respective article applies.

64.2.1 Lump Sum Contracts or Items: On all lump sum **Contracts**, or on lump sum items in a **Contract**, the **City** will pay the **Contractor** the sum of the amounts described in Articles 64.2.1(a) and 64.2.1(b), less all payments previously made pursuant to this **Contract**. On lump sum **Contracts** only, the **City** will also pay the **Contractor** an additional sum as provided in Article 64.2.1(c).

64.2.1(a) For **Work** completed prior to the notice of termination, the **Contractor** shall be paid a pro rata portion of the lump sum bid amount, plus approved change orders, based upon the percent completion of the **Work**, as determined by the **Commissioner**. For the purpose of determining the pro rata portion of the lump sum bid amount to which the **Contractor** is entitled, the bid breakdown submitted in accordance with Article 41 shall be considered, but shall not be dispositive. The **Commissioner's** determination hereunder shall be final, binding, and conclusive.

64.2.1(b) For non-cancelable material and equipment that is not capable of use except in the performance of this **Contract** and has been specifically fabricated for the sole purpose of this **Contract**, but not yet incorporated in the **Work**, the **Contractor** shall be paid the lesser of the following, less salvage value:

64.2.1(b)(i) The Direct Cost, as defined in Article 64.2.4; or

64.2.1(b)(ii) The fair and reasonable value, if less than Direct Cost, of such material and equipment, plus necessary and reasonable delivery costs.

64.2.1(b)(iii) In addition, the **Contractor** shall be paid five (5%) percent of the amount described in Article 64.2.1(b)(i) or Article 64.2.1(b)(ii), whichever applies.

64.2.1(c) Except as otherwise provided in Article 64.2.1(d), on all lump sum **Contracts**, the **Contractor** shall be paid the percentage indicated below applied to the difference between the total lump sum bid amount and the total of all payments made prior to the notice of termination plus all payments allowed pursuant to Articles 64.2.1(a) and 64.2.1(b):

64.2.1(c)(i) Five (5%) percent of the first five million (\$5,000,000) dollars; and

64.2.1(c)(ii) Three (3%) percent of any amount between five million (\$5,000,000) dollars and fifteen million (\$15,000,000) dollars; plus

64.2.1(c)(iii) One (1%) percent of any amount over fifteen million (\$15,000,000) dollars.

64.2.1(d) In the event the **City** terminates a lump sum **Contract** pursuant to this Article 64 within ninety (90) **Days** after registration of the **Contract** with the **Comptroller**, the **Contractor** shall be paid one (1%) percent of the difference between the lump sum bid amount and the total of all payments made pursuant to this Article 64.2.

64.2.2 Unit Price Contracts or Items: On all unit price **Contracts**, or on unit price items in a **Contract**, the **City** will pay the **Contractor** the sum of the amounts described in Articles 64.2.2(a) and 64.2.2(b), less all payments previously made pursuant to this **Contract**:

64.2.2(a) For all completed units, the unit price stated in the **Contract**, and

64.2.2(b) For units that have been ordered but are only partially completed, the **Contractor** will be paid:

64.2.2(b)(i) A pro rata portion of the unit price stated in the **Contract** based upon the percent completion of the unit and

64.2.2(b)(ii) For non-cancelable material and equipment, payment will be made pursuant to Article 64.2.1(b).

64.2.3 Time and Materials Contracts or Items Based on Time and Material Records: On all **Contracts** or items in a **Contract** where payment for the **Work** is based on time and

material records, the **Contractor** shall be paid in accordance with Article 26, less all payments previously made pursuant to this **Contract**.

64.2.4 Direct Costs: Direct Costs as used in this Article 64.2 shall mean:

64.2.4(a) The actual purchase price of material and equipment, plus necessary and reasonable delivery costs,

64.2.4(b) The actual cost of labor involved in construction and installation at the **Site**, and

64.2.4(c) The actual cost of necessary bonds and insurance purchased pursuant to requirements of this **Contract** less any amounts that have been or should be refunded by the **Contractor's** sureties or insurance carriers.

64.2.4(d) Direct Costs shall not include overhead.

64.3 In no event shall any payments under this Article 64 exceed the **Contract** price for such items.

64.4 All payments pursuant to Article 64 shall be in the nature of liquidated damages and shall be accepted by the **Contractor** in full satisfaction of all claims against the **City**.

64.5 The **City** may deduct or set off against any sums due and payable pursuant to this Article 64, any deductions authorized by this **Contract** or by **Law** (including but not limited to liquidated damages) and any claims it may have against the **Contractor**. The **City's** exercise of the right to terminate the **Contract** pursuant to this Article 64 shall not impair or otherwise effect the **City's** right to assert any claims it may have against the **Contractor** in a plenary action.

64.6 Where the **Work** covered by the **Contract** has been substantially completed, as determined in writing by the **Commissioner**, termination of the **Work** shall be handled as an omission of **Work** pursuant to Articles 29 and 33, in which case a change order will be issued to reflect an appropriate reduction in the **Contract** sum, or if the amount is determined after final payment, such amount shall be paid by the **Contractor**.

ARTICLE 65. CHOICE OF LAW, CONSENT TO JURISDICTION AND VENUE

65.1 This **Contract** shall be deemed to be executed in the **City** regardless of the domicile of the **Contractor**, and shall be governed by and construed in accordance with the **Laws** of the State of New York and the **Laws** of the United States, where applicable.

65.2 The parties agree that any and all claims asserted against the **City** arising under this **Contract** or related thereto shall be heard and determined in the courts of the State of New York ("New York State Courts") located in the **City** and County of New York. To effect this **Contract** and intent, the **Contractor** agrees:

65.2.1 If the **City** initiates any action against the **Contractor** in Federal court or in a New York State Court, service of process may be made on the **Contractor** either in person, wherever such **Contractor** may be found, or by registered mail addressed to the **Contractor** at its address as set forth in this **Contract**, or to such other address as the **Contractor** may provide to the **City** in writing; and

65.2.2 With respect to any action between the **City** and the **Contractor** in a New York State Court, the **Contractor** hereby expressly waives and relinquishes any rights it might otherwise have:

65.2.2(a) To move to dismiss on grounds of forum non conveniens;

65.2.2(b) To remove to Federal Court; and

65.2.2(c) To move for a change of venue to a New York State Court outside New York County.

65.2.3 With respect to any action brought by the **City** against the **Contractor** in a Federal Court located in the **City**, the **Contractor** expressly waives and relinquishes any right it might otherwise have to move to transfer the action to a Federal Court outside the **City**.

65.2.4 If the **Contractor** commences any action against the **City** in a court located other than in the **City** and County of New York, upon request of the **City**, the **Contractor** shall either consent to a transfer of the action to a New York State Court of competent jurisdiction located in the **City** and County of New York or, if the Court where the action is initially brought will not or cannot transfer the action, the **Contractor** shall consent to dismiss such action without prejudice and may thereafter reinstate the action in a New York State Court of competent jurisdiction in New York County.

65.3 If any provision(s) of this Article 65 is held unenforceable for any reason, each and all other provision(s) shall nevertheless remain in full force and effect.

ARTICLE 66. PARTICIPATION IN AN INTERNATIONAL BOYCOTT

66.1 The **Contractor** agrees that neither the **Contractor** nor any substantially owned affiliated company is participating or shall participate in an international boycott in violation of the provisions of the Federal Export Administration Act of 1979, as amended, or the regulations of the United States Department of Commerce (Commerce Department) promulgated thereunder.

66.2 Upon the final determination by the Commerce Department or any other agency of the United States as to, or conviction of the **Contractor** or a substantially-owned affiliated company thereof for participation in an international boycott in violation of the provisions of the Export Administration Act of 1979, as amended, or the regulations promulgated thereunder, the **Comptroller** may, at his/her option, render forfeit and void this **Contract**.

66.3 The **Contractor** shall comply in all respects, with the provisions of Section 6-114 of the Administrative Code and the rules and regulations issued by the **Comptroller** thereunder.

ARTICLE 67. LOCALLY BASED ENTERPRISE PROGRAM

67.1 This **Contract** is subject to the requirements of Section 6-108.1 of the Administrative Code and regulations promulgated thereunder. No construction contract shall be awarded unless and until these requirements have been complied with in their entirety; however, compliance with this Article 67 is not required if the Agency sets Subcontractor Participation Goals for Minority- and Women-Owned Business Enterprises (M/WBEs).

67.2 Unless specifically waived by the **Commissioner** with the approval of the Division of Economic and Financial Opportunity of the **City Department of Business Services**, if any portion of the **Contract** is subcontracted, not less than ten (10%) percent of the total dollar amount of the **Contract** shall be awarded to locally based enterprises (LBEs); except that where less than ten (10%) percent of the total dollar amount of the **Contract** is subcontracted, such lesser percentage shall be so awarded.

67.3 The **Contractor** shall not require performance and payment bonds from LBE **Subcontractors**.

67.4 If the **Contractor** has indicated prior to award that no **Work** will be subcontracted, no **Work** shall be subcontracted without the prior approval of the **Commissioner**, which shall be granted only if the **Contractor** makes a good faith effort beginning at least six (6) weeks before the **Work** is to be performed to obtain LBE **Subcontractors** to perform the **Work**.

67.5 If the **Contractor** has not identified sufficient LBE **Subcontractors** prior to award, it shall sign a letter of compliance stating that it complies with Section 6-108.1 of the Administrative Code, recognizes that achieving the LBE requirement is a condition of its **Contract**, and shall submit documentation demonstrating its good faith efforts to obtain LBEs. After award, the **Contractor** shall begin to solicit LBE's to perform subcontracted **Work** at least six (6) weeks before the date such **Work** is to be performed and shall demonstrate that a good faith effort has been made to obtain LBEs on each subcontract until it meets the required percentage.

67.6 Failure of the **Contractor** to comply with the requirements of Section 6-108.1 of the Administrative Code and the regulations promulgated thereunder shall constitute a material breach of this **Contract**. Remedy for such breach may include the imposition of any or all of the following sanctions:

67.6.1 Reducing the **Contractor's** compensation by an amount equal to the dollar value of the percentage of the LBE subcontracting requirement not complied with;

67.6.2 Declaring the **Contractor** in default;

67.6.3 If the **Contractor** is an LBE, de-certifying and declaring the **Contractor** ineligible to participate in the LBE program for a period of up to three (3) years.

ARTICLE 68. ANTITRUST

68.1 The **Contractor** hereby assigns, sells, and transfers to the **City** all right, title, and interest in and to any claims and causes of action arising under the antitrust **Laws** of New York State or of the United States relating to the particular goods or services purchased or procured by the **City** under this **Contract**.

ARTICLE 69. MacBRIDE PRINCIPLES PROVISIONS

69.1 Notice To All Prospective **Contractors**:

69.1.1 Local Law No. 34 of 1991 became effective on September 10, 1991 and added Section 6-115.1 of the Administrative Code. The local **Law** provides for certain restrictions on **City Contracts** to express the opposition of the people of the **City** to employment discrimination practices in Northern Ireland to promote freedom of work-place opportunity.

69.1.2 Pursuant to Section 6-115.1, prospective **Contractors** for **Contracts** to provide goods or services involving an expenditure of an amount greater than ten thousand

(\$10,000.) dollars, or for construction involving an amount greater than fifteen thousand (\$15,000.) dollars, are asked to sign a rider in which they covenant and represent, as a material condition of their **Contract**, that any business operations in Northern Ireland conducted by the **Contractor** and any individual or legal entity in which the **Contractor** holds a ten (10%) percent or greater ownership interest in the **Contractor** will be conducted in accordance with the MacBride Principles of nondiscrimination in employment.

69.1.3 Prospective **Contractors** are not required to agree to these conditions. However, in the case of **Contracts** let by competitive sealed bidding, whenever the lowest responsible bidder has not agreed to stipulate to the conditions set forth in this notice and another bidder who has agreed to stipulate to such conditions has submitted a bid within five (5%) percent of the lowest responsible bid for a **Contract** to supply goods, services or contraction of comparable quality, the **Agency** shall refer such bids to the Mayor, the Speaker or other officials, as appropriate, who may determine, in accordance with applicable **Law**, that it is in the best interest of the **City** that the **Contract** be awarded to other than the lowest responsible pursuant to Section 313(b)(2) of the **City** Charter.

69.1.4 In the case of **Contracts** let by other than competitive sealed bidding, if a prospective **Contractor** does not agree to these conditions, no **Agency**, elected official or the **City** Council shall award the **Contract** to that bidder unless the **Agency** seeking to use the goods, services or construction certifies in writing that the **Contract** is necessary for the **Agency** to perform its functions and there is no other responsible **Contractor** who will supply goods, services or construction of comparable quality at a comparable price.

69.2 In accordance with Section 6-115.1 of the Administrative Code, the **Contractor** stipulates that such **Contractor** and any individual or legal entity in which the **Contractor** holds a ten (10%) percent or greater ownership interest in the **Contractor** either:

69.2.1 Have no business operations in Northern Ireland, or

69.2.2 Shall take lawful steps in good faith to conduct any business operations they have in Northern Ireland in accordance with the MacBride Principles, and shall permit independent monitoring of their compliance with such principles.

69.3 For purposes of this Article, the following terms shall have the following meanings:

69.3.1 "MacBride Principles" shall mean those principles relating to nondiscrimination in employment and freedom of work-place opportunity which require employers doing business in Northern Ireland to:

69.3.1(a) increase the representation of individuals from under-represented religious groups in the workforce, including managerial, supervisory, administrative, clerical and technical jobs;

69.3.1(b) take steps to promote adequate security for the protection of employees from under-represented religious groups both at the work-place and while traveling to and from **Work**;

69.3.1(c) ban provocative religious or political emblems from the workplace;

69.3.1(d) publicly advertise all job openings and make special recruitment efforts to attract applicants from under-represented religious groups;

69.3.1(e) establish layoff, recall, and termination procedures which do not in practice favor a particular religious group;

69.3.1(f) abolish all job reservations, apprenticeship restrictions and different employment criteria which discriminate on the basis of religion;

69.3.1(g) develop training programs that will prepare substantial numbers of current employees from under-represented religious groups for skilled jobs, including the expansion of existing programs and the creation of new programs to train, upgrade, and improve the skills of workers from under-represented religious groups;

69.3.1(h) establish procedures to assess, identify, and actively recruit employees from under-represented religious groups with potential for further advancement; and

69.3.1(i) appoint a senior management staff member to oversee affirmative action efforts and develop a timetable to ensure their full implementation.

69.4 The **Contractor** agrees that the covenants and representations in Article 69.2 are material conditions to this **Contract**. In the event the **Agency** receives information that the **Contractor** who made the stipulation required by this Article 69 is in violation thereof, the **Agency** shall review such information and give the **Contractor** an opportunity to respond. If the **Agency** finds that a violation has occurred, the **Agency** shall have the right to declare the **Contractor** in default and/or terminate this **Contract** for cause and procure supplies, services or **Work** from another source in the manner the **Agency** deems proper. In the event of such termination, the **Contractor** shall pay to the **Agency**, or the **Agency** in its sole discretion may withhold from any amounts otherwise payable to the **Contractor**, the difference between the **Contract** price for the uncompleted portion of this **Contract** and the cost to the **Agency** of completing performance of this **Contract** either itself or by engaging another **Contractor** or **Contractors**. In the case of a requirement **Contract**, the **Contractor** shall be liable for such difference in price for the entire amount of supplies required by the **Agency** for the uncompleted term of **Contractor's Contract**. In the case of a construction **Contract**, the **Agency** shall also have the right to hold the **Contractor** in partial or total default in accordance with the default provisions of this **Contract**, and/or may seek debarment or suspension of the **Contractor**. The rights and remedies of the **Agency** hereunder shall be in addition to, and not in lieu of, any rights and remedies the **Agency** has pursuant to this **Contract** or by operation of **Law**.

ARTICLE 70. ELECTRONIC FILING/NYC DEVELOPMENT HUB

70.1 The **Contractor** shall electronically file all alteration type-2 and alteration type-3 applications via the New York City Development Hub Web site, except applications for the following types of minor alterations: enlargements, curb cuts, legalizations, fire alarms, builders pavement plans, and jobs filed on Landmark Preservation Commission calendared properties. All such filings must be professionally certified. Information about electronic filing via the New York City Development Hub is available on the **City** Department of Buildings Web site at www.nyc.gov/buildings.

ARTICLE 71. PROHIBITION OF TROPICAL HARDWOODS

71.1 Tropical hardwoods, as defined in Section 165 of the New York State Finance Law (Finance Law), shall not be utilized in the performance of this **Contract** except as expressly permitted by Section 165 of the Finance Law.

ARTICLE 72. CONFLICTS OF INTEREST

72.1 Section 2604 of the City Charter and other related provisions of the City Charter, the Administrative Code, and the Penal Law are applicable under the terms of this Contract in relation to conflicts of interest and shall be extended to Subcontractors authorized to perform Work, labor and services pursuant to this Contract and further, it shall be the duty and responsibility of the Contractor to so inform its respective Subcontractors. Notice is hereby given that, under certain circumstances, penalties may be invoked against the donor as well as the recipient of any form of valuable gift.

ARTICLE 73. MERGER CLAUSE

73.1 The written Contract herein, contains all the terms and conditions agreed upon by the parties hereto, and no other agreement, oral or otherwise, regarding the subject matter of this Contract shall be deemed to exist or to bind any of the parties hereto, or to vary any of the terms contained herein.

ARTICLE 74. STATEMENT OF WORK

74.1 The Contractor shall furnish all labor and materials and perform all Work in strict accordance with the Specifications and Addenda thereto, numbered 1.

ARTICLE 75. COMPENSATION TO BE PAID TO CONTRACTOR

75.1 The City will pay and the Contractor will accept in full consideration for the performance of the Contract, subject to additions and deductions as provided herein, the total sum of: Three million, eight hundred Dollars, (\$ 3,854,458.00), 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. fifty-four thousand, four hundred fifty-eight dollars.

ARTICLE 76. ELECTRONIC FUNDS TRANSFER

76.1 In accordance with Section 6-107.1 of the Administrative Code, the Contractor agrees to accept payments under this Contract from the City by electronic funds transfer (EFT). An EFT is any transfer of funds, other than a transaction originated by check, draft or similar paper instrument, which is initiated through an electronic terminal, telephonic instrument or computer or magnetic tape so as to order, instruct or authorize a financial institution to debit or credit an account. Prior to the first payment made under this Contract, the Contractor shall designate one financial institution or other authorized payment agent and shall complete the attached "EFT Vendor Payment Enrollment Form" in order to provide the Commissioner of the City Department of Finance with information necessary for the Contractor to receive electronic funds transfer payments through a designated financial institution or authorized payment agent. The crediting of the amount of a payment to the appropriate account on the books of a financial institution or other authorized payment agent designated by the Contractor shall constitute full satisfaction by the City for the amount of the payment under this Contract. The account information supplied by the Contractor to facilitate the electronic funds transfer shall remain confidential to the fullest extent provided by Law.

76.2 The Commissioner may waive the application of the requirements of this Article 76 to payments on contracts entered into pursuant to Section 315 of the City Charter. In addition, the Commissioner of the Department of Finance and the Comptroller may jointly issue standards pursuant to

which the Agency may waive the requirements of this Article 76 for payment in the following circumstances: (i) for individuals or classes of individuals for whom compliance imposes a hardship; (ii) for classifications or types of checks; or (iii) in other circumstances as may be necessary in the interest of the City.

ARTICLE 77. RECORDS RETENTION

77.1 The Contractor agrees to retain all books, records, and other documents relevant to this Contract for six years after the final payment or termination of this Contract, whichever is later. City, state, and federal auditors and any other persons duly authorized by the City shall have full access to and the right to examine any such books, records, and other documents during the retention period.

ARTICLE 78. PARTICIPATION BY MINORITY-OWNED AND WOMEN-OWNED BUSINESS ENTERPRISES IN CITY PROCUREMENT

NOTICE TO ALL PROSPECTIVE CONTRACTORS

ARTICLE I. M/WBE PROGRAM

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

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

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

PART A

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

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

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

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

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

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

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

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

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

C. THE BIDDER/PROPOSER MUST COMPLETE THE SCHEDULE B INCLUDED HEREIN (SCHEDULE B, PART II). A SCHEDULE B SUBMITTED BY THE BIDDER/PROPOSER WHICH DOES NOT INCLUDE THE VENDOR CERTIFICATION AND REQUIRED AFFIRMATIONS (SEE SECTION V OF PART II) WILL BE DEEMED TO BE NON-RESPONSIVE, UNLESS A FULL WAIVER OF THE PARTICIPATION GOALS IS GRANTED (SCHEDULE B, PART III). IN THE EVENT THAT THE CITY DETERMINES THAT THE BIDDER/PROPOSER HAS SUBMITTED A SCHEDULE B WHERE THE VENDOR CERTIFICATION AND REQUIRED AFFIRMATIONS ARE COMPLETED BUT OTHER ASPECTS OF THE SCHEDULE B ARE NOT COMPLETE, OR CONTAIN A COPY OR COMPUTATION ERROR THAT IS AT ODDS WITH THE VENDOR CERTIFICATION AND AFFIRMATIONS, THE BIDDER/PROPOSER WILL BE NOTIFIED BY THE AGENCY AND WILL BE GIVEN FOUR (4) CALENDAR DAYS FROM RECEIPT OF NOTIFICATION TO CURE THE SPECIFIED DEFICIENCIES AND RETURN A COMPLETED SCHEDULE B TO THE AGENCY. FAILURE TO DO SO WILL RESULT IN A DETERMINATION THAT THE BID/PROPOSAL IS NON-RESPONSIVE. RECEIPT OF NOTIFICATION IS DEFINED AS THE DATE NOTICE IS E-MAILED OR FAXED (IF THE BIDDER/PROPOSER HAS PROVIDED AN E-MAIL ADDRESS OR FAX NUMBER), OR NO LATER THAN FIVE (5) CALENDAR DAYS FROM THE DATE OF MAILING OR UPON DELIVERY, IF DELIVERED.

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

6. MBE and WBE firms must be certified by DSBS in order for the Contractor to credit such firms' participation toward the attainment of the **Participation Goals**. Such certification must occur prior to the

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

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

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

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

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

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

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

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

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

- (i) The Contractor advertised opportunities to participate in the Contract, where appropriate, in general circulation media, trade and professional association publications and small business media, and publications of minority and women's business organizations;
- (ii) The Contractor provided notice of specific opportunities to participate in the Contract, in a timely manner, to minority and women's business organizations;
- (iii) The Contractor sent written notices, by certified mail or facsimile, in a timely manner, to advise MBEs or WBEs that their interest in the Contract was solicited;
- (iv) The Contractor made efforts to identify portions of the work that could be substituted for portions originally designated for participation by MBEs and/or WBEs in the **M/WBE Utilization Plan**, and for which the Contractor claims an inability to retain MBEs or WBEs;
- (v) The Contractor held meetings with MBEs and/or WBEs prior to the date their bids or proposals were due, for the purpose of explaining in detail the scope and requirements of the work for which their bids or proposals were solicited;
- (vi) The Contractor made efforts to negotiate with MBEs and/or WBEs as relevant to perform specific subcontracts, or act as suppliers or service providers;
- (vii) Timely written requests for assistance made by the Contractor to Agency's **M/WBE liaison officer** and to DSBS;
- (viii) Description of how recommendations made by DSBS and Agency were acted upon and an explanation of why action upon such recommendations did not lead to the desired level of participation of MBEs and/or WBEs.

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

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

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

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

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

PART B: MISCELLANEOUS

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

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

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

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

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

ARTICLE II. ENFORCEMENT

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

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

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

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

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

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

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

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

IN WITNESS WHEREOF, the ^{Deputy} Commissioner, on behalf of the City of New York, and the Contractor, have executed this agreement in quadruplicate, two parts of which are to remain with the Commissioner, another to be filed with the Comptroller of the City, and the fourth to be delivered to the Contractor.

THE CITY OF NEW YORK

By: 
Deputy Commissioner

CONTRACTOR: JR CRUZ CORP.

By: 
(Member of Firm or Officer of Corporation)

Title: VICE PRESIDENT / SECRETARY

(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 21st day of Dec, 2017, before me personally came MATTHEW CRUZ to me known who, being by me duly sworn did depose and say that he resides at 74 HICKORY LN LIMCROFT NJ 07738 that he is the VICE PRESIDENT / SECRETARY 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.

BRENDA A. BARREIRO
Notary Public, State of New York
No. 01BA6351073
Qualified in Kings 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

ACKNOWLEDGEMENT BY COMMISSIONER

State of New York County of Queens ss:

On this 21st day of Dec., 2017, before me personally came Thomas Foley 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

BRENDA A. BARREIRO
Notary Public, State of New York
No. 01BA6351073
Qualified in Kings 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

Three million, eight hundred fifty-four thousand,
four hundred fifty-eight dollars.

Dollars (\$ 3,854,458.00)

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 92 to 95): Use if the total contract price is \$5 Million Or Less. Performance Bond #1 has been approved by the U.S. Small Business Administration (“SBA”) for participation in its Bond Guarantee Program.

PERFORMANCE BOND #1 (Page 1)

PERFORMANCE BOND #1

KNOW ALL PERSONS BY THESE PRESENTS;

That we, _____

hereinafter referred to as the “Principal,”
and, _____

hereinafter referred to as the “Surety” (“Sureties”) are held and firmly bound to THE CITY OF NEW YORK, hereinafter referred to as the “City” or to its successors and assigns in the penal sum of _____

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

WHEREAS, the Principal is about to enter, or has entered, into a Contract in writing with the City for _____

a copy of which Contract is annexed to and hereby made a part of this bond as though herein set forth in full;

NOW, THEREFORE, the conditions of this obligation are such that if the Principal, his or its representatives or assigns, shall well and faithfully perform the said Contract and all modifications, amendments, additions and alterations thereto that may hereafter be made, according to its terms and its true intent and meaning, including repair and or replacement of defective work and guarantees of maintenance for the periods stated in the Contract, and shall fully indemnify and save harmless the City from all cost and damage which it may suffer by reason of the Principal’s default of the Contract, and shall fully reimburse and repay the City for all outlay and expense which the City may incur in making

Performance Bond #1 (Pages 92 to 95): Use if the total contract price is \$5 Million Or Less. Performance Bond #1 has been approved by the U.S. Small Business Administration ("SBA") for participation in its Bond Guarantee Program.

Bond No. 015200837

PERFORMANCE BOND #1 (Page 1)

PERFORMANCE BOND #1

KNOW ALL PERSONS BY THESE PRESENTS,;

That we, _____

JRCruz Corp. _____

675 Line Road, Aberdeen, NJ 07747 _____

hereinafter referred to as the "Principal,"
and, _____

Liberty Mutual Insurance Company _____

1200 MacArthur Blvd., Mahwah, NJ 07430 _____

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 _____

Three Million Eight Hundred Fifty Four Thousand Four Hundred Fifty Eight Dollars and No/100 _____

(\$ 3,854,458.00) 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: HWPLZ011K, E-Pin: 85016B0128001, DDC Pin: 8502016HW0050C

Reconstruction of Zion Plaza - Borough of Brooklyn _____

a copy of which Contract is annexed to and hereby made a part of this bond as though herein set forth in full;

NOW, THEREFORE, the conditions of this obligation are such that if the Principal, his or its representatives or assigns, shall well and faithfully perform the said Contract and all modifications, amendments, additions and alterations thereto that may hereafter be made, according to its terms and its true intent and meaning, including repair and or replacement of defective work and guarantees of maintenance for the periods stated in the Contract, and shall fully indemnify and save harmless the City from all cost and damage which it may suffer by reason of the Principal's default of the Contract, and shall fully reimburse and repay the City for all outlay and expense which the City may incur in making

Performance Bond #1 (Pages 92 to 95): Use if the total contract price is \$5 Million Or Less. Performance Bond #1 has been approved by the U.S. Small Business Administration ("SBA") for participation in its Bond Guarantee Program.

PERFORMANCE BOND #1 (Page 2)

good any such default and shall protect the said City of New York against, and pay any and all amounts, damages, cost and judgments which may or shall be recovered against said City or its officers or agents or which the said City of New York may be called upon to pay any person or corporation by reason of any damages arising or growing out of the Principal's default of the Contract, then this obligation shall be null and void, otherwise to remain in full force and effect.

The Surety (Sureties), for value received, hereby stipulates and agrees, upon written notice from the City that the City has determined that the Principal is in default of the Contract, to (1) pay the City the cost to complete the contract as determined by the City in excess of the balance of the Contract held by the City, plus any damages or costs to which the City is entitled, up to the full amount of the above penal sum, (2) fully perform and complete the Work to be performed under the Contract, pursuant to the terms, conditions, and covenants thereof, or (3) tender a completion Contractor that is acceptable to the City. The Surety (Sureties) further agrees, at its option, either to notify the City that it elects to pay the city the cost of completion plus any applicable damages and costs under option (1) above, or to commence and diligently perform the Work specified in the Contract, including physical site work, within twenty-five (25) business days after written notice thereof from the City and, if the Surety elects to fully perform and complete the Work, then to complete all Work within the time set forth in the Contract or such other time as agreed to between the City and Surety in accordance with the Contract. If the Surety elects to tender payment pursuant to (1) above, then the Surety shall tender such amount within fifteen (15) business days notification from the City of the cost of completion. The Surety and the City reserve all rights and defenses each may have against the other; provided, however, that the Surety expressly agrees that its reservation of rights shall not provide a basis for non-performance of its obligation to pay the City the cost of completion, to commence and complete all Work as provided herein, or to tender a completion contractor.

The Surety (Sureties), for value received, for itself and its successors and assigns, hereby stipulates and agrees that the obligation of said Surety (Sureties) and its bond shall be in no way impaired or affected by any extension of time, modification, omission, addition, or change in or to the said Contract or the Work to be performed thereunder, or by any payment thereunder before the time required therein, or by any waiver of any provisions thereof, or any moneys due or to become due thereunder; and said Surety (Sureties) does hereby waive notice of any and all of such extensions, modifications, omissions, additions, changes, payments, and waivers, and hereby expressly stipulates and agrees that any and all things done and omitted to be done by and in relation to subcontractors shall have the same effect as to said Surety (Sureties) as though done or omitted to be done by or in relation to said Principal. Notwithstanding the above, if the City makes payments to the Principal before the time required by the contract that in the aggregate exceed \$100,000 or 10% of the Contract price, whichever is less, and that have not become earned prior to the Principal being found to be in default, then all payments made to the Principal before the time required by the Contract shall be added to the remaining contract value available to be paid for the completion of the Contract as if such sums had not been paid to the Principal, but shall not provide a basis for non-performance of its obligation to pay the City the cost of completion, to commence and to complete all Work as provided herein, or to tender a completion contractor.

Performance Bond #1 (Pages 92 to 95): Use if the total contract price is \$5 Million Or Less. Performance Bond #1 has been approved by the U.S. Small Business Administration ("SBA") for participation in its Bond Guarantee Program.

PERFORMANCE BOND #1 (Page 3)

IN WITNESS WHEREOF, The Principal and the Surety (Sureties) have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereunto affixed and these presents to be signed by their proper officers, this

_____ 18th _____ day of _____ December _____, 20 17 _____
(Seal)

JRCruz Corp. _____ (L.S.)

Principal

(Seal)

By: Matthew J. Cruz
Matthew J. Cruz, Vice President/Secretary
Surety
Liberty Mutual Insurance Company

(Seal)

By: Lisa Nosal
Lisa Nosal, Atty-In-Fact P: 973-890-0900 F: 973-890-9038
Surety

(Seal)

By: _____
Surety

(Seal)

By: _____
Surety

(Seal)

By: _____
Surety

By: _____

Bond Premium Rate _____

Bond Premium Cost _____

If the Contractor (Principal) is a partnership, the bond should be signed by each of the individuals who are partners.

If the Contractor (Principal) is a corporation, the bond should be signed in its correct corporate name by a duly authorized officer, agent, or attorney-in-fact.

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

Performance Bond #1 (Pages 92 to 95): Use if the total contract price is \$5 Million Or Less. Performance Bond #1 has been approved by the U.S. Small Business Administration ("SBA") for participation in its Bond Guarantee Program.

PERFORMANCE BOND #1 (Page 4)

ACKNOWLEDGMENT OF PRINCIPAL IF A CORPORATION

State of New Jersey County of Monmouth ss:

On this 18th day of December, 2017 before me personally came Matthew J. Cruz

to me known, who, being by me duly sworn did depose and say that he/she resides

at 74 Hickory Lane, Lincroft, NJ 07738; that he/she is the Vice President/Secretary

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.

ROSIE CATAO
ID # 2221271
NOTARY PUBLIC
STATE OF NEW JERSEY
My Commission Expires January 22, 2019

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.

CITY OF NEW YORK
DDC

95

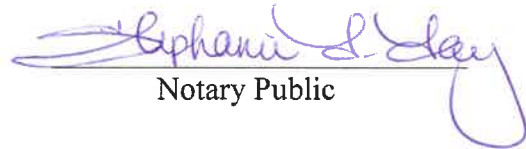
STANDARD CONSTRUCTION CONTRACT
December 2013

ACKNOWLEDGEMENT OF SURETY

State of New Jersey]
]-ss
County of Passaic]

On 12/18/2017, before me personally came Lisa Nosal to me known, who, being by me duly sworn, did depose and say that she is an attorney-in-fact of Liberty Mutual Insurance Company the corporation described in and which executed the within instrument; that she knows the corporate seal of said corporation, and that the seal affixed to the within instrument is such corporate seal, and that she signed the said instrument and affixed the said seal as Attorney-in-Fact by authority of the Board of Directors of said corporation and by authority of this office under the Standing Resolutions thereof.

My Commission expires:


Notary Public

STEPHANIE F. FOY
NOTARY PUBLIC
STATE OF NEW JERSEY
MY COMMISSION EXPIRES OCTOBER 27, 2018

THIS POWER OF ATTORNEY IS NOT VALID UNLESS IT IS PRINTED ON RED BACKGROUND.

This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

Certificate No. 7937422

Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company West American Insurance Company

POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS: That The Ohio Casualty Insurance Company is a corporation duly organized under the laws of the State of New Hampshire, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Lisa Nosal; Pamela J. Boyle; Robert E. Culnen; Joseph W. Mallory; Louis A. Vlahakes

all of the city of Totowa, state of NJ each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons.

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 13th day of November, 2017.



The Ohio Casualty Insurance Company
Liberty Mutual Insurance Company
West American Insurance Company

By: David M. Carey
David M. Carey, Assistant Secretary

STATE OF PENNSYLVANIA ss
COUNTY OF MONTGOMERY

On this 13th day of November, 2017, before me personally appeared David M. Carey, who acknowledged himself to be the Assistant Secretary of Liberty Mutual Insurance Company, The Ohio Casualty Company, and West American Insurance Company, and that he, as such, being authorized so to do, execute 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 have hereunto subscribed my name and affixed my notarial seal at King of Prussia, Pennsylvania, on the day and year first above written.



COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Teresa Pastella, Notary Public
Upper Merion Twp., Montgomery County
My Commission Expires March 28, 2021
Member Pennsylvania Association of Notaries

By: Teresa Pastella
Teresa Pastella, Notary Public

This Power of Attorney is made and executed pursuant to and by authority of the following By-laws and Authorizations of The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American insurance Company which resolutions are now in full force and effect reading as follows:

ARTICLE IV – OFFICERS – Section 12. Power of Attorney. Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and execution of any such instruments and to attach thereto the seal of the Corporation. When so executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

ARTICLE XIII – Execution of Contracts – SECTION 5. Surety Bonds and Undertakings. Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the president and attested by the secretary.

Certificate of Designation – The President of the Company, acting pursuant to the Bylaws of the Company, authorizes David M. Carey, Assistant Secretary to appoint such attorneys-in-fact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

Authorization – By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, Renee C. Llewellyn, the undersigned, Assistant Secretary, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, 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 18th day of December, 2017.



By: Renee C. Llewellyn
Renee C. Llewellyn, Assistant Secretary

Not valid for mortgage, note, loan, letter of credit, currency rate, interest rate or dual value guarantees.

To confirm the validity of this Power of Attorney call 1-610-832-8240 between 9:00 am and 4:30 pm EST on any business day.



LIBERTY MUTUAL INSURANCE COMPANY
FINANCIAL STATEMENT — DECEMBER 31, 2016

Assets	Liabilities
Cash and Bank Deposits	Unearned Premiums.....
\$1,092,914,837	\$6,929,723,299
*Bonds — U.S Government	Reserve for Claims and Claims Expense
1,406,763,970	17,233,877,300
*Other Bonds.....	Funds Held Under Reinsurance Treaties.....
11,379,916,523	208,362,823
*Stocks	Reserve for Dividends to Policyholders.....
10,349,761,988	944,909
Real Estate.....	Additional Statutory Reserve.....
290,265,760	39,649,905
Agents' Balances or Uncollected Premiums.....	Reserve for Commissions, Taxes and
4,709,977,463	Other Liabilities
Accrued Interest and Rents.....	3,061,117,958
112,757,395	Total
Other Admitted Assets.....	\$27,473,676,194
<u>14,659,523,751</u>	Special Surplus Funds.....
Total Admitted Assets	\$95,257,334
<u>\$44,001,881,687</u>	Capital Stock.....
	10,000,000
	Paid in Surplus
	9,229,250,104
	Unassigned Surplus.....
	7,193,698,055
	Surplus to Policyholders
	16,528,205,493
	Total Liabilities and Surplus.....
	<u>\$44,001,881,687</u>



* Bonds are stated at amortized or investment value; Stocks at Association Market Values.
The foregoing financial information is taken from Liberty Mutual Insurance Company's financial statement filed with the state of Massachusetts Department of Insurance.

I, TIM MIKOLAJEWSKI, Assistant Secretary of Liberty Mutual Insurance Company, do hereby certify that the foregoing is a true, and correct statement of the Assets and Liabilities of said Corporation, as of December 31, 2016, to the best of my knowledge and belief.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of said Corporation at Seattle, Washington, this 23rd day of March, 2017.

TAMikolajewski

Assistant Secretary

Payment Bond (Pages 100 to 103): Use for any contract for which a Payment Bond is required.

Bond No. 015200837

PAYMENT BOND (Page 1)

PAYMENT BOND

KNOW ALL PERSONS BY THESE PRESENTS, That we, _____

JRCruz Corp.

675 Line Road, Aberdeen, NJ 07747

hereinafter referred to as the "Principal", and _____

Liberty Mutual Insurance Company

1200 MacArthur Blvd., Mahwah, NJ 07430

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

Three Million Eight Hundred Fifty Four Thousand Four Hundred Fifty Eight Dollars and No/100

(\$ 3,854,458.00) 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: HWPLZ011K, E-Pin: 85016B0128001, DDC Pin: 8502016HW0050C

Reconstruction of Zion Plaza - Borough of Brooklyn

a copy of which Contract is annexed to and hereby made a part of this bond as though herein set forth in full;

NOW, THEREFORE, the conditions of this obligation are such that if the Principal, his or its representatives or assigns and other Subcontractors to whom Work under this Contract is sublet and his or their successors and assigns shall promptly pay or cause to be paid all lawful claims for

(a) Wages and compensation for labor performed and services rendered by all persons engaged in the prosecution of the Work under said Contract, and any amendment or extension thereof or addition thereto, whether such persons be agents servants or employees of the Principal or any such Subcontractor, including all persons so engaged who perform the work of laborers or mechanics at or in the vicinity of the site

Payment Bond (Pages 100 to 103): Use for any contract for which a Payment Bond is required.

PAYMENT BOND (Page 2)

of the Project regardless of any contractual relationship between the Principal or such Subcontractors, or his or their successors or assigns, on the one hand and such laborers or mechanics on the other, but not including office employees not regularly stationed at the site of the project; and

(b) Materials and supplies (whether incorporated in the permanent structure or not), as well as teams, fuels, oils, implements or machinery furnished, used or consumed by said Principal or any subcontractor at or in the vicinity of the site of the Project in the prosecution of the Work under said Contract and any amendment or extension thereof or addition thereto; then this obligation shall be void, otherwise to remain in full force and effect.

This bond is subject to the following additional conditions, limitations and agreements:

(a) The Principal and Surety (Sureties) agree that this bond shall be for the benefit of any materialmen or laborer having a just claim, as well as the City itself.

(b) All persons who have performed labor, rendered services or furnished materials and supplies, as aforesaid, shall have a direct right of action against the Principal and his, its or their successors and assigns, and the Surety (Sureties) herein, or against either or both or any of them and their successors and assigns. Such persons may sue in their own name, and may prosecute the suit to judgment and execution without the necessity of joining with any other persons as party plaintiff.

(c) The Principal and Surety (Sureties) agree that neither of them will hold the City liable for any judgment for costs of otherwise, obtained by either or both of them against a laborer or materialman in a suit brought by either a laborer or materialman under this bond for moneys allegedly due for performing work or furnishing material.

(d) The Surety (Sureties) or its successors and assigns shall not be liable for any compensation recoverable by an employee or laborer under the Workmen's Compensation Law.

(e) In no event shall the Surety (Sureties), or its successors or assigns, be liable for a greater sum than the penalty of this bond or be subject to any suit, action or proceeding hereon that is instituted by any person, firm, or corporation hereunder later than two years after the complete performance of said Contract and final settlement thereof.

The Principal, for himself and his successors and assigns, and the Surety (Sureties), for itself and its successors and assigns, do hereby expressly waive any objection that might be interposed as to the right of the City to require a bond containing the foregoing provisions, and they do hereby further expressly waive any defense which they or either of them might interpose to an action brought hereon by any person, firm or corporation, including subcontractors, materialmen and third persons, for work, labor, services, supplies or material performed rendered, or furnished as aforesaid upon the ground that there is no law authorizing the City to require the foregoing provisions to be place in this bond.

And the Surety (Sureties), for value received, for itself and its successors and assigns, hereby stipulates and agrees that the obligation of said Surety (Sureties), and its bonds shall be in no way impaired or affected by any extension of time, modification, omission, addition, or change in or of the said Contract or the work to be performed thereunder, or by any payment thereunder before the time required therein, or by any waiver of any provisions thereof, or by any assignment, subletting or other transfer thereof or of any part thereof, or of any Work to be performed, or any moneys due to become due thereunder and said Surety (Sureties) does hereby waive notice of any and all of such extensions, modifications, omissions, additions, changes, payments, waivers, assignments, subcontracts and transfers, and hereby expressly stipulates and agrees that any and all things done and omitted to be done by and in relation to assignees, Subcontractors, and other transferees shall have the same effect as to said Surety (Sureties) as though done or omitted to be done or in relation to said Principal.

Payment Bond (Pages 100 to 103): Use for any contract for which a Payment Bond is required.

PAYMENT BOND (Page 3)

IN WITNESS WHEREOF, the Principal and the Surety (Sureties) have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereunto affixed and these presents to be signed by their proper officers, this 18th day of December, 2017.

(Seal)

JRCruz Corp. _____ (L.S.)

Principal

By: _____

Matthew J. Cruz, Vice President/Secretary

(Seal)

Liberty Mutual Insurance Company

Surety

By: _____

Lisa Nosal, Atty-In-Fact P: 973-890-0900 F: 973-890-9038

(Seal)

Surety

By: _____

(Seal)

Surety

By: _____

(Seal)

Surety

By: _____

If the Contractor (Principal) is a partnership, the bond should be signed by each of the individuals who are partners.

If the Contractor (Principal) is a corporation, the bond should be signed in its correct corporate name by a duly authorized officer, agent, or attorney-in-fact.

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

Payment Bond (Pages 100 to 103): Use for any contract for which a Payment Bond is required.

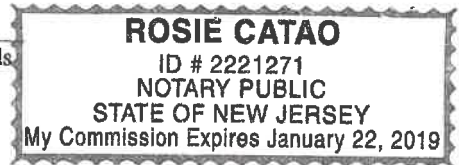
PAYMENT BOND (Page 4)

ACKNOWLEDGMENT OF PRINCIPAL, IF A CORPORATION

State of New Jersey County of Monmouth ss:

On this 18th day of December, 2017, before me personally came Matthew J. Cruz to me known, who, being by me duly sworn did depose and say that he resides at 74 Hickory Lane, Lincroft, NJ 07738 that he is the Vice President/Secretary 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.

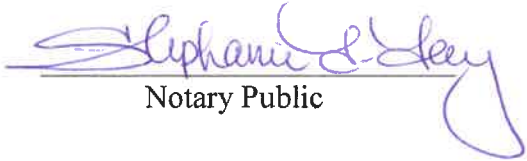
Affix Acknowledgments and Justification of Sureties.

ACKNOWLEDGEMENT OF SURETY

State of New Jersey]
]-ss
County of Passaic]

On 12/18/2017, before me personally came Lisa Nosal to me known, who, being by me duly sworn, did depose and say that she is an attorney-in-fact of Liberty Mutual Insurance Company the corporation described in and which executed the within instrument; that she knows the corporate seal of said corporation, and that the seal affixed to the within instrument is such corporate seal, and that she signed the said instrument and affixed the said seal as Attorney-in-Fact by authority of the Board of Directors of said corporation and by authority of this office under the Standing Resolutions thereof.

My Commission expires:


Notary Public

STEPHANIE F. FOY
NOTARY PUBLIC
STATE OF NEW JERSEY
MY COMMISSION EXPIRES OCTOBER 27, 2018

THIS POWER OF ATTORNEY IS NOT VALID UNLESS IT IS PRINTED ON RED BACKGROUND.

This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

Certificate No. 7937423

Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company West American Insurance Company

POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS: That The Ohio Casualty Insurance Company is a corporation duly organized under the laws of the State of New Hampshire, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Lisa Nosal; Pamela J. Boyle; Robert E. Culnen; Joseph W. Mallory; Louis A. Vlahakes

all of the city of Totowa, state of NJ each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons.

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 13th day of November, 2017.



The Ohio Casualty Insurance Company
Liberty Mutual Insurance Company
West American Insurance Company

By: David M. Carey
David M. Carey, Assistant Secretary

STATE OF PENNSYLVANIA ss
COUNTY OF MONTGOMERY

On this 13th day of November, 2017, before me personally appeared David M. Carey, who acknowledged himself to be the Assistant Secretary of Liberty Mutual Insurance Company, The Ohio Casualty Company, and West American Insurance Company, and that he, as such, being authorized so to do, execute 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 have hereunto subscribed my name and affixed my notarial seal at King of Prussia, Pennsylvania, on the day and year first above written.



COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Teresa Pastella, Notary Public
Upper Merion Twp., Montgomery County
My Commission Expires March 28, 2021
Member, Pennsylvania Association of Notaries

By: Teresa Pastella
Teresa Pastella, Notary Public

This Power of Attorney is made and executed pursuant to and by authority of the following By-laws and Authorizations of The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company which resolutions are now in full force and effect reading as follows:

ARTICLE IV – OFFICERS – Section 12. Power of Attorney. Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and execution of any such instruments and to attach thereto the seal of the Corporation. When so executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

ARTICLE XIII – Execution of Contracts – SECTION 5. Surety Bonds and Undertakings. Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the president and attested by the secretary.

Certificate of Designation – The President of the Company, acting pursuant to the Bylaws of the Company, authorizes David M. Carey, Assistant Secretary to appoint such attorneys-in-fact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

Authorization – By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, Renee C Llewellyn, the undersigned, Assistant Secretary, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, 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 18th day of December, 20 17.



By: Renee C. Llewellyn
Renee C. Llewellyn, Assistant Secretary

Not valid for mortgage, note, loan, letter of credit, currency rate, interest rate or dual value guarantees.

To confirm the validity of this Power of Attorney call 1-610-832-8240 between 9:00 am and 4:30 pm EST on any business day.



LIBERTY MUTUAL INSURANCE COMPANY
FINANCIAL STATEMENT — DECEMBER 31, 2016

Assets	Liabilities
Cash and Bank Deposits..... \$1,092,914,837	Unearned Premiums..... \$6,929,723,299
*Bonds — U.S Government..... 1,406,763,970	Reserve for Claims and Claims Expense..... 17,233,877,300
*Other Bonds..... 11,379,916,523	Funds Held Under Reinsurance Treaties..... 208,362,823
*Stocks..... 10,349,761,988	Reserve for Dividends to Policyholders..... 944,909
Real Estate..... 290,265,760	Additional Statutory Reserve..... 39,649,905
Agents' Balances or Uncollected Premiums..... 4,709,977,463	Reserve for Commissions, Taxes and
Accrued Interest and Rents..... 112,757,395	Other Liabilities..... <u>3,061,117,958</u>
Other Admitted Assets..... <u>14,659,523,751</u>	Total..... \$27,473,676,194
Total Admitted Assets..... <u>\$44,001,881,687</u>	Special Surplus Funds..... \$95,257,334
	Capital Stock..... 10,000,000
	Paid in Surplus..... 9,229,250,104
	Unassigned Surplus..... 7,193,698,055
	Surplus to Policyholders..... <u>16,528,205,493</u>
	Total Liabilities and Surplus..... <u>\$44,001,881,687</u>



* Bonds are stated at amortized or investment value; Stocks at Association Market Values.
The foregoing financial information is taken from Liberty Mutual Insurance Company's financial statement filed with the state of Massachusetts Department of Insurance.

I, TIM MIKOLAJEWSKI, Assistant Secretary of Liberty Mutual Insurance Company, do hereby certify that the foregoing is a true, and correct statement of the Assets and Liabilities of said Corporation, as of December 31, 2016, to the best of my knowledge and belief.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of said Corporation at Seattle, Washington, this 23rd day of March, 2017.

TAMIKOLAJEWSKI

Assistant Secretary



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
12/18/2017

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 TransAmerican Associates Inc. 651 Old Mount Pleasant Avenue Suite 255 Livingston NJ 07039	CONTACT NAME: John D Rocco PHONE (A/C, No, Ext): (973)251-2646 E-MAIL ADDRESS: jrocco@taains.com	FAX (A/C, No): (973)251-2651													
	<table border="1"> <thead> <tr> <th>INSURER(S) AFFORDING COVERAGE</th> <th>NAIC #</th> </tr> </thead> <tbody> <tr> <td>INSURER A: Starr Indemnity & Liability Company</td> <td>38318</td> </tr> <tr> <td>INSURER B: United States Fire Insurance</td> <td>21113</td> </tr> <tr> <td>INSURER C: State Insurance Fund of New York</td> <td>36102</td> </tr> <tr> <td>INSURER D: Endurance American Insurance Co</td> <td>10641</td> </tr> <tr> <td>INSURER E: Aspen American Insurance Company</td> <td>43460</td> </tr> <tr> <td>INSURER F: Columbia Casualty Company</td> <td>31127</td> </tr> </tbody> </table>		INSURER(S) AFFORDING COVERAGE	NAIC #	INSURER A: Starr Indemnity & Liability Company	38318	INSURER B: United States Fire Insurance	21113	INSURER C: State Insurance Fund of New York	36102	INSURER D: Endurance American Insurance Co	10641	INSURER E: Aspen American Insurance Company	43460	INSURER F: Columbia Casualty Company
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COVERAGES **CERTIFICATE NUMBER:** CL1791308384 **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 INSP. 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 GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:		1000090014171	6/30/2017	7/1/2018	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 50,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 10,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000
B	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS		1337414031	6/30/2017	7/1/2018	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
A D	<input checked="" type="checkbox"/> UMBRELLA LIAB <input type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED <input checked="" type="checkbox"/> RETENTION \$ 10,000		1000095007171 EXC10007347502	6/30/2017 6/30/2017	7/1/2018 7/1/2018	EACH OCCURRENCE \$ 10,000,000 AGGREGATE \$ 10,000,000
C	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	G 13237946	4/1/2017	4/1/2018	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$
E F	CONTRACTOR'S EQUIPMENT PROFESSIONAL LIABILITY		IM2267017 CE0591863631	6/30/2017 9/18/2017	7/1/2018 9/18/2018	PER RENTAL ITEM 1,000,000 LIMIT PER OCC & AGG 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
PROJECT HWPLZ011K - RECONSTRUCTION OF ZION PLAZA - BOROUGH OF BROOKLYN. ONLY AS RESPECTS TO WORK PERFORMED BY THE INSURED. CITY OF NEW YORK, INCLUDING ITS OFFICIALS AND EMPLOYEES WITH COVERAGE AT LEAST AS BROAD AS ISO FORM CG2010 AND CG2037. ALL PERSON(S) OR ORGANIZATION(S), IF ANY, THAT ARTICLE 22.1 (B) OF THE CONTRACT REQUIRES TO BE NAMED ADDITIONAL INSURED(S) WITH COVERAGE AT LEAST AS BROAD AS ISO FORM CG2026. THE ADDITIONAL INSURED ENDORSEMENT SHALL EITHER SPECIFY THE ENTITY'S NAME, IF KNOWN, OR THE ENTITY'S TITLE. (E.G., PROJECT MANAGER)

CERTIFICATE HOLDER

CITY OF NEW YORK
DEPARTMENT OF DESIGN & CONSTRUCTION
30-30 THOMSON AVE
4TH FLOOR (IDCNY BUILDING)
LONG ISLAND CITY, NY 11101

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

John D Rocco/LISAS



CERTIFICATE OF PROPERTY INSURANCE

DATE (MM/DD/YYYY)

12/18/2017

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.

If this certificate is being prepared for a party who has an insurable interest in the property, do not use this form. Use ACORD 27 or ACORD 28.

PRODUCER TransAmerican Associates Inc. 651 Old Mount Pleasant Avenue Suite 255 Livingston NJ 07039	CONTACT NAME: John D Rocco PHONE (A/C No, Ext): (973) 251-2646 E-MAIL ADDRESS: jrocco@taains.com PRODUCER CUSTOMER ID: 00000070	FAX (A/C, No): (973) 251-2651
	INSURER(S) AFFORDING COVERAGE	
INSURED JRCRUZ Corp. 675 Line Road Aberdeen NJ 07747	INSURER A: Aspen American Insurance Company NAIC # 43460	
	INSURER B:	
	INSURER C:	
	INSURER D:	
	INSURER E:	
	INSURER F:	

COVERAGES **CERTIFICATE NUMBER:** CP1762300513 **REVISION NUMBER:**

LOCATION OF PREMISES / DESCRIPTION OF PROPERTY (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

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	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YYYY)	POLICY EXPIRATION DATE (MM/DD/YYYY)	COVERED PROPERTY	LIMITS	
A	<input checked="" type="checkbox"/> PROPERTY	ENGINEER'S FIELD OFFICE	6/30/2017	7/1/2018	BUILDING	\$	
	CAUSES OF LOSS				PERSONAL PROPERTY	\$	
	BASIC				BUSINESS INCOME	\$	
	BROAD				EXTRA EXPENSE	\$	
	<input checked="" type="checkbox"/> SPECIAL				CONTENTS	RENTAL VALUE	\$
					EARTHQUAKE	BLANKET BUILDING	\$
	WIND				<input checked="" type="checkbox"/> BLANKET PERS PROP	\$ 500,000	
	FLOOD				BLANKET BLDG & PP	\$	
						\$	
						\$	
	INLAND MARINE	TYPE OF POLICY			\$		
	CAUSES OF LOSS				\$		
	NAMED PERILS	POLICY NUMBER			\$		
					\$		
	CRIME				\$		
	TYPE OF POLICY				\$		
					\$		
	BOILER & MACHINERY / EQUIPMENT BREAKDOWN				\$		
					\$		
					\$		

SPECIAL CONDITIONS / OTHER COVERAGES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

PROJECT HWPLZ011K - RECONSTRUCTION OF ZION PLAZA - BOROUGH OF BROOKLYN. ONLY AS RESPECTS TO WORK PERFORMED BY THE INSURED. CITY OF NEW YORK, INCLUDING ITS OFFICIALS AND EMPLOYEES WITH COVERAGE AT LEAST AS BROAD AS ISO FORM CG2010 AND CG2037. ALL PERSON(S) OR ORGANIZATION(S), IF ANY, THAT ARTICLE 22.1 (B) OF THE CONTRACT REQUIRES TO BE NAMED ADDITIONAL INSURED(S) WITH

CERTIFICATE HOLDER

CANCELLATION

CITY OF NEW YORK DEPARTMENT OF DESIGN & CONSTRUCTION 30-30 THOMSON AVE 4TH FLOOR (IDCNY BUILDING) 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 John D Rocco/LISAS

COMMENTS/REMARKS

COVERAGE AT LEAST AS BROAD AS ISO FORM CG2026. THE ADDITIONAL INSURED ENDORSEMENT SHALL EITHER SPECIFY THE ENTITY'S NAME, IF KNOWN, OR THE ENTITY'S TITLE. (E.G., PROJECT MANAGER)



New York State Insurance Fund

Workers' Compensation & Disability Benefits Specialists Since 1914

199 CHURCH STREET, NEW YORK, N.Y. 10007-1100

CERTIFICATE OF WORKERS' COMPENSATION INSURANCE

***** 223373796

LOVELL SAFETY MGMT CO., LLC
110 WILLIAM STREET 12TH FLR
NEW YORK NY 10038



Scan to Validate

POLICYHOLDER JRCRUZ CORP. 675 LINE ROAD ABERDEEN NJ 07747		CERTIFICATE HOLDER (IDCNY BUILDING) CITY OF NEW YORK DEPARTMENT OF DESIGN & CONSTRUCTION 30-30 THOMSON AVE, 4TH FLOOR LONG ISLAND CITY NY 11101	
POLICY NUMBER G1323 794-6	CERTIFICATE NUMBER 114665	POLICY PERIOD 04/01/2017 TO 04/01/2018	DATE 12/18/2017

THIS IS TO CERTIFY THAT THE POLICYHOLDER NAMED ABOVE IS INSURED WITH THE NEW YORK STATE INSURANCE FUND UNDER POLICY NO. 1323 794-6, COVERING THE ENTIRE OBLIGATION OF THIS POLICYHOLDER FOR WORKERS' COMPENSATION UNDER THE NEW YORK WORKERS' COMPENSATION LAW WITH RESPECT TO ALL OPERATIONS IN THE STATE OF NEW YORK, EXCEPT AS INDICATED BELOW.

IF YOU WISH TO RECEIVE NOTIFICATIONS REGARDING SAID POLICY, INCLUDING ANY NOTIFICATION OF CANCELLATIONS, OR TO VALIDATE THIS CERTIFICATE, VISIT OUR WEBSITE AT [HTTPS://WWW.NYSIF.COM/CERT/CERTVAL.ASP](https://www.nysif.com/cert/certval.asp). THE NEW YORK STATE INSURANCE FUND IS NOT LIABLE IN THE EVENT OF FAILURE TO GIVE SUCH NOTIFICATIONS.

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS NOR INSURANCE COVERAGE UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICY.

NEW YORK STATE INSURANCE FUND

DIRECTOR,INSURANCE FUND UNDERWRITING

VALIDATION NUMBER: 80634718



CERTIFICATE OF INSURANCE COVERAGE UNDER THE NYS DISABILITY BENEFITS LAW

PART 1. To be completed by Disability Benefits Carrier or Licensed Insurance Agent of that Carrier

<p>1a. Legal Name and Address of Insured (Use street address only) JR CRUZ CORP. 675 LINE ROAD ABERDEEN, NJ 07747</p> <p>Work Location of Insured (Only required if coverage is specifically limited to certain locations in New York State, i.e., a Wrap-Up Policy)</p>	<p>1b. Business Telephone Number of Insured (732) 290-0700</p> <p>1c. NYS Unemployment Insurance Employer Registration Number of Insured 46107757</p> <p>1d. Federal Employer Identification Number of Insured or Social Security Number 22 3373796</p>
<p>2. Name and Address of the Entity Requesting Proof of Coverage (Entity Being Listed as the Certificate Holder) NYC DEPARTMENT OF DESIGN AND CONSTRUCTION 3030 THOMSON AVE LONG ISLAND CITY NY 11101</p>	<p>3a. Name of Insurance Carrier The Guardian Life Insurance Company of America</p> <p>3b. Policy Number of entity listed in box "1a": 00952226-0001</p> <p>3c. Policy effective period: 06/13/2017 to 06/13/2018</p>

4. Policy Covers:
- a. All of the employer's employees eligible under the New York Disability Benefits Law
 - b. Only the following class or classes of the employer's employees:

Under penalty of perjury, I certify that I am an authorized representative or licensed agent of the insurance carrier referenced above and that the named insured has NYS Disability Benefits insurance coverage as described above.

Stuart J. Shaw

Date Signed: 06/15/2017

By: Stuart J. Shaw, FSA, MAAA

(Signature of insurance carrier's authorized representative or NYS Licensed Insurance Agent of that insurance carrier)

Telephone Number: 1-888-278-4542

Title: Vice President, Group Insurance

IMPORTANT: If Box "4a" is checked, and this form is signed by the insurance carrier's authorized representative or NYS Licensed Insurance Agent of that carrier, this certificate is COMPLETE. Mail it directly to the certificate holder. If Box "4b" is checked, this certificate is NOT COMPLETE for purposes of Section 220, Subd. 8 of the Disability Benefits Law. It must be mailed for completion to the Workers' Compensation Board, DB Plans Acceptance Unit, 328 State Street, Schenectady, NY 12305

PART 2. To be completed by NYS Workers' Compensation Board (Only if box "4b" of Part 1 has been checked)

**State Of New York
Workers' Compensation Board**

According to information maintained by the NYS Workers' Compensation Board, the above-named employer has complied with the NYS Disability Benefits Law with respect to all of his/her employees.

Date Signed: _____ By: _____

(Signature of NYS Workers' Compensation Board Employee)

Telephone Number: _____ Title: _____

Please Note: Only insurance carriers licensed to write NYS disability benefits insurance policies and NYS licensed insurance agents of those insurance carriers are authorized to issue Form DB-120.1. Insurance brokers are NOT authorized to issue this form.

Additional Instructions for Form DB-120.1

By signing this form, the insurance carrier identified in box "3" on this form is certifying that it is insuring the business referenced in box "1a" for disability benefits under the New York State Disability Benefits Law. The Insurance Carrier or its licensed agent will send this Certificate of Insurance to the entity listed as the certificate holder in box "2".

Will the carrier notify the certificate holder within 10 days of a policy being cancelled for non-payment of premium or within 30 days if cancelled for any other reason or if the insured is otherwise eliminated from the coverage indicated on this certificate prior to the end of the policy effective period? YES NO

This certificate is issued as a matter of information only and confers no rights upon the certificate holder. This certificate does not amend, extend or alter the coverage afforded by the policy listed, nor does it confer any rights or responsibilities beyond those contained in the referenced policy.

This certificate may be used as evidence of a Disability Benefits contract of insurance only while the underlying policy is in effect.

Please Note: Upon the cancellation of the disability benefits policy indicated on this form, if the business continues to be named on a permit, license or contract issued by a certificate holder, the business must provide that certificate holder with a new Certificate of NYS Disability Benefits Coverage or other authorized proof that the business is complying with the mandatory coverage requirements of the New York State Disability Benefits Law.

DISABILITY BENEFITS LAW

§220.Subd. 8

- (a) The head of a state or municipal department, board, commission or office authorized or required by law to issue any permit for or in connection with any work involving the employment of employees in employment as defined in this article, and 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 for all employees has been secured as provided by this article. Nothing herein, however, shall be construed as creating any liability on the part of such state or municipal department, board, commission or office to pay any disability benefits to any such employee if so employed.
- (b) The head of a state or municipal department, board, commission or office authorized or required by law to enter into any contract for or in connection with any work involving the employment of employees in employment as defined in this article and notwithstanding any general or special statute requiring or authorizing any such contract, shall not enter into any such contract unless proof duly subscribed by an insurance carrier is produced in a form satisfactory to the chair, that the payment of disability benefits for all employees has been secured as provided by this article.

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.

TransAmerican Associates Inc

[Name of broker or agent (typewritten)]

651 W Mt Pleasant Ave, Suite 255, Livingston, NJ 07039

[Address of broker or agent (typewritten)]

jrocco@taains.com

[Email address of broker or agent (typewritten)]

973-251-2646 / 973-251-2651

[Phone number/Fax number of broker or agent (typewritten)]

[Signature of authorized official, broker, or agent]

John D Rocco, President

[Name and title of authorized official, broker, or agent (typewritten)]

State of New Jersey)

County of Morris) ss.:

Sworn to before me this 18th day of December, 2017

Andrea Iverson

NOTARY PUBLIC FOR THE STATE OF New Jersey

ANDREA IVERSON
NOTARY PUBLIC
STATE OF NEW JERSEY
MY COMMISSION EXPIRES DEC. 28, 2020

Performance Bond #1 (Pages 92 to 95): Use if the total contract price is \$5 Million Or Less. Performance Bond #1 has been approved by the U.S. Small Business Administration (“SBA”) for participation in its Bond Guarantee Program.

PERFORMANCE BOND #1 (Page 2)

good any such default and shall protect the said City of New York against, and pay any and all amounts, damages, cost and judgments which may or shall be recovered against said City or its officers or agents or which the said City of New York may be called upon to pay any person or corporation by reason of any damages arising or growing out of the Principal's default of the Contract, then this obligation shall be null and void, otherwise to remain in full force and effect.

The Surety (Sureties), for value received, hereby stipulates and agrees, upon written notice from the City that the City has determined that the Principal is in default of the Contract, to (1) pay the City the cost to complete the contract as determined by the City in excess of the balance of the Contract held by the City, plus any damages or costs to which the City is entitled, up to the full amount of the above penal sum, (2) fully perform and complete the Work to be performed under the Contract, pursuant to the terms, conditions, and covenants thereof, or (3) tender a completion Contractor that is acceptable to the City. The Surety (Sureties) further agrees, at its option, either to notify the City that it elects to pay the city the cost of completion plus any applicable damages and costs under option (1) above, or to commence and diligently perform the Work specified in the Contract, including physical site work, within twenty-five (25) business days after written notice thereof from the City and, if the Surety elects to fully perform and complete the Work, then to complete all Work within the time set forth in the Contract or such other time as agreed to between the City and Surety in accordance with the Contract. If the Surety elects to tender payment pursuant to (1) above, then the Surety shall tender such amount within fifteen (15) business days notification from the City of the cost of completion. The Surety and the City reserve all rights and defenses each may have against the other; provided, however, that the Surety expressly agrees that its reservation of rights shall not provide a basis for non-performance of its obligation to pay the City the cost of completion, to commence and complete all Work as provided herein, or to tender a completion contractor.

The Surety (Sureties), for value received, for itself and its successors and assigns, hereby stipulates and agrees that the obligation of said Surety (Sureties) and its bond shall be in no way impaired or affected by any extension of time, modification, omission, addition, or change in or to the said Contract or the Work to be performed thereunder, or by any payment thereunder before the time required therein, or by any waiver of any provisions thereof, or any moneys due or to become due thereunder; and said Surety (Sureties) does hereby waive notice of any and all of such extensions, modifications, omissions, additions, changes, payments, and waivers, and hereby expressly stipulates and agrees that any and all things done and omitted to be done by and in relation to subcontractors shall have the same effect as to said Surety (Sureties) as though done or omitted to be done by or in relation to said Principal. Notwithstanding the above, if the City makes payments to the Principal before the time required by the contract that in the aggregate exceed \$100,000 or 10% of the Contract price, whichever is less, and that have not become earned prior to the Principal being found to be in default, then all payments made to the Principal before the time required by the Contract shall be added to the remaining contract value available to be paid for the completion of the Contract as if such sums had not been paid to the Principal, but shall not provide a basis for non-performance of its obligation to pay the City the cost of completion, to commence and to complete all Work as provided herein, or to tender a completion contractor.

Performance Bond #1 (Pages 92 to 95): Use if the total contract price is \$5 Million Or Less. Performance Bond #1 has been approved by the U.S. Small Business Administration (“SBA”) for participation in its Bond Guarantee Program.

PERFORMANCE BOND #1 (Page 3)

IN WITNESS WHEREOF, The Principal and the Surety (Sureties) have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereunto affixed and these presents to be signed by their proper officers, this

_____ day of _____, 20_____
(Seal)

Principal (L.S.)

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 92 to 95): Use if the total contract price is \$5 Million Or Less. Performance Bond #1 has been approved by the U.S. Small Business Administration ("SBA") for participation in its Bond Guarantee Program.

PERFORMANCE BOND #1 (Page 4)

ACKNOWLEDGMENT OF PRINCIPAL IF A CORPORATION

State of _____ County of _____ ss:

On this _____ day of _____, 20_____ before me personally came _____, to me known, who, being by me duly sworn did depose and say that he/she resides at _____

_____ ; that he/she is the _____ of the corporation described in and which executed the foregoing instrument; and that he/she signed his/her name to the foregoing instrument by order of the directors of said corporation as the duly authorized and binding act thereof.

Notary Public or Commissioner of Deeds.

ACKNOWLEDGMENT OF PRINCIPAL IF A PARTNERSHIP

State of _____ County of _____ ss:

On this _____ day of _____, 20_____ before me personally came _____, to me known, who, being by me duly sworn did 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 96 to 99): Use if the total contract price is more than \$5 Million.

PERFORMANCE BOND #2 (Page 1)

PERFORMANCE BOND #2

KNOW ALL PERSONS BY THESE PRESENTS:

That we, _____

hereinafter referred to as the "Principal,"

and, _____

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

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

WHEREAS, the Principal is about to enter, or has entered, into a Contract in writing with the City for

a copy of which Contract is annexed to and hereby made a part of this bond as though herein set forth in full;

NOW, THEREFORE, the conditions of this obligation are such that if the Principal, his or its representatives or assigns, shall well and faithfully perform the said Contract and all modifications, amendments, additions and alterations thereto that may hereafter be made, according to its terms and its true intent and meaning, including repair and or replacement of defective work and guarantees of maintenance for the periods stated in the Contract, and shall fully indemnify and save harmless the City from all cost and damage which it may suffer by reason of the Principal's default of the Contract, and shall fully reimburse and repay the City for all outlay and expense which the City may incur in making

Performance Bond #2 (Pages 96 to 99): Use if the total contract price is more than \$5 Million.

PERFORMANCE BOND #2 (Page 2)

good any such default and shall protect the said City of New York against, and pay any and all amounts, damages, cost and judgments which may or shall be recovered against said City or its officers or agents or which the said City of New York may be called upon to pay any person or corporation by reason of any damages arising or growing out of the Principal's default of the Contract, then this obligation shall be null and void, otherwise to remain in full force and effect.

The Surety (Sureties), for value received, hereby stipulates and agrees, upon written notice from the City that the City has determined that the Principal is in default of the Contract, to either (1) pay the full amount of the above penal sum in complete discharge and exoneration of this bond and of all the liabilities of the Surety relating to this bond, or (2) fully perform and complete the Work to be performed under the Contract, pursuant to the terms, conditions, and covenants thereof. The Surety (Sureties) further agrees, at its option, either to tender the penal sum or to commence and diligently perform the Work specified in the Contract, including physical site work, within twenty-five (25) business days after written notice thereof from the City and to complete all Work within the time set forth in the Contract or such other time as agreed to between the City and Surety in accordance with the Contract. The Surety and the City reserve all rights and defenses each may have against the other; provided, however, that the Surety expressly agrees that its reservation of rights shall not provide a basis for non-performance of its obligation to commence and to complete all Work as provided herein.

The Surety (Sureties), for value received, for itself and its successors and assigns, hereby stipulates and agrees that the obligation of said Surety (Sureties) and its bond shall be in no way impaired or affected by any extension of time, modification, omission, addition, or change in or to the said Contract or the Work to be performed thereunder, or by any payment thereunder before the time required therein, or by any waiver of any provisions thereof, or by any assignment, subletting or other transfer thereof or of any Work to be performed or any moneys due or to become due thereunder; and said Surety (Sureties) does hereby waive notice of any and all of such extensions, modifications, omissions, additions, changes, payments, waivers, assignments, subcontracts and transfers, and hereby expressly stipulates and agrees that any and all things done and omitted to be done by and in relation to assignees, subcontractors, and other transferees shall have the same effect as to said Surety (Sureties) as though done or omitted to be done by or in relation to said Principal.

Performance Bond #2 (Pages 96 to 99): Use if the total contract price is more than \$5 Million.

PERFORMANCE BOND #2 (Page 3)

IN WITNESS WHEREOF, The Principal and the Surety (Sureties) have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereunto affixed and these presents to be signed by their proper officers, this

_____ day of _____ 20 _____ .

(Seal) _____ (L.S.)

Principal

By: _____ .

(Seal)

Surety

By: _____ .

(Seal)

Surety

By: _____ .

(Seal)

Surety

By: _____ .

(Seal)

Surety

By: _____ .

(Seal)

Surety

By: _____ .

Bond Premium Rate _____ .

Bond Premium Cost _____ .

If the Contractor (Principal) is a partnership, the bond should be signed by each of the individuals who are partners.

If the Contractor (Principal) is a corporation, the bond should be signed in its correct corporate name by a duly authorized officer, agent, or attorney-in-fact.

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

Performance Bond #2 (Pages 96 to 99): Use if the total contract price is more than \$5 Million.

PERFORMANCE BOND #2 (Page 4)

ACKNOWLEDGMENT OF PRINCIPAL IF A CORPORATION

State of _____ County of _____ ss:

On this _____ day of _____, 20 _____ before me personally
came _____,
to me known, who, being by me duly sworn did depose and say that he resides
at _____

_____ ; that he/she is the _____
of the corporation described in and which executed the foregoing instrument; that he/she signed his/her name to the
foregoing instrument by order of the directors of said corporation as the duly authorized and binding act thereof.

Notary Public or Commissioner of Deeds.

ACKNOWLEDGMENT OF PRINCIPAL IF A PARTNERSHIP

State of _____ County of _____ ss:

On this _____ day of _____, 20 _____ before me personally
came _____,
to me known, who, being by me duly sworn did depose and say that he/she resides
at _____

_____ ; that he/she is _____ partner of
_____, a limited/general partnership existing under the laws of the State of
_____, the partnership described in and which executed the foregoing instrument;
and that he/she signed his/her name to the foregoing instrument as the duly authorized and binding act of
said partnership.

Notary Public or Commissioner of Deeds

ACKNOWLEDGMENT OF PRINCIPAL IF AN INDIVIDUAL

State of _____ County of _____ ss:

On this _____ day of _____, 20 _____ before me personally
came _____,
to me known, who, being by me duly sworn did depose and say that he/she resides
at _____

_____, and that he/she is the individual whose name is
subscribed to the within instrument and acknowledged to me that by his/her signature on the
instrument, said individual executed the instrument.

Notary Public or Commissioner of Deeds

Each executed bond should be accompanied by: (a) appropriate acknowledgments of the respective parties; (b) appropriate
duly certified copy of Power of Attorney or other certificate of authority where bond is executed by agent, officer or other
representative of Principal or Surety; (c) a duly certified extract from By-Laws or resolutions of Surety under which Power
of Attorney or other certificate of authority of its agent, officer or representative was issued, and (d) certified copy of latest
published financial statement of assets and liabilities of Surety.

* * * * *

Affix Acknowledgments and Justification of Sureties.

Payment Bond (Pages 100 to 103): Use for any contract for which a Payment Bond is required.

PAYMENT BOND (Page 1)

PAYMENT BOND

KNOW ALL PERSONS BY THESE PRESENTS, That we, _____

hereinafter referred to as the "Principal", and _____

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

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

WHEREAS, the Principal is about to enter, or has entered, into a Contract in writing with the City for

a copy of which Contract is annexed to and hereby made a part of this bond as though herein set forth in full;

NOW, THEREFORE, the conditions of this obligation are such that if the Principal, his or its representatives or assigns and other Subcontractors to whom Work under this Contract is sublet and his or their successors and assigns shall promptly pay or cause to be paid all lawful claims for

(a) Wages and compensation for labor performed and services rendered by all persons engaged in the prosecution of the Work under said Contract, and any amendment or extension thereof or addition thereto, whether such persons be agents servants or employees of the Principal or any such Subcontractor, including all persons so engaged who perform the work of laborers or mechanics at or in the vicinity of the site

Payment Bond (Pages 100 to 103): Use for any contract for which a Payment Bond is required.

PAYMENT BOND (Page 2)

of the Project regardless of any contractual relationship between the Principal or such Subcontractors, or his or their successors or assigns, on the one hand and such laborers or mechanics on the other, but not including office employees not regularly stationed at the site of the project; and

(b) Materials and supplies (whether incorporated in the permanent structure or not), as well as teams, fuels, oils, implements or machinery furnished, used or consumed by said Principal or any subcontractor at or in the vicinity of the site of the Project in the prosecution of the Work under said Contract and any amendment or extension thereof or addition thereto; then this obligation shall be void, otherwise to remain in full force and effect.

This bond is subject to the following additional conditions, limitations and agreements:

(a) The Principal and Surety (Sureties) agree that this bond shall be for the benefit of any materialmen or laborer having a just claim, as well as the City itself.

(b) All persons who have performed labor, rendered services or furnished materials and supplies, as aforesaid, shall have a direct right of action against the Principal and his, its or their successors and assigns, and the Surety (Sureties) herein, or against either or both or any of them and their successors and assigns. Such persons may sue in their own name, and may prosecute the suit to judgment and execution without the necessity of joining with any other persons as party plaintiff.

(c) The Principal and Surety (Sureties) agree that neither of them will hold the City liable for any judgment for costs of otherwise, obtained by either or both of them against a laborer or materialman in a suit brought by either a laborer or materialman under this bond for moneys allegedly due for performing work or furnishing material.

(d) The Surety (Sureties) or its successors and assigns shall not be liable for any compensation recoverable by an employee or laborer under the Workmen's Compensation Law.

(e) In no event shall the Surety (Sureties), or its successors or assigns, be liable for a greater sum than the penalty of this bond or be subject to any suit, action or proceeding hereon that is instituted by any person, firm, or corporation hereunder later than two years after the complete performance of said Contract and final settlement thereof.

The Principal, for himself and his successors and assigns, and the Surety (Sureties), for itself and its successors and assigns, do hereby expressly waive any objection that might be interposed as to the right of the City to require a bond containing the foregoing provisions, and they do hereby further expressly waive any defense which they or either of them might interpose to an action brought hereon by any person, firm or corporation, including subcontractors, materialmen and third persons, for work, labor, services, supplies or material performed rendered, or furnished as aforesaid upon the ground that there is no law authorizing the City to require the foregoing provisions to be place in this bond.

And the Surety (Sureties), for value received, for itself and its successors and assigns, hereby stipulates and agrees that the obligation of said Surety (Sureties), and its bonds shall be in no way impaired or affected by any extension of time, modification, omission, addition, or change in or of the said Contract or the work to be performed thereunder, or by any payment thereunder before the time required therein, or by any waiver of any provisions thereof, or by any assignment, subletting or other transfer thereof or of any part thereof, or of any Work to be performed, or any moneys due to become due thereunder and said Surety (Sureties) does hereby waive notice of any and all of such extensions, modifications, omissions, additions, changes, payments, waivers, assignments, subcontracts and transfers, and hereby expressly stipulates and agrees that any and all things done and omitted to be done by and in relation to assignees, Subcontractors, and other transferees shall have the same effect as to said Surety (Sureties) as though done or omitted to be done or in relation to said Principal.

Payment Bond (Pages 100 to 103): Use for any contract for which a Payment Bond is required.

PAYMENT BOND (Page 3)

IN WITNESS WHEREOF, the Principal and the Surety (Sureties) have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereunto affixed and these presents to be signed by their proper officers, this _____ day of _____, _____.

(Seal) _____ (L.S.)
Principal

By: _____

(Seal) _____
Surety

By: _____

(Seal) _____
Surety

By: _____

(Seal) _____
Surety

By: _____

(Seal) _____
Surety

By: _____

If the Contractor (Principal) is a partnership, the bond should be signed by each of the individuals who are partners.

If the Contractor (Principal) is a corporation, the bond should be signed in its correct corporate name by a duly authorized officer, agent, or attorney-in-fact.

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

Payment Bond (Pages 100 to 103): Use for any contract for which a Payment Bond is required.

PAYMENT BOND (Page 4)

ACKNOWLEDGMENT OF PRINCIPAL, IF A CORPORATION

State of _____ County of _____ ss:

On this ____ day of _____, _____, before me personally came _____ to me known, who, being by me duly sworn did depose and say that he resides at _____ that he is the _____ of the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that one of the seals affixed to said instrument is such seal; that it was so affixed by order of the directors of said corporation, and that he signed his name thereto by like order.

Notary Public or Commissioner of Deeds

ACKNOWLEDGMENT OF PRINCIPAL, IF A PARTNERSHIP

State of _____ County of _____ ss:

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

Notary Public or Commissioner of Deeds

ACKNOWLEDGMENT OF PRINCIPAL, IF AN INDIVIDUAL

State of _____ County of _____ ss:

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

Notary Public or Commissioner of Deeds

Each executed bond should be accompanied by: (a) appropriate acknowledgments of the respective parties; (b) appropriate duly certified copy of Power of Attorney or other certificate of authority where bond is executed by agent, officer or other representative of Principal or Surety; (c) a duly certified extract from By-Laws or resolutions of Surety under which Power of Attorney or other certificate of authority of its agent, officer or representative was issued, and (d) certified copy of latest published financial statement of assets and liabilities of Surety.

Affix Acknowledgments and Justification of Sureties.

(NO TEXT ON THIS PAGE)

SCHEDULE OF WORKMEN, MECHANICS AND LABORERS

The following is a list of classifications for workmen, mechanics and laborers which are anticipated to be employed in the performance of work under this contract, followed by a schedule of the prevailing wage rates and supplemental benefits for all classifications as established by the Comptroller of the City of New York.

Request for interpretation or correction under Subsection A of Section No. 3 in the Information for Bidders includes all requests for clarification of the classification of trades to be employed in the performance of the work under this contract.

In the event that a trade not listed in the classification of trades required to be used at the time of the award of the contract is in fact employed during the performance of this contract, the Contractor shall be required to obtain from the agency the prevailing wage rates and supplementary benefits for the trades used and to complete the performance of this contract at the price at which the contract was awarded.

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

<u>CODE</u>	<u>CLASSIFICATION</u>
16 23 061	Operating Engineer-Road & Heavy Construction
16 23 062	Operating Engineer-Paving
16 23 063	Operating Engineer-Concrete
16 23 071	Teamster-Heavy Equipment Trailer Driver
16 23 072	Teamster-Dump Truck Driver
16 23 073	Teamster-Flat Bed Trailer Driver (3-Axle)
16 23 074	Teamster-Redi-Mix (Sand and Gravel)
16 29 011	Drill Runners
17 11 001	Plumbers
17 21 001	Painter (Brush & Roller)
17 31 001	Electrician
17 41 001	Bricklayer
17 41 002	Mason Tender
17 41 004	Cement Mason
17 42 002	Metallic Lather
17 51 001	Carpenter
17 51 002	Dock Builder
17 71 001	Cement & Concrete Worker
17 91 001	Structural Iron Worker
17 95 001	Barman
17 96 021	Derrickmen & Riggers
17 99 001	Ornamental Iron Worker
17 99 002	Sandblaster
17 99 005	Pointers (Waterproofer)
17 99 011	Welders

Each classification may include trainees depending upon project staffing schedules and as required by the terms of this contract.

**OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE**

LABOR LAW §220 PREVAILING WAGE SCHEDULE

Workers, Laborers and Mechanics employed on a public work project must receive not less than the prevailing rate of wage and benefits for the classification of work performed by each upon such public work. Pursuant to Labor Law §220 the Comptroller of the City of New York has promulgated this schedule solely for Workers, Laborers and Mechanics engaged by private contractors on New York City public work contracts.

This schedule is a compilation of separate determinations of the prevailing rate of wage and supplements made by the Comptroller for each trade classification listed herein pursuant to New York State Labor Law section 220 (5). The source of the wage and supplement rates, whether a collective bargaining agreement, survey data or other, is listed at the end of each classification.

Agency Chief Contracting Officers should contact the Bureau of Labor Law's Classification Unit with any questions concerning trade classifications, prevailing rates or prevailing practices with respect to procurement on New York City public works contracts. Contractors are advised to review the Comptroller's Prevailing Wage Schedule before bidding on public works contracts. Contractors with questions concerning trade classifications, prevailing rates or prevailing practices with respect to public works contracts in the procurement stage must contact the contracting agency responsible for the procurement.

Any error as to compensation under the prevailing wage law or other information as to trade classification, made by the contracting agency in the contract documents or in any other communication, will not preclude a finding against the contractor of prevailing wage violation.

Any questions concerning trade classifications, prevailing rates or prevailing practices on New York City public works contracts that have already been awarded may be directed to the Bureau of Labor Law's Classification Unit by calling (212) 669-7974. All callers must have the agency name and contract registration number available when calling with questions on public works contracts. Please direct all other compliance issues to: Bureau of Labor Law, Attn: Wasy Kinach, P.E., Office of the Comptroller, 1 Centre Street, Room 1122, New York, N.Y. 10007; Fax (212) 669-4002.

The appropriate schedule of prevailing wages and benefits must be posted at all public work sites pursuant to Labor Law §220 (3-a) (a).

This schedule is applicable to work performed during the effective period, unless otherwise noted. Changes to this schedule are published on our web site www.comptroller.nyc.gov. Contractors must pay the wages and supplements in effect when the worker, laborer, mechanic performs the work. Preliminary schedules for future one-year periods appear in the City Record on or about June 1 each succeeding year. Final schedules appear on or about July 1 in the City Record and on our web site www.comptroller.nyc.gov.

The Comptroller's Office has attempted to include all overtime, shift and night differential, Holiday, Saturday, Sunday or other premium time work. However, this schedule does not set forth every prevailing practice with respect to such rates with which employers must comply. All such practices are nevertheless part of the employer's prevailing wage obligation and contained in the collective bargaining agreements of the prevailing wage unions. These collective bargaining agreements are available for inspection by appointment. Requests for appointments may be made by calling (212) 669-443, Monday through Friday between the hours of 9 a.m. and 5 p.m.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Prevailing rates and ratios for apprentices are attached to this schedule in the Appendix. Pursuant to Labor Law §220 (3-e), only apprentices who are individually registered in a bona fide program to which the employer contractor is a participant, registered with the New York State Department of Labor, may be employed on a public work project. Workers who are not journey persons or not registered apprentices pursuant to Labor Law §220 (3-e) may not be substituted for apprentices and must be paid as journey persons.

Public Work construction, reconstruction, demolition, excavation, rehabilitation, repair, renovation, alteration, or improvement contracts awarded pursuant to a Project Labor Agreement ("PLA") in accordance with Labor Law section 222 may have different labor standards for shift, premium and overtime work. Please refer to the PLA's pre-negotiated labor agreements for wage and benefit rates applicable to work performed outside of the regular workday. More information is available at the Mayor's Office of Contract Services (MOCS) web page at <http://www.nyc.gov/html/mocs/html/vendors/pla.shtml>.

All the provisions of Labor Law section 220 remain applicable to PLA work including, but not limited to, the enforcement of prevailing wage requirements by the Comptroller; however, we will enforce shift, premium, overtime and other non-standard rates as they appear in a project's pre-negotiated labor agreement.

In order to meet their obligation to provide prevailing supplemental benefits to each covered employee, employers must either:

- 1) Provide bona-fide benefits which cost the employer no less than the prevailing supplemental benefits rate; or
- 2) Supplement the employee's hourly wage by an amount no less than the prevailing supplemental benefits rate; or
- 3) Provide a combination of bona-fide benefits and wage supplements which cost the employer no less than the prevailing supplemental benefits rate in total.

Particular attention should be given to the supplemental benefits requirement. Although in most instances the payment or provision for supplemental benefits is for each hour worked, some classifications require the payment or provision of supplemental benefits for each hour paid. Consequently, some prevailing practices require benefits to be purchased at the overtime, shift differential, Holiday, Saturday, Sunday or other premium time rate.

Benefits are paid for **EACH HOUR WORKED** unless otherwise noted.

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

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

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§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: 7/1/2016 - 6/30/2017

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)

BLASTER

Blaster

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$44.93

Supplemental Benefit Rate per Hour: \$46.24

Blaster (Hydraulic)

Effective Period: 7/1/2016 - 6/30/2017

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Wage Rate per Hour: **\$45.78**
Supplemental Benefit Rate per Hour: **\$46.24**

Blaster - Trac Drill Hydraulic

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate per Hour: **\$40.12**
Supplemental Benefit Rate per Hour: **\$46.24**

Blaster - Wagon: Air Trac: Quarry Bar: Drillrunners

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate per Hour: **\$39.31**
Supplemental Benefit Rate per Hour: **\$46.24**

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: 7/1/2016 - 6/30/2017
Wage Rate per Hour: **\$38.23**
Supplemental Benefit Rate per Hour: **\$46.24**

Blaster - Powder Carriers

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate per Hour: **\$34.20**
Supplemental Benefit Rate per Hour: **\$46.24**

Blaster - Hydraulic Trac Drill Chuck Tender

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate per Hour: **\$32.88**
Supplemental Benefit Rate per Hour: **\$46.24**

Blaster - Chuck Tender & Nipper

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate per Hour: **\$32.10**
Supplemental Benefit Rate per Hour: **\$46.24**

Blaster - Magazine Keepers: (Watch Person)

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate per Hour: **\$17.80**
Supplemental Benefit Rate per Hour: **\$46.24**

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)

BOILERMAKER

Boilermaker

Effective Period: 7/1/2016 - 12/31/2016

Wage Rate per Hour: \$53.36

Supplemental Benefit Rate per Hour: \$42.33

Supplemental Note: For time and one half overtime - \$62.88 For double overtime - \$83.42

Effective Period: 1/1/2017 - 6/30/2017

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

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Overtime Description

For Repair and Maintenance work:

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

For New Construction work:

Double time the regular rate after an 8 hour day.

Double time the regular time rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Memorial Day

Independence Day

Columbus Day

Election Day

Veteran's Day

Thanksgiving Day

Christmas Day

Quadruple time the regular rate for work on the following holiday(s).

Labor Day

Paid Holidays

Good Friday

Day after Thanksgiving

Day before Christmas

Day before New Year's Day

Shift Rates

When shifts are required, the first shift shall work eight (8) hours at the regular straight-time hourly rate. The second shift shall work seven and one-half (7 ½) hours and receive eight hours at the regular straight time hourly rate plus twenty-five cents (\$0.25) per hour. The third shift shall work seven (7) hours and receive eight hours at the regular straight time hourly rate plus fifty cents (\$0.50) per hour. A thirty (30) minute lunch period shall not be considered as time worked. Work in excess of the above shall be paid overtime at the appropriate new construction work or repair work overtime wage and supplemental benefit hourly rate.

(Local #5)

BRICKLAYER

Bricklayer

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$52.59

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Supplemental Benefit Rate per Hour: \$30.00

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)

CARPENTER - BUILDING COMMERCIAL

Building Commercial

Effective Period: 7/1/2016 - 6/30/2017

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)

CARPENTER - HEAVY CONSTRUCTION WORK
(Construction of Engineering Structures and Building Foundations)

Heavy Construction Work

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$51.63

Supplemental Benefit Rate per Hour: \$48.65

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Presidential Election Day

Thanksgiving Day

Christmas Day

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Paid Holidays

None

Shift Rates

Off shift work commencing between 5:00 P.M. and 11:00 P.M. shall work eight and one half hours allowing for one half hour for lunch. The wage rate shall be 113% of the straight time hourly wage rate.

(Carpenters District Council)

CARPENTER - SIDEWALK SHED, SCAFFOLD AND HOIST

Carpenter - Hod Hoist

(Assisted by Mason Tender)

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$50.50

Supplemental Benefit Rate per Hour: \$44.80

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Presidential Election Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

Paid Holidays

None

Shift Rates

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
\$220 PREVAILING WAGE SCHEDULE

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)

CEMENT & CONCRETE WORKER

Cement & Concrete Worker

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$42.48**

Supplemental Benefit Rate per Hour: **\$23.00**

Supplemental Note: **\$25.75 on Saturdays; \$28.50 on Sundays & Holidays**

Cement & Concrete Worker - (Hired after 2/6/2016)

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$32.00**

Supplemental Benefit Rate per Hour: **\$16.00**

Supplemental Note: **\$17.25 on Saturdays; \$18.50 on Sundays & Holidays**

Overtime Description

Time and one half the regular rate after 7 hour day (time and one half the regular rate after an 8 hour day when working with Dockbuilders on pile cap forms and for work below street level to the top of the foundation wall, not to exceed 2 feet or 3 feet above the sidewalk-brick shelf, when working on the foundation and structure.)

Overtime

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Good Friday

Memorial Day

Independence Day

Labor Day

Columbus Day

Presidential Election Day

Thanksgiving Day

Christmas Day

Paid Holidays

1/2 day before Christmas Day

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

1/2 day before New Year's Day

Shift Rates

On shift work extending over a twenty-four hour period, all shifts are paid at straight time.

(Cement Concrete Workers District Council)

CEMENT MASON

Cement Mason

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$40.72

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)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

CORE DRILLER

Core Driller

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$37.82**

Supplemental Benefit Rate per Hour: **\$24.00**

Core Driller Helper

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$30.17**

Supplemental Benefit Rate per Hour: **\$24.00**

Core Driller Helper(Third year in the industry)

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$27.15**

Supplemental Benefit Rate per Hour: **\$24.00**

Core Driller Helper (Second year in the industry)

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$24.14**

Supplemental Benefit Rate per Hour: **\$24.00**

Core Driller Helper (First year in the industry)

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$21.12**

Supplemental Benefit Rate per Hour: **\$24.00**

Overtime Description

Time and one half the regular rate for work on a holiday plus Holiday pay when worked.

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Time and one half the regular rate for work on the following holiday(s).

Paid Holidays

New Year's Day

Memorial Day

Independence Day

Labor Day

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

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)

DERRICKPERSON AND RIGGER

Derrick Person & Rigger

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$45.48

Supplemental Benefit Rate per Hour: \$50.00

Supplemental Note: The above supplemental rate applies for work performed in Manhattan, Bronx, Brooklyn and Queens. \$51.42 - For work performed in Staten Island.

Overtime Description

The first two hours of overtime on weekdays and the first seven hours of work on Saturdays are paid at time and one half for wages and supplemental benefits. All additional overtimes is paid at double time for wages and supplemental benefits. Deduct \$1.42 from the Staten Island hourly benefits rate before computing overtime.

Overtime

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

Washington's Birthday

Good Friday

Memorial Day

Independence Day

Labor Day

Thanksgiving Day

Christmas Day

Paid Holidays

1/2 day on Christmas Eve if work is performed in the A.M.

(Local #197)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

DIVER

Diver (Marine)

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$65.38**

Supplemental Benefit Rate per Hour: **\$48.65**

Diver Tender (Marine)

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$46.44**

Supplemental Benefit Rate per Hour: **\$48.65**

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Presidential Election Day

Thanksgiving Day

Christmas Day

Paid Holidays

None

Shift Rates

When three shifts are utilized each shift shall work seven and one half-hours (7 1/2 hours) and paid for 8 hours, allowing for one half hour for lunch.

(Carpenters District Council)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

DOCKBUILDER - PILE DRIVER

Dockbuilder - Pile Driver

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$51.63**

Supplemental Benefit Rate per Hour: **\$48.65**

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Presidential Election Day

Thanksgiving Day

Christmas Day

Paid Holidays

None

Shift Rates

Off shift work commencing between 5:00 P.M. and 11:00 P.M. shall work eight and one half hours allowing for one half hour for lunch. The wage rate shall be 113% of the straight time hourly wage rate.

(Carpenters District Council)

DRIVER: TRUCK (TEAMSTER)

Driver - Dump Truck

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$40.15**

Supplemental Benefit Rate per Hour: **\$43.39**

Supplemental Note: Over 40 hours worked: at time and one half rate - \$18.44; at double time rate - \$24.58

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
\$220 PREVAILING WAGE SCHEDULE

Driver - Tractor Trailer

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$41.46

Supplemental Benefit Rate per Hour: \$43.65

Supplemental Note: Over 40 hours worked: at time and one half rate - \$16.65; at double time rate - \$22.20

Driver - Euclid & Turnapull Operator

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$42.03

Supplemental Benefit Rate per Hour: \$43.65

Supplemental Note: Over 40 hours worked: at time and one half rate - \$16.65; at double time rate - \$22.20

Overtime Description

For Paid Holidays: Holiday pay for all holidays shall be prorated based two hours per day for each day worked in the holiday week, not to exceed 8 hours of holiday pay. For Thanksgiving week, the prorated share shall be 5 1/3 hours of holiday pay for each day worked in Thanksgiving week.

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day
President's Day
Memorial Day
Independence Day
Labor Day
Columbus Day
Veteran's Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

Paid Holidays

New Year's Day
President's Day
Memorial Day
Independence Day
Labor Day
Columbus Day
Veteran's Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

Shift Rates

Off single shift work commencing between 6:00 P.M. and 5:00 A.M. shall work eight and one half hours allowing for one half hour for lunch and receive 9 hours pay for 8 hours of work.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Driver Redi-Mix (Sand & Gravel)

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$36.30

Supplemental Benefit Rate per Hour: \$40.02

Supplemental Note: Over 40 hours worked: time and one half rate \$13.90, double time rate \$18.53

Overtime Description

For Paid Holidays: Employees working two (2) days in the calendar week in which the holiday falls are to paid for these holidays, provided they shape each remaining workday during that calendar week.

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

President's Day

Columbus Day

Veteran's Day

Triple time the regular rate for work on the following holiday(s).

New Year's Day

Memorial Day

Independence Day

Labor Day

Thanksgiving Day

Christmas Day

Paid Holidays

New Year's Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Election Day

Thanksgiving Day

Christmas Day

(Local #282)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

ELECTRICIAN

(Including all low voltage cabling carrying data; video; and voice in combination with data and or video.)

Electrician "A" (Regular Day)

Effective Period: 7/1/2016 - 5/10/2017
Wage Rate per Hour: **\$54.00**
Supplemental Benefit Rate per Hour: **\$51.86**

Effective Period: 5/11/2017 - 6/30/2017
Wage Rate per Hour: **\$56.00**
Supplemental Benefit Rate per Hour: **\$54.35**

Electrician "A" (Regular Day Overtime)

Effective Period: 7/1/2016 - 5/10/2017
Wage Rate per Hour: **\$81.00**
Supplemental Benefit Rate per Hour: **\$55.24**

Effective Period: 5/11/2017 - 6/30/2017
Wage Rate per Hour: **\$84.00**
Supplemental Benefit Rate per Hour: **\$57.86**

Electrician "A" (Day Shift)

Effective Period: 7/1/2016 - 5/10/2017
Wage Rate per Hour: **\$54.00**
Supplemental Benefit Rate per Hour: **\$51.86**

Effective Period: 5/11/2017 - 6/30/2017
Wage Rate per Hour: **\$56.00**
Supplemental Benefit Rate per Hour: **\$54.35**

Electrician "A" (Day Shift Overtime After 8 hours)

Effective Period: 7/1/2016 - 5/10/2017
Wage Rate per Hour: **\$81.00**
Supplemental Benefit Rate per Hour: **\$55.24**

Effective Period: 5/11/2017 - 6/30/2017
Wage Rate per Hour: **\$84.00**
Supplemental Benefit Rate per Hour: **\$57.86**

Electrician "A" (Swing Shift)

Effective Period: 7/1/2016 - 5/10/2017

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
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Wage Rate per Hour: \$63.36
Supplemental Benefit Rate per Hour: \$59.01

Effective Period: 5/11/2017 - 6/30/2017
Wage Rate per Hour: \$65.71
Supplemental Benefit Rate per Hour: \$61.94

Electrician "A" (Swing Shift Overtime After 7.5 hours)

Effective Period: 7/1/2016 - 5/10/2017
Wage Rate per Hour: \$95.04
Supplemental Benefit Rate per Hour: \$62.98

Effective Period: 5/11/2017 - 6/30/2017
Wage Rate per Hour: \$98.57
Supplemental Benefit Rate per Hour: \$66.05

Electrician "A" (Graveyard Shift)

Effective Period: 7/1/2016 - 5/10/2017
Wage Rate per Hour: \$70.97
Supplemental Benefit Rate per Hour: \$65.05

Effective Period: 5/11/2017 - 6/30/2017
Wage Rate per Hour: \$73.60
Supplemental Benefit Rate per Hour: \$68.33

Electrician "A" (Graveyard Shift Overtime After 7 hours)

Effective Period: 7/1/2016 - 5/10/2017
Wage Rate per Hour: \$106.46
Supplemental Benefit Rate per Hour: \$69.50

Effective Period: 5/11/2017 - 6/30/2017
Wage Rate per Hour: \$110.40
Supplemental Benefit Rate per Hour: \$72.95

Overtime

Time and one half the regular rate after a 7 hour day.
Time and one half the regular rate for Saturday.
Time and one 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

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Columbus Day
Veteran's Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

Paid Holidays

None

Shift Rates

When so elected by the Employer, one or more shifts of at least five days duration may be scheduled as follows:
Day Shift: 8:00 am to 4:30 pm, Swing Shift 4:30 pm to 12:30 am, Graveyard Shift: 12:30 am to 8:00 am.

For multiple shifts of temporary light and/or power, the temporary light and/or power employee shall be paid for 8 hours at the straight time rate. For three or less workers performing 8 hours temporary light and/or power the supplemental benefit rate is \$25.14 and effective 5/11/17 \$25.67.

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: 7/1/2016 - 5/10/2017

Wage Rate per Hour: **\$28.00**

Supplemental Benefit Rate per Hour: **\$21.85**

First and Second Year "M" Wage Rate Per Hour: **\$23.50**

First and Second Year "M" Supplemental Rate: **\$19.54**

Effective Period: 5/11/2017 - 6/30/2017

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**

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: 7/1/2016 - 5/10/2017

Wage Rate per Hour: **\$42.00**

Supplemental Benefit Rate per Hour: **\$23.60**

First and Second Year "M" Wage Rate Per Hour: **\$35.25**

First and Second Year "M" Supplemental Rate: **\$21.01**

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Effective Period: 5/11/2017 - 6/30/2017

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

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Time and one half the regular rate for Sunday.

Overtime Holidays

Time and one half the regular rate for work on the following holiday(s).

New Year's Day

Martin Luther King Jr. Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

Paid Holidays

None

(Local #3)

ELECTRICIAN - ALARM TECHNICIAN

(Scope of Work - Inspect, test, repair, and replace defective, malfunctioning, or broken devices, components and controls of Fire, Burglar and Security Systems)

Alarm Technician

Effective Period: 7/1/2016 - 3/9/2017

Wage Rate per Hour: \$32.00

Supplemental Benefit Rate per Hour: \$15.47

Supplemental Note: \$13.97 only after 8 hours worked in a day

Effective Period: 3/10/2017 - 6/30/2017

Wage Rate per Hour: \$32.40

Supplemental Benefit Rate per Hour: \$16.10

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

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
- Martin Luther King Jr. Day
- President's Day
- Memorial Day
- Independence Day
- Labor Day
- Columbus Day
- Veteran's Day
- Thanksgiving Day
- Day after Thanksgiving
- Christmas Day

Shift Rates

Night Differential is based upon a ten percent (10%) differential between the hours of 4:00 P.M. and 12:30 A.M. and a fifteen percent (15%) differential for the hours 12:00 A.M. to 8:00 A.M.

Vacation

- At least 1 year of employment.....ten (10) days
- 5 years or more of employment.....fifteen (15) days
- 10 years of employment.....twenty (20) days
- Plus one Personal Day per year

Sick Days:

One day per Year. Up to 4 vacation days may be used as sick days.

(Local #3)

ELECTRICIAN-STREET LIGHTING WORKER

Electrician - Electro Pole Electrician

Effective Period: 7/1/2016 - 5/17/2017

Wage Rate per Hour: \$54.00

Supplemental Benefit Rate per Hour: \$53.69

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Effective Period: 5/18/2017 - 6/30/2017

Wage Rate per Hour: **\$56.00**

Supplemental Benefit Rate per Hour: **\$56.26**

Electrician - Electro Pole Foundation Installer

Effective Period: 7/1/2016 - 5/17/2017

Wage Rate per Hour: **\$40.93**

Supplemental Benefit Rate per Hour: **\$40.12**

Effective Period: 5/18/2017 - 6/30/2017

Wage Rate per Hour: **\$41.54**

Supplemental Benefit Rate per Hour: **\$41.02**

Electrician - Electro Pole Maintainer

Effective Period: 7/1/2016 - 5/17/2017

Wage Rate per Hour: **\$35.05**

Supplemental Benefit Rate per Hour: **\$36.11**

Effective Period: 5/18/2017 - 6/30/2017

Wage Rate per Hour: **\$35.58**

Supplemental Benefit Rate per Hour: **\$36.89**

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

one

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§220 PREVAILING WAGE SCHEDULE

(Local #3)

ELEVATOR CONSTRUCTOR

Elevator Constructor

Effective Period: 7/1/2016 - 3/16/2017

Wage Rate per Hour: **\$60.96**

Supplemental Benefit Rate per Hour: **\$32.65**

Effective Period: 3/17/2017 - 6/30/2017

Wage Rate per Hour: **\$62.64**

Supplemental Benefit Rate per Hour: **\$34.25**

Overtime Description

For New Construction: work performed after 7 or 8 hour day, Saturday, Sunday or between 4:30pm and 7:00am shall be paid at double time rate.

Existing buildings: work performed after an 8 hour day, Saturday, Sunday or between 5:30pm and 7:00 am shall be paid time and one half.

Overtime

Double time the regular rate for work on the following holiday(s).

Paid Holidays

New Year's Day

President's Day

Good Friday

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

Vacation

Employer contributes 8% of regular basic hourly rate as vacation pay for employees with more than 15 years of service, and 6% for employees with 5 to 15 years of service, and 4% for employees with less than 5 years of service.

(Local #1)

ELEVATOR REPAIR & MAINTENANCE

Elevator Service/Modernization Mechanic

Effective Period: 7/1/2016 - 3/16/2017

Wage Rate per Hour: **\$47.91**

Supplemental Benefit Rate per Hour: **\$32.51**

Effective Period: 3/17/2017 - 6/30/2017

Wage Rate per Hour: **\$49.14**

Supplemental Benefit Rate per Hour: **\$34.11**

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)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

ENGINEER

Engineer - Heavy Construction Operating Engineer I

Cherrypickers 20 tons and over and Loaders (rubber tired and/or tractor type with a manufacturer's minimum rated capacity of six cubic yards and over).

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$65.94**

Supplemental Benefit Rate per Hour: **\$35.41**

Supplemental Note: \$63.67 on overtime

Shift Wage Rate: **\$105.50**

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-A-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: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$63.98**

Supplemental Benefit Rate per Hour: **\$35.41**

Supplemental Note: \$63.67 on overtime

Shift Wage Rate: **\$102.37**

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: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$60.69**

Supplemental Benefit Rate per Hour: **\$35.41**

Supplemental Note: \$63.67 on overtime

Shift Wage Rate: **\$97.10**

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

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§220 PREVAILING WAGE SCHEDULE

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: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$63.68**

Supplemental Benefit Rate per Hour: **\$35.41**

Supplemental Note: \$63.67 on overtime

Shift Wage Rate: **\$101.89**

Engineer - Heavy Construction Maintenance Engineer II

On Base Mounted Tower Cranes

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$83.66**

Supplemental Benefit Rate per Hour: **\$35.41**

Supplemental Note: \$63.67 on overtime

Shift Wage Rate: **\$133.86**

Engineer - Heavy Construction Maintenance Engineer III

On Generators, Light Towers

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$42.01**

Supplemental Benefit Rate per Hour: **\$35.41**

Supplemental Note: \$63.67 on overtime

Shift Wage Rate: **\$67.22**

Engineer - Heavy Construction Maintenance Engineer IV

On Pumps and Mixers including mud sucking

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$43.11**

Supplemental Benefit Rate per Hour: **\$35.41**

Supplemental Note: \$63.67 on overtime

Shift Wage Rate: **\$68.98**

Engineer - Heavy Construction Oilers I

Gradalls, Cold Planer Grader, Concrete Pumps, Driving Truck Cranes, Driving and Operating Fuel and Grease Trucks.

Effective Period: 7/1/2016 - 6/30/2017

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Wage Rate per Hour: **\$57.42**
Supplemental Benefit Rate per Hour: **\$35.41**
Supplemental Note: **\$63.67** on overtime
Shift Wage Rate: **\$91.87**

Engineer - Heavy Construction Oilers II

All gasoline, electric, diesel or air operated Shovels, Draglines, Backhoes, Keystones, Pavers, Gunite Machines, Battery of Compressors, Crawler Cranes, two-person Trenching Machines.

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate per Hour: **\$39.70**
Supplemental Benefit Rate per Hour: **\$35.41**
Supplemental Note: **\$63.67** on overtime
Shift Wage Rate: **\$63.52**

Engineer - Steel Erection Maintenance Engineers

Derrick, Travelers, Tower, Crawler Tower and Climbing Cranes

Effective Period: 7/1/2016 - 6/30/2017
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: 7/1/2016 - 6/30/2017
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: 7/1/2016 - 6/30/2017
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.

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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
Day after Thanksgiving
Christmas Day

Employees must work at least one day in the payroll week in which the holiday occurs to receive the paid holiday

Engineer - Building Work Maintenance Engineers I

Installing, repairing, maintaining, dismantling (of all equipment including: Steel Cutting and Bending Machines, Mechanical Heaters, Mine Hoists, Climbing Cranes, Tower Cranes, Linden Peine, Lorain, Liebherr, Mannes, or machines of a similar nature, Well Point Systems, Deep Well Pumps, Concrete Mixers with loading Device, Concrete Plants, Motor Generators when used for temporary power and lights), skid steer machines of a similar nature including bobcat.

Effective Period: 7/1/2016 - 6/30/2017

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: 7/1/2016 - 6/30/2017

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.

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Effective Period: 7/1/2016 - 6/30/2017

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, Guniting Machines, Compressors (three or more in Battery).

Effective Period: 7/1/2016 - 6/30/2017

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)

ENGINEER - CITY SURVEYOR AND CONSULTANT

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Party Chief

Effective Period: 7/1/2016 - 6/30/2017

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: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$31.47

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).

Rodperson

Effective Period: 7/1/2016 - 6/30/2017

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)

ENGINEER - FIELD (BUILDING CONSTRUCTION)
(Construction of Building Projects, Concrete Superstructures, etc.)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Field Engineer - BC Party Chief

Effective Period: 7/1/2016 - 6/30/2017

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: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$46.69

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 Rodperson

Effective Period: 7/1/2016 - 6/30/2017

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)

ENGINEER - FIELD (HEAVY CONSTRUCTION)

(Construction of Roads, Tunnels, Bridges, Sewers, Building Foundations, Engineering Structures etc.)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Field Engineer - HC Party Chief

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$68.09

Supplemental Benefit Rate per Hour: \$33.54

Supplemental Note: Overtime benefit rate - \$46.86 per hour (time & one half), \$60.18 per hour (double time).

Field Engineer - HC Instrument Person

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$49.98

Supplemental Benefit Rate per Hour: \$33.54

Supplemental Note: Overtime benefit rate - \$46.86 per hour (time & one half), \$60.18 per hour (double time).

Field Engineer - HC Rodperson

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$41.93

Supplemental Benefit Rate per Hour: \$33.54

Supplemental Note: Overtime benefit rate - \$46.86 per hour (time & one half), \$60.18 per hour (double time).

Overtime Description

Time and one half the regular rate after an 8 hour day, Time and one half the regular rate for Saturday for the first eight hours worked, Double time the regular time rate for Saturday for work performed in excess of eight hours, Double time the regular rate for Sunday and Double time the regular rate for work on a holiday.

Paid Holidays

New Year's Day

Lincoln's Birthday

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Christmas Day

Employees must work at least one day in the payroll week in which the holiday occurs to receive the paid holiday

(Operating Engineer Local #15-D)

ENGINEER - FIELD (STEEL ERECTION)

Field Engineer - Steel Erection Party Chief

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2016 - 6/30/2017

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: 7/1/2016 - 6/30/2017

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).

Field Engineer - Steel Erection Rodperson

Effective Period: 7/1/2016 - 6/30/2017

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)

ENGINEER - OPERATING

Operating Engineer - Road & Heavy Construction I

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Back Filling Machines, Cranes, Mucking Machines and Dual Drum Paver.

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$73.90

Supplemental Benefit Rate per Hour: \$31.10

Supplemental Note: \$56.50 overtime hours

Shift Wage Rate: \$118.24

Operating Engineer - Road & Heavy Construction II

Backhoes, Power Shovels, Hydraulic Clam Shells, Steel Erection, Moles and machines of a similar nature.

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$76.51

Supplemental Benefit Rate per Hour: \$31.10

Supplemental Note: \$56.50 overtime hours

Shift Wage Rate: \$122.42

Operating Engineer - Road & Heavy Construction III

Mine Hoists, Cranes, etc. (Used as Mine Hoists)

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$78.96

Supplemental Benefit Rate per Hour: \$31.10

Supplemental Note: \$56.50 overtime hours

Shift Wage Rate: \$126.34

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: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$77.07

Supplemental Benefit Rate per Hour: \$31.10

Supplemental Note: \$56.50 overtime hours

Shift Wage Rate: \$123.31

Operating Engineer - Road & Heavy Construction V

Pile Drivers & Rigs (employing Dock Builder foreperson): Derrick Boats, Tunnel Shovels.

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$75.55

Supplemental Benefit Rate per Hour: \$31.10

Supplemental Note: \$56.50 overtime hours

Shift Wage Rate: \$120.88

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Operating Engineer - Road & Heavy Construction VI

Mixers (Concrete with loading attachment), Concrete Pavers, Cableways, Land Derricks, Power Houses (Low Air Pressure Units).

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$71.78

Supplemental Benefit Rate per Hour: \$31.10

Supplemental Note: \$56.50 overtime hours

Shift Wage Rate: \$114.85

Operating Engineer - Road & Heavy Construction VII

Barrier Movers , Barrier Transport and Machines of a Similar Nature.

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$57.96

Supplemental Benefit Rate per Hour: \$31.10

Supplemental Note: \$56.50 overtime hours

Shift Wage Rate: \$92.74

Operating Engineer - Road & Heavy Construction VIII

Utility Compressors

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$44.98

Supplemental Benefit Rate per Hour: \$31.10

Supplemental Note: \$56.50 overtime hours

Shift Wage Rate: \$56.70

Operating Engineer - Road & Heavy Construction IX

Horizontal Boring Rig

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$68.25

Supplemental Benefit Rate per Hour: \$31.10

Supplemental Note: \$56.50 overtime hours

Shift Wage Rate: \$109.20

Operating Engineer - Road & Heavy Construction X

Elevators (manually operated as personnel hoist).

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$62.73

Supplemental Benefit Rate per Hour: \$31.10

Supplemental Note: \$56.50 overtime hours

Shift Wage Rate: \$100.37

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

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: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$48.73

Supplemental Benefit Rate per Hour: \$31.10

Supplemental Note: \$56.50 overtime hours

Shift Wage Rate: \$77.97

Operating Engineer - Road & Heavy Construction XII

All Drills and Machines of a similar nature.

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$72.53

Supplemental Benefit Rate per Hour: \$31.10

Supplemental Note: \$56.50 overtime hours

Shift Wage Rate: \$116.05

Operating Engineer - Road & Heavy Construction XIII

Concrete Pumps, Concrete Plant, Stone Crushers, Double Drum Hoist, Power Houses (other than above).

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$70.24

Supplemental Benefit Rate per Hour: \$31.10

Supplemental Note: \$56.50 overtime hours

Shift Wage Rate: \$112.38

Operating Engineer - Road & Heavy Construction XIV

Concrete Mixer

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$67.16

Supplemental Benefit Rate per Hour: \$31.10

Supplemental Note: \$56.50 overtime hours

Shift Wage Rate: \$107.46

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: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$45.27

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Supplemental Benefit Rate per Hour: \$31.10
Supplemental Note: \$56.50 overtime hours
Shift Wage Rate: \$72.43

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: 7/1/2016 - 6/30/2017
Wage Rate per Hour: \$64.13
Supplemental Benefit Rate per Hour: \$31.10
Supplemental Note: \$56.50 overtime hours
Shift Wage Rate: \$102.61

Operating Engineer - Road & Heavy Construction XVII

On-Site concrete plant engineer, On-site Asphalt Plant Engineer, and Vibratory console.

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate per Hour: \$64.63
Supplemental Benefit Rate per Hour: \$31.10
Supplemental Note: \$56.50 overtime hours
Shift Wage Rate: \$103.41

Operating Engineer - Road & Heavy Construction XVIII

Tower Crane

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate per Hour: \$92.76
Supplemental Benefit Rate per Hour: \$31.10
Supplemental Note: \$56.50 overtime hours
Shift Wage Rate: \$148.42

Operating Engineer - Paving I

Asphalt Spreaders, Autogrades (C.M.I.), Roto/Mil

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate per Hour: \$71.78
Supplemental Benefit Rate per Hour: \$31.10
Supplemental Note: \$56.50 overtime hours
Shift Wage Rate: \$114.85

Operating Engineer - Paving II

Asphalt Roller

Effective Period: 7/1/2016 - 6/30/2017

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Wage Rate per Hour: \$69.91
Supplemental Benefit Rate per Hour: \$31.10
Supplemental Note: \$56.50 overtime hours
Shift Wage Rate: \$111.86

Operating Engineer - Paving III

Asphalt Plants

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate per Hour: \$59.14
Supplemental Benefit Rate per Hour: \$31.10
Supplemental Note: \$56.50 overtime hours
Shift Wage Rate: \$94.62

Operating Engineer - Concrete I

Cranes

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate per Hour: \$76.73
Supplemental Benefit Rate per Hour: \$31.10
Supplemental Note: \$56.50 overtime hours

Operating Engineer - Concrete II

Compressors

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate per Hour: \$45.62
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: 7/1/2016 - 6/30/2017
Wage Rate per Hour: \$61.31
Supplemental Benefit Rate per Hour: \$31.10
Supplemental Note: \$56.50 overtime hours

Operating Engineer - Steel Erection I

Three Drum Derricks

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate per Hour: \$79.54
Supplemental Benefit Rate per Hour: \$31.10
Supplemental Note: \$56.50 overtime hours

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
\$220 PREVAILING WAGE SCHEDULE

Shift Wage Rate: \$127.26

Operating Engineer - Steel Erection II

Cranes, 2 Drum Derricks, Hydraulic Cranes, Fork Lifts and Boom Trucks.

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$76.43

Supplemental Benefit Rate per Hour: \$31.10

Supplemental Note: \$56.50 overtime hours

Shift Wage Rate: \$122.29

Operating Engineer - Steel Erection III

Compressors, Welding Machines.

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$45.34

Supplemental Benefit Rate per Hour: \$31.10

Supplemental Note: \$56.50 overtime hours

Shift Wage Rate: \$72.54

Operating Engineer - Steel Erection IV

Compressors - Not Combined with Welding Machine.

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$43.17

Supplemental Benefit Rate per Hour: \$31.10

Supplemental Note: \$56.50 overtime hours

Shift Wage Rate: \$69.07

Operating Engineer - Building Work I

Forklifts, Plaster (Platform machine), Plaster Bucket, Concrete Pump and all other equipment used for hoisting material.

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$63.12

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: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$47.26

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Supplemental Benefit Rate per Hour: **\$31.10**
Supplemental Note: **\$56.50** overtime hours

Operating Engineer - Building Work III

Double Drum

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate per Hour: **\$71.85**
Supplemental Benefit Rate per Hour: **\$31.10**
Supplemental Note: **\$56.50** overtime hours

Operating Engineer - Building Work IV

Stone Derrick, Cranes, Hydraulic Cranes Boom Trucks.

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate per Hour: **\$76.12**
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: 7/1/2016 - 6/30/2017
Wage Rate per Hour: **\$70.13**
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: 7/1/2016 - 6/30/2017
Wage Rate per Hour: **\$69.39**
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: 7/1/2016 - 6/30/2017
Wage Rate per Hour: **\$55.17**
Supplemental Benefit Rate per Hour: **\$31.10**
Supplemental Note: **\$56.50** overtime hours
For New House Car projects Wage Rate per Hour **\$44.02**

Overtime Description

**OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE**

On jobs of more than one shift, if an Employee fails to report for work through any cause over which the Employer has no control, the Employee on duty will continue to work at the rate of single time.

For House Cars and Rack & Pinion only: Overtime paid at time and one-half for all hours in excess of eight hours in a day, Saturday, Sunday and Holidays worked.

Overtime

Double time the regular rate after an 8 hour day.

Double time the regular time rate for Saturday.

Double time the regular rate for Sunday.

Double time the regular rate for work on the following holiday(s).

Paid Holidays

New Year's Day

Lincoln's Birthday

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

Employees must work at least one day in the payroll week in which the holiday occurs to receive the paid holiday

Shift Rates

For Steel Erection Only: Shifts may be worked at the single time rate at other than the regular working hours (8:00 A.M. to 4:30 P.M.) on the following work ONLY: Heavy construction jobs on work below the street level, over railroad tracks and on building jobs.

(Operating Engineer Local #14)

FLOOR COVERER

(Interior vinyl composition tile, sheath vinyl linoleum and wood parquet tile including site preparation and synthetic turf not including site preparation)

Floor Coverer

Effective Period: 7/1/2016 - 6/30/2017

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.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
\$220 PREVAILING WAGE SCHEDULE

Time and one half the regular rate for Saturday.
Double time the regular rate for Sunday.

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

1/2 day on Christmas Eve if work is performed in the A.M.
1/2 day on New Year's Eve if work is performed in the A.M.

Shift Rates

Two shifts may be utilized with the first shift working 8:00 A.M. to the end of the shift at the straight time of pay. The second shift will receive one hour at double time rate for the last hour of the shift. (eight for seven, nine for eight).

(Carpenters District Council)

GLAZIER

(New Construction, Remodeling, and Alteration)

Glazier

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$44.45**

Supplemental Benefit Rate per Hour: **\$37.84**

Supplemental Note: Supplemental Benefit Overtime Rate: **\$46.84**

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.

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
President's Day
Memorial Day
Independence Day
Labor Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

Paid Holidays

None

Shift Rates

Shifts shall be any 7 hours beyond 4:00 P.M. for which the glazier shall receive 8 hours pay for 7 hours worked.

(Local #1281)

GLAZIER - REPAIR & MAINTENANCE

(For the Installation of Glass - All repair and maintenance work on a particular building, whenever performed, where the total cumulative contract value is under \$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: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$23.78

Supplemental Benefit Rate per Hour: \$20.14

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

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Memorial Day
Independence Day
Labor Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

(Local #1281)

HEAT AND FROST INSULATOR

Heat & Frost Insulator

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$57.78

Supplemental Benefit Rate per Hour: \$38.96

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

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

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)

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: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$36.33**

Supplemental Benefit Rate per Hour: **\$27.77**

House Wrecker - Tier B

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$25.56**

Supplemental Benefit Rate per Hour: **\$20.45**

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

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

(Mason Tenders District Council)

IRON WORKER - ORNAMENTAL

Iron Worker - Ornamental

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$43.75**

Supplemental Benefit Rate per Hour: **\$49.57**

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)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

IRON WORKER - STRUCTURAL

Iron Worker - Structural

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$49.50

Supplemental Benefit Rate per Hour: \$69.74

Supplemental Note: Supplemental benefits are to be paid at the applicable overtime rate when overtime is in effect.

Overtime Description

Monday through Friday- the first eight hours are paid at straight time, the 9th and 10th hours are paid at time and one-half the regular rate, all additional weekday overtime is paid at double the regular rate. Saturdays- the first eight hours are paid at time and one-half the regular rate, double time thereafter. Sunday-all shifts are paid at double time.

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

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)

LABORER

(Foundation, Concrete, Excavating, Street Pipe Layer and Common)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

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: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$41.00**

Supplemental Benefit Rate per Hour: **\$38.63**

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

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)

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.)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Landscaper (Above 6 years experience)

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate per Hour: \$27.00
Supplemental Benefit Rate per Hour: \$14.55

Landscaper (3 - 6 years experience)

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate per Hour: \$26.00
Supplemental Benefit Rate per Hour: \$14.55

Landscaper (up to 3 years experience)

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate per Hour: \$23.50
Supplemental Benefit Rate per Hour: \$14.55

Groundperson

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate per Hour: \$23.50
Supplemental Benefit Rate per Hour: \$14.55

Tree Remover / Pruner

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate per Hour: \$32.00
Supplemental Benefit Rate per Hour: \$14.55

Landscaper Sprayer (Pesticide Applicator)

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate per Hour: \$22.00
Supplemental Benefit Rate per Hour: \$14.55

Watering - Plant Maintainer

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate per Hour: \$17.00
Supplemental Benefit Rate per Hour: \$14.55

Overtime Description

For all overtime work performed, supplemental benefits shall include an additional seventy-five (\$0.75) cents per hour.

Overtime

Time and one half the regular rate after an 8 hour day.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
\$220 PREVAILING WAGE SCHEDULE

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

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

Work performed on a 4pm to 12am shift has a 15% differential. Work performed on a 12am to 8am shift has a 20% differential.

(Local #175)

MARBLE MECHANIC

Marble Setter

Effective Period: 7/1/2016 - 12/31/2016

Wage Rate per Hour: **\$52.32**

Supplemental Benefit Rate per Hour: **\$37.64**

Effective Period: 1/1/2017 - 6/30/2017

Wage Rate per Hour: **\$52.74**

Supplemental Benefit Rate per Hour: **\$38.67**

Marble Finisher

Effective Period: 7/1/2016 - 12/31/2016

Wage Rate per Hour: **\$41.11**

Supplemental Benefit Rate per Hour: **\$35.91**

Effective Period: 1/1/2017 - 6/30/2017

Wage Rate per Hour: **\$41.46**

Supplemental Benefit Rate per Hour: **\$36.64**

Marble Polisher

Effective Period: 7/1/2016 - 12/31/2016

Wage Rate per Hour: **\$37.49**

Supplemental Benefit Rate per Hour: **\$27.80**

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Effective Period: 1/1/2017 - 6/30/2017

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

Christmas Day

Paid Holidays

None

(Local #7)

MASON TENDER

Mason Tender

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$37.55

Supplemental Benefit Rate per Hour: \$29.04

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

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)

MASON TENDER (INTERIOR DEMOLITION WORKER)

(The erection, building, moving, servicing and dismantling of enclosures, scaffolding, barricades, protection and site safety structures etc., on Interior Demolition jobs.)

Mason Tender Tier A

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$36.19

Supplemental Benefit Rate per Hour: \$22.95

Mason Tender Tier B

On Interior Demolition job sites 33 1/3 % of the employees shall be classified as Tier A Interior Demolition Workers and 66 2/3 % shall be classified as Tier B Interior Demolition Workers; provided that the employer may employ more than 33 1/3 % Tier A Interior Demolition Workers on the job site. Where the number of employees on a job site is not divisible by 3, the first additional employee (above the number of employees divisible by three) shall be a Tier B Interior Demolition Worker, and the second additional employee shall be a Tier A Interior Demolition Worker.

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$25.38

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Supplemental Benefit Rate per Hour: \$17.27

Overtime

Time and one half the regular rate after an 8 hour day.
Time and one half the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day
President's Day
Memorial Day
Independence Day
Labor Day
Thanksgiving Day
Christmas Day

Paid Holidays

None

(Local #79)

METALLIC LATHER

Metallic Lather

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$44.53

Supplemental Benefit Rate per Hour: \$42.67

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

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

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)

MILLWRIGHT

Millwright

Effective Period: 7/1/2016 - 6/30/2017

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.

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.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
\$220 PREVAILING WAGE SCHEDULE

Shift Rates

The first shift shall receive the straight time rate of pay. The second shift receives the straight time rate of pay plus fifteen (15%) per cent. Members of the second shift shall be allowed one half hour to eat, with this time being included in the hours of the workday established. There must be a first shift to work a second shift. All additional hours worked shall be paid at the time and one-half rate of pay plus fifteen (15%) per cent for weekday hours.

(Local #740)

MOSAIC MECHANIC

Mosaic Mechanic - Mosaic & Terrazzo Mechanic

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$46.52

Supplemental Benefit Rate per Hour: \$39.84

Supplemental Note: Supplemental benefits for overtime to be paid at the rate of \$50.86 per hour.

Mosaic Mechanic - Mosaic & Terrazzo Finisher

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$44.91

Supplemental Benefit Rate per Hour: \$39.83

Supplemental Note: Supplemental benefits for overtime to be paid at the rate of \$50.85 per hour.

Mosaic Mechanic - Machine Operator Grinder

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$44.91

Supplemental Benefit Rate per Hour: \$39.83

Supplemental Note: Supplemental benefits for overtime to be paid at the rate of \$50.85 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

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Veteran's Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

Paid Holidays

None

(Local #7)

PAINTER

Painter - Brush & Roller

Effective Period: 7/1/2016 - 4/30/2017

Wage Rate per Hour: **\$42.50**

Supplemental Benefit Rate per Hour: **\$26.62**

Supplemental Note: \$31.25 on overtime

Effective Period: 5/1/2017 - 6/30/2017

Wage Rate per Hour: **\$44.10**

Supplemental Benefit Rate per Hour: **\$27.02**

Supplemental Note: \$ 31.65 on overtime

Spray & Scaffold / Decorative / Sandblast

Effective Period: 7/1/2016 - 4/30/2017

Wage Rate per Hour: **\$45.50**

Supplemental Benefit Rate per Hour: **\$26.62**

Supplemental Note: \$ 31.25 on overtime

Effective Period: 5/1/2017 - 6/30/2017

Wage Rate per Hour: **\$47.10**

Supplemental Benefit Rate per Hour: **\$27.02**

Supplemental Note: \$ 31.65 on overtime

Overtime

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

Time and one half the regular rate for Saturday.

Time and one half the regular rate for Sunday.

Overtime Holidays

Time and one half the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Memorial Day

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Independence Day
Labor Day
Columbus Day
Thanksgiving Day
Christmas Day

Paid Holidays
None

(District Council of Painters #9)

PAINTER - METAL POLISHER

METAL POLISHER

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate per Hour: **\$28.88**
Supplemental Benefit Rate per Hour: **\$6.96**

METAL POLISHER - NEW CONSTRUCTION

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate per Hour: **\$29.83**
Supplemental Benefit Rate per Hour: **\$6.96**

METAL POLISHER - SCAFFOLD OVER 34 FEET

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate per Hour: **\$32.38**
Supplemental Benefit Rate per Hour: **\$6.96**

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 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).

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

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

PAINTER - STRIPER

Striper (paint)

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$35.00**

Supplemental Benefit Rate per Hour: **\$12.32**

Supplemental Note: Overtime Supplemental Benefit rate - \$8.02; New Hire Rate (0-3 months) - \$0.00

Lineperson (thermoplastic)

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$39.00**

Supplemental Benefit Rate per Hour: **\$12.32**

Supplemental Note: Overtime Supplemental Benefit rate - \$8.02; New Hire Rate (0-3 months) - \$0.00

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

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

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Columbus Day
Presidential Election Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

Shift Rates

Employees hired before April 1, 2003: 15% night shift premium differential for work commenced at 9:00 PM or later.

Vacation

Employees with one to two years service shall accrue vacation based on hours worked: 250 hours worked - 1 day vacation; 500 hours worked - 2 days vacation; 750 hours worked - 3 days vacation; 900 hours worked - 4 days vacation; 1,000 hours worked - 5 days vacation. Employees with two to five years service receive two weeks vacation. Employees with five to twenty years service receive three weeks vacation. Employees with twenty to twenty-five years service receive four weeks vacation. Employees with 25 or more years service receive five weeks vacation. Vacation must be taken during winter months. 2 Personal Days except employees hired after 4/1/12 who do not have 2 years of service.

(Local #917)

PAINTER - STRUCTURAL STEEL

Painters on Structural Steel

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$49.00

Supplemental Benefit Rate per Hour: \$36.08

Painter - Power Tool

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$55.00

Supplemental Benefit Rate per Hour: \$36.08

Overtime Description

Supplemental Benefits shall be paid for each hour worked, up to forty (40) hours per week for the period of May 1st to November 15th or up to fifty (50) hours per week for the period of November 16th to April 30th.

Overtime

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

Time and one half the regular rate for Saturday.

Time and one half the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Memorial Day
Independence Day
Labor Day
Thanksgiving Day
Christmas Day

Paid Holidays

None

Shift Rates

Regular hourly rates plus a ten per cent (10%) differential

(Local #806)

PAPERHANGER

Paperhanger

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$43.58

Supplemental Benefit Rate per Hour: \$30.73

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.

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.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

(District Council of Painters #9)

PAVER AND ROADBUILDER

Paver & Roadbuilder - Formsetter

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$45.35**

Supplemental Benefit Rate per Hour: **\$38.95**

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: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$41.48**

Supplemental Benefit Rate per Hour: **\$38.95**

Production Paver & Roadbuilder - Screed Person

(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: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$45.95**

Supplemental Benefit Rate per Hour: **\$38.95**

Production Paver & Roadbuilder - Raker

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$45.35**

Supplemental Benefit Rate per Hour: **\$38.95**

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: 7/1/2016 - 6/30/2017

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Wage Rate per Hour: **\$42.06**

Supplemental Benefit Rate per Hour: **\$38.95**

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.

(Local #1010)

PLASTERER

Plasterer

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$43.93**

Supplemental Benefit Rate per Hour: **\$28.10**

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.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day
Martin Luther King Jr. Day
President's Day
Good Friday
Memorial Day
Independence Day
Labor Day
Columbus Day
Presidential Election Day
Thanksgiving Day
Christmas Day

Paid Holidays

None

Shift Rates

When it is not possible to conduct alteration work during regular work hours, in a building occupied by tenants, said work shall proceed on a shift basis: however work over seven (7) hours in any twenty four (24) hour period, the time after seven (7) hours shall be considered overtime.

The second shift shall start at a time between 3:30 p.m. and 7:00 p.m. and shall consist of seven (7) working hours and shall receive eight (8) hours of wages and benefits at the straight time rate. The workers on the second shift shall be allowed one-half (½) hour to eat with this time being included in the seven (7) hours of work.

(Local #262)

PLASTERER - TENDER

Plasterer - Tender

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$37.55

Supplemental Benefit Rate per Hour: \$29.04

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

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Double time the regular rate for work on the following holiday(s).

New Year's Day
Washington's Birthday
Memorial Day
Independence Day
Labor Day
Presidential Election Day
Thanksgiving Day
Christmas Day

Paid Holidays

None

Shift Rates

When work commences outside regular work hours, workers receive an hour additional (differential) wage and supplement payment. Eight hours pay for seven hours work or nine hours pay for eight hours work.

(Mason Tenders District Council)

PLUMBER

Plumber

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$65.67**

Supplemental Benefit Rate per Hour: **\$29.28**

Supplemental Note: Overtime supplemental benefit rate per hour: **\$58.28**

Plumber - Temporary Services

Temporary Services - When there are no Plumbers on the job site, there may be three shifts designed to cover the entire twenty-four hour period, including weekends if necessary, at the following rate straight time.

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$52.56**

Supplemental Benefit Rate per Hour: **\$23.40**

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.

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
President's Day
Memorial Day
Independence Day
Labor Day
Columbus Day
Veteran's Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

Shift Rates

Shift work, when directly specified in public agency or authority documents where plumbing contract is \$8 million or less, will be permitted. 30% shift premium shall be paid for wages and fringe benefits for 4:00 pm and midnight shifts Monday to Friday. 50% shift premium shall be paid for wages and fringe benefits for 4:00 pm and midnight shift work performed on weekends. For shift work on holidays, double time wages and fringe benefits shall be paid.

(Plumbers Local #1)

PLUMBER (MECHANICAL EQUIPMENT AND SERVICE)

(Mechanical Equipment and Service work shall include any repair and/or replacement of the present plumbing system.)

Plumber

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$39.42

Supplemental Benefit Rate per Hour: \$14.19

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

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Day after Thanksgiving
Christmas Day

Paid Holidays

None

(Plumbers Local # 1)

PLUMBER (RESIDENTIAL RATES FOR 1, 2 AND 3 FAMILY HOME CONSTRUCTION)

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$45.47

Supplemental Benefit Rate per Hour: \$21.26

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

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)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220. PREVAILING WAGE SCHEDULE

PLUMBER: PUMP & TANK
Oil Trades (Installation and Maintenance)

Plumber - Pump & Tank

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$63.52**

Supplemental Benefit Rate per Hour: **\$22.91**

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Time and one half the regular rate for Sunday.

Overtime Holidays

Time and one half the regular rate for work on the following holiday(s).

New Year's Day
President's Day
Memorial Day
Independence Day
Labor Day
Columbus Day
Veteran's Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

Paid Holidays

None

Shift Rates

All work outside the regular workday (8:00 A.M. to 3:30 P.M.) is to be paid at time and one half the regular hourly rate

(Plumbers Local #1)

**POINTER, WATERPROOFER, CAULKER, SANDBLASTER,
STEAMBLASTER**
(Exterior Building Renovation)

Journey person

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$50.04

Supplemental Benefit Rate per Hour: \$26.15

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)

ROOFER

Roofer

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$40.70

Supplemental Benefit Rate per Hour: \$30.17

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Time and one half the regular rate for Sunday.

Overtime Holidays

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Time and one half the regular rate for work on the following holiday(s).

New Year's Day
President's Day
Memorial Day
Independence Day
Labor Day
Presidential Election Day
Thanksgiving Day
Christmas Day

Paid Holidays

None

Shift Rates

Second shift - Regular hourly rate plus a 10% differential. Third shift - Regular hourly rate plus a 15% differential.

(Local #8)

SHEET METAL WORKER

Sheet Metal Worker

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$47.70**

Supplemental Benefit Rate per Hour: **\$46.45**

Supplemental Note: Supplemental benefit contributions are to be made at the applicable overtime rates.

Sheet Metal Worker - Fan Maintenance

(The temporary operation of fans or blowers in new or existing buildings for heating and/or ventilation, and/or air conditioning prior to the completion of the project.)

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$38.16**

Supplemental Benefit Rate per Hour: **\$46.45**

Sheet Metal Worker - Duct Cleaner

Effective Period: 7/1/2016 - 6/30/2017

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.

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
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)

**SHEET METAL WORKER - SPECIALTY
(Decking & Siding)**

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: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$43.25

Supplemental Benefit Rate per Hour: \$24.41

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.

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
Martin Luther King Jr. Day
President's Day
Memorial Day
Independence Day
Labor Day
Columbus Day
Veteran's Day
Thanksgiving Day
Christmas Day

Paid Holidays

None

(Local #28)

SHIPYARD WORKER

Shipyard Mechanic - First Class

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$28.33

Supplemental Benefit Rate per Hour: \$3.04

Shipyard Mechanic - Second Class

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$22.18

Supplemental Benefit Rate per Hour: \$2.80

Shipyard Laborer - First Class

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$20.45

Supplemental Benefit Rate per Hour: \$2.74

Shipyard Laborer - Second Class

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$14.36

Supplemental Benefit Rate per Hour: \$2.50

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
\$220 PREVAILING WAGE SCHEDULE

Shipyard Dockhand - First Class

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$22.70

Supplemental Benefit Rate per Hour: \$2.82

Shipyard Dockhand - Second Class

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$16.01

Supplemental Benefit Rate per Hour: \$2.57

Overtime Description

Work performed on holiday is paid double time the regular hourly wage rate plus holiday pay.

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Time and one half the regular hourly rate after 40 hours in any work week.

Paid Holidays

New Year's Day

Martin Luther King Jr. Day

President's Day

Good Friday

Memorial Day

Independence Day

Labor Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

Based on Survey Data

SIGN ERECTOR

(Sheet Metal, Plastic, Electric, and Neon)

Sign Erector

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$46.85

Supplemental Benefit Rate per Hour: \$48.57

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Overtime

Time and one half the regular rate after a 7 hour day.
Time and one half the regular rate for Saturday.
Time and one half the regular rate for Sunday.
Time and one half the regular rate for work on the following holiday(s).

Paid Holidays

New Year's Day
Washington's Birthday
Memorial Day
Independence Day
Labor Day
Columbus Day
Election Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

Shift Rates

Time and one half the regular hourly rate is to be paid for all hours worked outside the regular workday either (7:00 A.M. through 2:30 P.M.) or (8:00 A.M. through 3:30 P.M.)

(Local #137)

STEAMFITTER

Steamfitter I

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate per Hour: **\$55.50**
Supplemental Benefit Rate per Hour: **\$54.29**
Supplemental Note: Overtime supplemental benefit rate: **\$107.84**

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: 7/1/2016 - 6/30/2017
Wage Rate per Hour: **\$42.18**
Supplemental Benefit Rate per Hour: **\$44.08**

Overtime

Double time the regular rate after a 7 hour day.
Double time the regular time rate for Saturday.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day
President's Day
Memorial Day
Independence Day
Labor Day
Columbus Day
Veteran's Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

Paid Holidays

None

Shift Rates

Work performed between 3:30 P.M. and 7:00 A.M. and on Saturdays, Sundays and Holidays shall be at double time the regular hourly rate and paid at the overtime supplemental benefit rate above.

Steamfitter II

For heating, ventilation, air conditioning and mechanical public works contracts with a dollar value not to exceed \$15,000,000 and for fire protection/sprinkler public works contracts not to exceed \$1,500,000.

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$55.50**

Supplemental Benefit Rate per Hour: **\$54.29**

Supplemental Note: Overtime supplemental benefit rate: **\$107.84**

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: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$42.18**

Supplemental Benefit Rate per Hour: **\$44.08**

Overtime

Double time the regular rate after an 8 hour day.

Double time the regular time rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Double time the regular rate for work on the following holiday(s).

New Year's Day
President's Day
Memorial Day
Independence Day
Labor Day
Columbus Day
Veteran's Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

Paid Holidays

None

Shift Rates

May be performed outside of the regular workday except Saturday, Sunday and Holidays. A shift shall consist of eight working hours. All work performed in excess of eight hours shall be paid at double time. No shift shall commence after 7:00 P.M. on Friday or 7:00 P.M. the day before holidays. All work performed after 12:01 A.M. Saturday or 12:01 A.M. the day before a Holiday will be paid at double time. When shift work is performed the wage rate for regular time worked is a thirty percent premium together with fringe benefits.

On Transit Authority projects, where work is performed in the vicinity of tracks all shift work on weekends and holidays may be performed at the regular shift rates.

Local #638

**STEAMFITTER - REFRIGERATION AND AIR CONDITIONER
(Maintenance and Installation Service Person)**

Refrigeration and Air Conditioner Mechanic

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate per Hour: \$39.50
Supplemental Benefit Rate per Hour: \$15.06

Refrigeration and Air Conditioner Service Person V

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate per Hour: \$32.46
Supplemental Benefit Rate per Hour: \$13.53

Refrigeration and Air Conditioner Service Person IV

Effective Period: 7/1/2016 - 6/30/2017

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Wage Rate per Hour: \$26.89
Supplemental Benefit Rate per Hour: \$12.26

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: 7/1/2016 - 6/30/2017
Wage Rate per Hour: \$23.08
Supplemental Benefit Rate per Hour: \$11.31

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: 7/1/2016 - 6/30/2017
Wage Rate per Hour: \$19.14
Supplemental Benefit Rate per Hour: \$10.43

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: 7/1/2016 - 6/30/2017
Wage Rate per Hour: \$14.00
Supplemental Benefit Rate per Hour: \$9.46

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.

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

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
\$220 PREVAILING WAGE SCHEDULE

New Year's Day
Martin Luther King Jr. Day
President's Day
Memorial Day
Independence Day
Labor Day
Columbus Day
Veteran's Day
Thanksgiving Day
Christmas Day

(Local #638B)

STONE MASON - SETTER

Stone Mason - Setters

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$51.08

Supplemental Benefit Rate per Hour: \$38.10

Overtime

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

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

Washington's Birthday

Good Friday

Memorial Day

Independence Day

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)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

TAPER

Drywall Taper

Effective Period: 7/1/2016 - 12/27/2016

Wage Rate per Hour: \$47.32

Supplemental Benefit Rate per Hour: \$22.68

Effective Period: 12/28/2016 - 6/30/2017

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.

Shift Rates

Time and one half the regular rate outside the regular work hours (8:00 A.M. through 3:30 P.M.)

(Local #1974)

TELECOMMUNICATION WORKER (Voice Installation Only)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Telecommunication Worker

Effective Period: 7/1/2016 - 6/30/2017

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

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.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

(C.W.A.)

TILE FINISHER

Tile Finisher

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$40.69

Supplemental Benefit Rate per Hour: \$30.58

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)

TILE LAYER - SETTER

Tile Layer - Setter

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$52.68

Supplemental Benefit Rate per Hour: \$34.48

Overtime

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

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Good Friday

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

Shift Rates

Off shift work day (work performed outside the regular 8:00 A.M. to 3:30 P.M. workday): shift differential of one and one quarter (1¼) times the regular straight time rate of pay for the seven hours of actual off-shift work.

(Local #7)

TIMBERPERSON

Timberperson

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$46.99

Supplemental Benefit Rate per Hour: \$48.26

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.

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
President's Day
Memorial Day
Independence Day
Labor Day
Columbus Day
Presidential Election Day
Thanksgiving Day
Christmas Day

Paid Holidays

None

Shift Rates

Off shift work commencing between 5:00 P.M. and 11:00 P.M. shall work eight and one half hours allowing for one half hour for lunch. The wage rate shall be 113% of the straight time hourly wage rate.

(Local #1536)

TUNNEL WORKER

Blasters, Mucking Machine Operators (Compressed Air Rates)

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate per Hour: \$60.97
Supplemental Benefit Rate per Hour: \$50.72

Tunnel Workers (Compressed Air Rates)

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate per Hour: \$58.86
Supplemental Benefit Rate per Hour: \$49.03

Top Nipper (Compressed Air Rates)

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate per Hour: \$57.78
Supplemental Benefit Rate per Hour: \$48.16

Outside Lock Tender, Outside Gauge Tender, Muck Lock Tender (Compressed Air Rates)

Effective Period: 7/1/2016 - 6/30/2017

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Wage Rate per Hour: **\$56.74**
Supplemental Benefit Rate per Hour: **\$47.25**

Bottom Bell & Top Bell Signal Person: Shaft Person (Compressed Air Rates)

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate per Hour: **\$56.74**
Supplemental Benefit Rate per Hour: **\$47.25**

Changehouse Attendant: Powder Watchperson (Compressed Air Rates)

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate per Hour: **\$49.69**
Supplemental Benefit Rate per Hour: **\$44.69**

Blasters (Free Air Rates)

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate per Hour: **\$58.19**
Supplemental Benefit Rate per Hour: **\$48.68**

Tunnel Workers (Free Air Rates)

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate per Hour: **\$55.69**
Supplemental Benefit Rate per Hour: **\$46.61**

All Others (Free Air Rates)

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate per Hour: **\$51.45**
Supplemental Benefit Rate per Hour: **\$43.13**

Microtunneling (Free Air Rates)

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate per Hour: **\$44.55**
Supplemental Benefit Rate per Hour: **\$37.29**

Overtime Description

For Repair-Maintenance Work on Existing Equipment and Facilities - Time and one half the regular rate after a 7 hour day, or for Saturday, or for Sunday. Double time the regular rate for work on a holiday.
For Small-Bore Micro Tunneling Machines - Time and one-half the regular rate shall be paid for all overtime.

Overtime

Double time the regular rate after an 8 hour day.
Double time the regular time rate for Saturday.
Double time the regular rate for Sunday.
Double time the regular rate for work on the following holiday(s).

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Paid Holidays

New Year's Day
Lincoln's Birthday
President's Day
Memorial Day
Independence Day
Labor Day
Columbus Day
Election Day
Veteran's Day
Thanksgiving Day
Christmas Day

(Local #147)

WELDER

**TO BE PAID AT THE RATE OF THE JOURNEYPERSON IN THE TRADE
PERFORMING THE WORK.**

(NO TEXT ON THIS PAGE)

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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ASBESTOS HANDLER

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

Asbestos Handler (First 1000 Hours)

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate Per Hour: 78% of Journeyperson's rate

Supplemental Benefit Rate Per Hour: \$16.45

Asbestos Handler (Second 1000 Hours)

Effective Period: 7/1/2016 - 6/30/2017

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

Supplemental Benefit Rate Per Hour: \$16.45

Asbestos Handler (Third 1000 Hours)

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate Per Hour: 83% of Journeyperson's rate

Supplemental Benefit Rate Per Hour: \$16.45

Asbestos Handler (Fourth 1000 Hours)

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate Per Hour: 89% of Journeyperson's rate

Supplemental Benefit Rate Per Hour: \$16.45

(Local #78)

BOILERMAKER

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

Boilermaker (First Year)

Effective Period: 7/1/2016 - 6/30/2017

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

Supplemental Benefit Rate Per Hour: \$30.43

Effective 1/1/2017 - Supplemental Benefit Rate Per Hour: \$30.84

Boilermaker (Second Year: 1st Six Months)

Effective Period: 7/1/2016 - 6/30/2017

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: \$32.13
Effective 1/1/2017 - Supplemental Benefit Rate Per Hour: \$32.57

Boilermaker (Second Year: 2nd Six Months)

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 75% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$33.82
Effective 1/1/2017 - Supplemental Benefit Rate Per Hour: \$34.29

Boilermaker (Third Year: 1st Six Months)

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 80% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$35.53
Effective 1/1/2017 - Supplemental Benefit Rate Per Hour: \$36.03

Boilermaker (Third Year: 2nd Six Months)

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 85% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$37.23
Effective 1/1/2017 - Supplemental Benefit Rate Per Hour: \$37.76

Boilermaker (Fourth Year: 1st Six Months)

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 90% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$38.93
Effective 1/1/2017 - Supplemental Benefit Rate Per Hour: \$39.51

Boilermaker (Fourth Year: 2nd Six Months)

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 95% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$40.63
Effective 1/1/2017 - Supplemental Benefit Rate Per Hour: \$41.22

(Local #5)

BRICKLAYER

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

Bricklayer (First 750 Hours)

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Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 50% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$18.35

Bricklayer (Second 750 Hours)

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 60% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$18.35

Bricklayer (Third 750 Hours)

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 70% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$18.35

Bricklayer (Fourth 750 Hours)

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 80% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$18.35

Bricklayer (Fifth 750 Hours)

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 90% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$18.35

Bricklayer (Sixth 750 Hours)

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 95% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$18.35

(Bricklayer District Council)

CARPENTER

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

Carpenter (First Year)

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 40% of Journeyperson's rate
Supplemental Benefit Rate Per Hour For Building Apprentice: \$31.34

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Supplemental Benefit Rate Per Hour For Heavy Apprentice: \$32.52

Carpenter (Second Year)

Effective Period: 7/1/2016 - 6/30/2017

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: \$32.52

Carpenter (Third Year)

Effective Period: 7/1/2016 - 6/30/2017

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: \$32.52

Carpenter (Fourth Year)

Effective Period: 7/1/2016 - 6/30/2017

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: \$32.52

(Carpenters District Council)

CEMENT MASON

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

Cement Mason (First Year)

Effective Period: 7/1/2016 - 6/30/2017

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

Cement Mason (Second Year)

Effective Period: 7/1/2016 - 6/30/2017

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

Cement Mason (Third Year)

Effective Period: 7/1/2016 - 6/30/2017

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

(Local #780)

CEMENT AND CONCRETE WORKER
(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 3)

Cement & Concrete Worker (First 1333 hours)

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 50% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$16.25

Cement & Concrete Worker (Second 1333 hours)

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 65% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$21.08

Cement & Concrete Worker (Last 1334 hours)

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 80% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$21.90

Cement & Concrete Worker (Hired after 2/6/2016 - First 1334 hours)

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: \$17.00
Supplemental Benefit Rate Per Hour: \$10.75

Cement & Concrete Worker (Hired after 2/6/2016 - Second 1334 hours)

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: \$22.10
Supplemental Benefit Rate Per Hour: \$15.13

Cement & Concrete Worker (Hired after 2/6/2016 - Last 1334 hours)

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: \$27.20
Supplemental Benefit Rate Per Hour: \$15.63

(Cement Concrete Workers District Council)

DERRICKPERSON & RIGGER (STONE)
(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 4)

Derrickperson & Rigger (stone) - First Year

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 50% of Journeyman's rate
Supplemental Benefit Rate Per Hour: 50% of Journeyman's rate

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

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 70% of Journeyman's rate
Supplemental Benefit Rate Per Hour: 75% of Journeyman's rate

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

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 80% of Journeyman's rate
Supplemental Benefit Rate Per Hour: 75% of Journeyman's rate

Derrickperson & Rigger (stone) - Third Year

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 90% of Journeyman's rate
Supplemental Benefit Rate Per Hour: 75% of Journeyman's rate

(Local #197)

DOCKBUILDER/PILE DRIVER
(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 6)

Dockbuilder/Pile Driver (First Year)

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 40% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$32.52

Dockbuilder/Pile Driver (Second Year)

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 50% of Journeyman's rate

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Supplemental Benefit Rate Per Hour: \$32.52

Dockbuilder/Pile Driver (Third Year)

Effective Period: 7/1/2016 - 6/30/2017

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

Supplemental Benefit Rate Per Hour: \$32.52

Dockbuilder/Pile Driver (Fourth Year)

Effective Period: 7/1/2016 - 6/30/2017

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

Supplemental Benefit Rate Per Hour: \$32.52

(Carpenters District Council)

ELECTRICIAN

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

Electrician (First Term: 0-6 Months)

Effective Period: 7/1/2016 - 5/10/2017

Wage Rate per Hour: \$13.50

Supplemental Benefit Rate per Hour: \$12.12

Overtime Supplemental Rate Per Hour: \$13.01

Effective Period: 5/11/2017 - 6/30/2017

Wage Rate per Hour: \$14.00

Supplemental Benefit Rate per Hour: \$12.37

Overtime Supplemental Rate Per Hour: \$13.29

Electrician (First Term: 7-12 Months)

Effective Period: 7/1/2016 - 5/10/2017

Wage Rate per Hour: \$14.50

Supplemental Benefit Rate per Hour: \$12.63

Overtime Supplemental Rate Per Hour: \$13.58

Effective Period: 5/11/2017 - 6/30/2017

Wage Rate per Hour: \$15.00

Supplemental Benefit Rate per Hour: \$12.88

Overtime Supplemental Rate Per Hour: \$13.87

Electrician (Second Term: 0-6 Months)

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Effective Period: 7/1/2016 - 5/10/2017
Wage Rate per Hour: **\$15.50**
Supplemental Benefit Rate per Hour: **\$13.14**
Overtime Supplemental Rate Per Hour: **\$14.16**

Effective Period: 5/11/2017 - 6/30/2017
Wage Rate per Hour: **\$16.00**
Supplemental Benefit Rate per Hour: **\$13.39**
Overtime Supplemental Rate Per Hour: **\$14.44**

Electrician (Second Term: 7-12 Months)

Effective Period: 7/1/2016 - 5/10/2017
Wage Rate per Hour: **\$16.50**
Supplemental Benefit Rate per Hour: **\$13.64**
Overtime Supplemental Rate Per Hour: **\$14.73**

Effective Period: 5/11/2017 - 6/30/2017
Wage Rate per Hour: **\$17.00**
Supplemental Benefit Rate per Hour: **\$13.90**
Overtime Supplemental Rate Per Hour: **\$15.02**

Electrician (Third Term: 0-6 Months)

Effective Period: 7/1/2016 - 5/10/2017
Wage Rate per Hour: **\$17.50**
Supplemental Benefit Rate per Hour: **\$14.15**
Overtime Supplemental Rate Per Hour: **\$15.31**

Effective Period: 5/11/2017 - 6/30/2017
Wage Rate per Hour: **\$18.00**
Supplemental Benefit Rate per Hour: **\$14.41**
Overtime Supplemental Rate Per Hour: **\$15.59**

Electrician (Third Term: 7-12 Months)

Effective Period: 7/1/2016 - 5/10/2017
Wage Rate per Hour: **\$18.50**
Supplemental Benefit Rate per Hour: **\$14.66**
Overtime Supplemental Rate Per Hour: **\$15.88**

Effective Period: 5/11/2017 - 6/30/2017
Wage Rate per Hour: **\$19.00**
Supplemental Benefit Rate per Hour: **\$14.92**
Overtime Supplemental Rate Per Hour: **\$16.17**

Electrician (Fourth Term: 0-6 Months)

Effective Period: 7/1/2016 - 5/10/2017

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Wage Rate per Hour: **\$19.50**
Supplemental Benefit Rate per Hour: **\$15.17**
Overtime Supplemental Rate Per Hour: **\$16.45**

Effective Period: 5/11/2017 - 6/30/2017
Wage Rate per Hour: **\$20.00**
Supplemental Benefit Rate per Hour: **\$15.43**
Overtime Supplemental Rate Per Hour: **\$16.75**

Electrician (Fourth Term: 7-12 Months)

Effective Period: 7/1/2016 - 5/10/2017
Wage Rate per Hour: **\$21.50**
Supplemental Benefit Rate per Hour: **\$16.19**
Overtime Supplemental Rate Per Hour: **\$17.60**

Effective Period: 5/11/2017 - 6/30/2017
Wage Rate per Hour: **\$22.00**
Supplemental Benefit Rate per Hour: **\$16.44**
Overtime Supplemental Rate Per Hour: **\$17.89**

Electrician (Fifth Term: 0-12 Months)

Effective Period: 7/1/2016 - 5/10/2017
Wage Rate per Hour: **\$23.50**
Supplemental Benefit Rate per Hour: **\$19.54**
Overtime Supplemental Rate Per Hour: **\$21.01**

Effective Period: 5/11/2017 - 6/30/2017
Wage Rate per Hour: **\$24.00**
Supplemental Benefit Rate per Hour: **\$19.80**
Overtime Supplemental Rate Per Hour: **\$21.30**

Electrician (Fifth Term: 13-18 Months)

Effective Period: 7/1/2016 - 5/10/2017
Wage Rate per Hour: **\$28.00**
Supplemental Benefit Rate per Hour: **\$21.85**
Overtime Supplemental Rate Per Hour: **\$23.60**

Effective Period: 5/11/2017 - 6/30/2017
Wage Rate per Hour: **\$28.50**
Supplemental Benefit Rate per Hour: **\$22.10**
Overtime Supplemental Rate Per Hour: **\$23.89**

Overtime Description

Overtime Wage paid at time and one half the regular rate

(Local #3)

ELEVATOR CONSTRUCTOR **(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 2)**

Elevator (Constructor) - First Year

Effective Period: 7/1/2016 - 3/16/2017
Wage Rate Per Hour: 50% of Journeyman's rate
Supplemental Rate Per Hour: \$28.24

Effective Period: 3/17/2017 - 6/30/2017
Wage Rate Per Hour: 50% of Journeyman's rate
Supplemental Rate Per Hour: \$29.72

Elevator (Constructor) - Second Year

Effective Period: 7/1/2016 - 3/16/2017
Wage Rate Per Hour: 55% of Journeyman's rate
Supplemental Rate Per Hour: \$28.67

Effective Period: 3/17/2017 - 6/30/2017
Wage Rate Per Hour: 55% of Journeyman's rate
Supplemental Rate Per Hour: \$30.15

Elevator (Constructor) - Third Year

Effective Period: 7/1/2016 - 3/16/2017
Wage Rate Per Hour: 65% of Journeyman's rate
Supplemental Rate Per Hour: \$29.52

Effective Period: 3/17/2017 - 6/30/2017
Wage Rate Per Hour: 65% of Journeyman's rate
Supplemental Rate Per Hour: \$31.03

Elevator (Constructor) - Fourth Year

Effective Period: 7/1/2016 - 3/16/2017
Wage Rate Per Hour: 75% of Journeyman's rate
Supplemental Rate Per Hour: \$30.37

Effective Period: 3/17/2017 - 6/30/2017
Wage Rate Per Hour: 75% of Journeyman's rate
Supplemental Rate Per Hour: \$31.91

(Local #1)

ELEVATOR REPAIR & MAINTENANCE

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 2)

Elevator Service/Modernization Mechanic (First Year)

Effective Period: 7/1/2016 - 3/16/2017
Wage Rate Per Hour: 50% of Journeyman's rate
Supplemental Benefit Per Hour: \$28.33

Effective Period: 3/17/2017 - 6/30/2017
Wage Rate Per Hour: 50% of Journeyman's rate
Supplemental Benefit Per Hour: \$29.80

Elevator Service/Modernization Mechanic (Second Year)

Effective Period: 7/1/2016 - 3/16/2017
Wage Rate Per Hour: 55% of Journeyman's rate
Supplemental Benefit Per Hour: \$28.74

Effective Period: 3/17/2017 - 6/30/2017
Wage Rate Per Hour: 55% of Journeyman's rate
Supplemental Benefit Per Hour: \$30.23

Elevator Service/Modernization Mechanic (Third Year)

Effective Period: 7/1/2016 - 3/16/2017
Wage Rate Per Hour: 65% of Journeyman's rate
Supplemental Benefit Per Hour: \$29.58

Effective Period: 3/17/2017 - 6/30/2017
Wage Rate Per Hour: 65% of Journeyman's rate
Supplemental Benefit Per Hour: \$31.09

Elevator Service/Modernization Mechanic (Fourth Year)

Effective Period: 7/1/2016 - 3/16/2017
Wage Rate Per Hour: 75% of Journeyman's rate
Supplemental Benefit Per Hour: \$30.42

Effective Period: 3/17/2017 - 6/30/2017
Wage Rate Per Hour: 75% of Journeyman's rate
Supplemental Benefit Per Hour: \$31.95

(Local #1)

ENGINEER

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 5)

Engineer - First Year

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$24.28**

Supplemental Benefit Rate per Hour: **\$23.41**

Engineer - Second Year

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$30.35**

Supplemental Benefit Rate per Hour: **\$23.41**

Engineer - Third Year

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$33.38**

Supplemental Benefit Rate per Hour: **\$23.41**

Engineer - Fourth Year

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$36.41**

Supplemental Benefit Rate per Hour: **\$23.41**

(Local #15)

ENGINEER - OPERATING

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 5)

Operating Engineer - First Year

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate Per Hour 40% of Journeyman's Rate

Supplemental Benefit Per Hour: **\$20.85**

Operating Engineer - Second Year

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Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 50% of Journeyperson's Rate
Supplemental Benefit Per Hour: \$20.85

Operating Engineer - Third Year

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 60% of Journeyperson's Rate
Supplemental Benefit Per Hour: \$20.85

(Local #14)

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

Floor Coverer (First Year)

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 40% of Journeyperson's rate
Supplemental Rate Per Hour: \$31.14

Floor Coverer (Second Year)

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 50% of Journeyperson's rate
Supplemental Rate Per Hour: \$31.14

Floor Coverer (Third Year)

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 65% of Journeyperson's rate
Supplemental Rate Per Hour: \$31.14

Floor Coverer (Fourth Year)

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 80% of Journeyperson's rate
Supplemental Rate Per Hour: \$31.14

(Carpenters District Council)

GLAZIER

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

Glazier (First Year)

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 40% of Journeyman's rate
Supplemental Rate Per Hour: \$14.14

Glazier (Second Year)

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 50% of Journeyman's rate
Supplemental Rate Per Hour: \$23.77

Glazier (Third Year)

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 60% of Journeyman's rate
Supplemental Rate Per Hour: \$26.73

Glazier (Fourth Year)

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 80% of Journeyman's rate
Supplemental Rate Per Hour: \$32.14

(Local #1281)

HEAT & FROST INSULATOR

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

Heat & Frost Insulator (First Year)

Effective Period: 7/1/2016 - 6/30/2017
Wage and Supplemental Rate Per Hour: 40% of Journeyman's rate

Heat & Frost Insulator (Second Year)

Effective Period: 7/1/2016 - 6/30/2017
Wage and Supplemental Rate Per Hour: 60% of Journeyman's rate

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Heat & Frost Insulator (Third Year)

Effective Period: 7/1/2016 - 6/30/2017

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

Heat & Frost Insulator (Fourth Year)

Effective Period: 7/1/2016 - 6/30/2017

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

(Local #12)

**HOUSE WRECKER
(TOTAL DEMOLITION)**

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

House Wrecker - First Year

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$21.17

Supplemental Benefit Rate per Hour: \$17.99

House Wrecker - Second Year

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$22.32

Supplemental Benefit Rate per Hour: \$17.99

House Wrecker - Third Year

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$23.97

Supplemental Benefit Rate per Hour: \$17.99

House Wrecker - Fourth Year

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$26.53

Supplemental Benefit Rate per Hour: \$17.99

(Mason Tenders District Council)

IRON WORKER - ORNAMENTAL

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

Iron Worker (Ornamental) - 1st Ten Months

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 50% of Journeyman's rate
Supplemental Rate Per Hour: \$37.90

Iron Worker (Ornamental) - 11 -16 Months

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 55% of Journeyman's rate
Supplemental Rate Per Hour: \$39.06

Iron Worker (Ornamental) - 17 - 22 Months

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 60% of Journeyman's rate
Supplemental Rate Per Hour: \$40.23

Iron Worker (Ornamental) - 23 - 28 Months

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 70% of Journeyman's rate
Supplemental Rate Per Hour: \$42.57

Iron Worker (Ornamental) - 29 - 36 Months

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 80% of Journeyman's rate
Supplemental Rate Per Hour: \$44.90

(Local #580)

IRON WORKER - STRUCTURAL

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 6)

Iron Worker (Structural) - 1st Six Months

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Effective Period: 7/1/2016 - 6/30/2017
Wage Rate per Hour: \$25.85
Supplemental Benefit Rate per Hour: \$48.35

Iron Worker (Structural) - 7- 18 Months

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate per Hour: \$26.45
Supplemental Benefit Rate per Hour: \$48.35

Iron Worker (Structural) - 19 - 36 months

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate per Hour: \$27.05
Supplemental Benefit Rate per Hour: \$48.35

(Local #40 and #361)

**LABORER (FOUNDATION, CONCRETE, EXCAVATING, STREET PIPE
LAYER & COMMON)
(Ratio Apprentice to Journeyperson: 1 to 1, 1 to 3)**

**Laborer (Foundation, Concrete, Excavating, Street Pipe Layer & Common) - First
1000 hours**

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 50% of Journeyperson's rate
Supplemental Rate Per Hour: \$38.63

**Laborer (Foundation, Concrete, Excavating, Street Pipe Layer & Common) -
Second 1000 hours**

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 60% of Journeyperson's rate
Supplemental Rate Per Hour: \$38.63

**Laborer (Foundation, Concrete, Excavating, Street Pipe Layer & Common) -
Third 1000 hours**

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 75% of Journeyperson's rate
Supplemental Rate Per Hour: \$38.63

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**Laborer (Foundation, Concrete, Excavating, Street Pipe Layer & Common) -
Fourth 1000 hours**

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 90% of Journeyperson's rate
Supplemental Rate Per Hour: \$38.63

(Local #731)

**MARBLE MECHANICS
(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 4)**

Cutters & Setters - First 750 Hours

Effective Period: 7/1/2016 - 6/30/2017
Wage and Supplemental Rate Per Hour: 50% of Journeyperson's rate
NO BENEFITS PAID DURING THE FIRST TWO MONTHS (PROBATIONARY PERIOD)

Cutters & Setters - Second 750 Hours

Effective Period: 7/1/2016 - 6/30/2017
Wage and Supplemental Rate Per Hour: 55% of Journeyperson's rate

Cutters & Setters - Third 750 Hours

Effective Period: 7/1/2016 - 6/30/2017
Wage and Supplemental Rate Per Hour: 65% of Journeyperson's rate

Cutters & Setters - Fourth 750 Hours

Effective Period: 7/1/2016 - 6/30/2017
Wage and Supplemental Rate Per Hour: 75% of Journeyperson's rate

Cutters & Setters - Fifth 750 Hours

Effective Period: 7/1/2016 - 6/30/2017
Wage and Supplemental Rate Per Hour: 85% of Journeyperson's rate

Cutters & Setters - Sixth 750 Hours

Effective Period: 7/1/2016 - 6/30/2017
Wage and Supplemental Rate Per Hour: 95% of Journeyperson's rate

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Polishers & Finishers - First 750 Hours

Effective Period: 7/1/2016 - 6/30/2017

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

NO BENEFITS PAID DURING THE FIRST TWO MONTHS (PROBATIONARY PERIOD)

Polishers & Finishers - Second 750 Hours

Effective Period: 7/1/2016 - 6/30/2017

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

Polishers & Finishers - Third 750 Hours

Effective Period: 7/1/2016 - 6/30/2017

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

Polishers & Finishers - Fourth 750 Hours

Effective Period: 7/1/2016 - 6/30/2017

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

(Local #7)

MASON TENDER

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

Mason Tender - First Year

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$21.39

Supplemental Benefit Rate per Hour: \$19.10

Mason Tender - Second Year

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$22.54

Supplemental Benefit Rate per Hour: \$19.10

Mason Tender - Third Year

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$24.29

Supplemental Benefit Rate per Hour: \$19.15

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Mason Tender - Fourth Year

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$26.95**

Supplemental Benefit Rate per Hour: **\$19.15**

(Local #79)

METALLIC LATHER

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

Metallic Lather (First Year)

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$23.01**

Supplemental Benefit Rate per Hour: **\$17.95**

Metallic Lather (Second Year)

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$28.11**

Supplemental Benefit Rate per Hour: **\$17.95**

Metallic Lather (Third Year)

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$33.21**

Supplemental Benefit Rate per Hour: **\$17.95**

(Local #46)

MILLWRIGHT

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

Millwright (First Year)

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Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$28.33**

Supplemental Benefit Rate per Hour: **\$34.28**

Millwright (Second Year)

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$33.48**

Supplemental Benefit Rate per Hour: **\$37.88**

Millwright (Third Year)

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$38.63**

Supplemental Benefit Rate per Hour: **\$42.13**

Millwright (Fourth Year)

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$48.93**

Supplemental Benefit Rate per Hour: **\$48.69**

(Local #740)

PAVER AND ROADBUILDER

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

Paver and Roadbuilder - First Year (Minimum 1000 hours)

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$27.55**

Supplemental Benefit Rate per Hour: **\$18.20**

Paver and Roadbuilder - Second Year (Minimum 1000 hours)

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$29.19**

Supplemental Benefit Rate per Hour: **\$18.20**

(Local #1010)

PAINTER

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

Painter - Brush & Roller - First Year

Effective Period: 7/1/2016 - 4/30/2017

Wage Rate per Hour: **\$17.00**

Supplemental Benefit Rate per Hour: **\$12.38**

Effective Period: 5/1/2017 - 6/30/2017

Wage Rate per Hour: **\$17.64**

Supplemental Benefit Rate per Hour: **\$12.78**

Painter - Brush & Roller - Second Year

Effective Period: 7/1/2016 - 4/30/2017

Wage Rate per Hour: **\$21.25**

Supplemental Benefit Rate per Hour: **\$16.23**

Effective Period: 5/1/2017 - 6/30/2017

Wage Rate per Hour: **\$22.05**

Supplemental Benefit Rate per Hour: **\$16.63**

Painter - Brush & Roller - Third Year

Effective Period: 7/1/2016 - 4/30/2017

Wage Rate per Hour: **\$25.50**

Supplemental Benefit Rate per Hour: **\$19.14**

Effective Period: 5/1/2017 - 6/30/2017

Wage Rate per Hour: **\$26.46**

Supplemental Benefit Rate per Hour: **\$19.54**

Painter - Brush & Roller - Fourth Year

Effective Period: 7/1/2016 - 4/30/2017

Wage Rate per Hour: **\$34.00**

Supplemental Benefit Rate per Hour: **\$24.52**

Effective Period: 5/1/2017 - 6/30/2017

Wage Rate per Hour: **\$35.28**

Supplemental Benefit Rate per Hour: **\$24.92**

(District Council of Painters)

PAINTER - METAL POLISHER

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

Metal Polisher (First Year)

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$11.75**

Supplemental Benefit Rate per Hour: **\$5.13**

Metal Polisher (Second Year)

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$13.00**

Supplemental Benefit Rate per Hour: **\$5.13**

Metal Polisher (Third Year)

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$15.75**

Supplemental Benefit Rate per Hour: **\$5.13**

(Local 8A-28)

PAINTER - STRUCTURAL STEEL

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

Painters - Structural Steel (First Year)

Effective Period: 7/1/2016 - 6/30/2017

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

Painters - Structural Steel (Second Year)

Effective Period: 7/1/2016 - 6/30/2017

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

Painters - Structural Steel (Third Year)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2016 - 6/30/2017

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

(Local #806)

PLASTERER

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

Plasterer - First Year: 1st Six Months

Effective Period: 7/1/2016 - 6/30/2017

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

Supplemental Rate Per Hour: \$15.91

Plasterer - First Year: 2nd Six Months

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate Per Hour: 45% of Journeyperson's rate

Supplemental Rate Per Hour: \$16.39

Plasterer - Second Year: 1st Six Months

Effective Period: 7/1/2016 - 6/30/2017

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

Supplemental Rate Per Hour: \$18.36

Plasterer - Second Year: 2nd Six Months

Effective Period: 7/1/2016 - 6/30/2017

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

Supplemental Rate Per Hour: \$19.44

Plasterer - Third Year: 1st Six Months

Effective Period: 7/1/2016 - 6/30/2017

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

Supplemental Rate Per Hour: \$21.61

Plasterer - Third Year: 2nd Six Months

Effective Period: 7/1/2016 - 6/30/2017

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

Supplemental Rate Per Hour: \$22.69

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

(Local #530)

PLASTERER - TENDER

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

Plasterer Tender - First Year

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$21.39**

Supplemental Benefit Rate per Hour: **\$19.10**

Plasterer Tender - Second Year

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$22.54**

Supplemental Benefit Rate per Hour: **\$19.10**

Plasterer Tender - Third Year

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$24.29**

Supplemental Benefit Rate per Hour: **\$19.15**

Plasterer Tender - Fourth Year

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$26.95**

Supplemental Benefit Rate per Hour: **\$19.15**

(Local #79)

PLUMBER

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

Plumber - First Year: 1st Six Months

Effective Period: 7/1/2016 - 6/30/2017

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Wage Rate per Hour: **\$14.00**
Supplemental Benefit Rate per Hour: **\$0.71**

Plumber - First Year: 2nd Six Months

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate per Hour: **\$14.00**
Supplemental Benefit Rate per Hour: **\$2.96**

Plumber - Second Year

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate per Hour: **\$24.07**
Supplemental Benefit Rate per Hour: **\$13.21**

Plumber - Third Year

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate per Hour: **\$26.17**
Supplemental Benefit Rate per Hour: **\$13.21**

Plumber - Fourth Year

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate per Hour: **\$29.02**
Supplemental Benefit Rate per Hour: **\$13.21**

Plumber - Fifth Year: 1st Six Months

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate per Hour: **\$30.42**
Supplemental Benefit Rate per Hour: **\$13.21**

Plumber - Fifth Year: 2nd Six Months

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate per Hour: **\$42.49**
Supplemental Benefit Rate per Hour: **\$13.21**

(Plumbers Local #1)

**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: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$26.52

Supplemental Benefit Rate per Hour: \$12.10

Pointer, Waterproofer, Caulker, Sandblaster, Steamblaster - Second Year

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$27.89

Supplemental Benefit Rate per Hour: \$16.75

Pointer, Waterproofer, Caulker, Sandblaster, Steamblaster - Third Year

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$33.98

Supplemental Benefit Rate per Hour: \$19.50

Pointer, Waterproofer, Caulker, Sandblaster, Steamblaster - Fourth Year

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: \$40.80

Supplemental Benefit Rate per Hour: \$20.35

(Bricklayer District Council)

ROOFER

(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 2)

Rofer - First Year

Effective Period: 7/1/2016 - 6/30/2017

Wage and Supplemental Rate Per Hour: 35% of Journeyperson's Rate

Rofer - Second Year

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Effective Period: 7/1/2016 - 6/30/2017

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

Roofer - Third Year

Effective Period: 7/1/2016 - 6/30/2017

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

Roofer - Fourth Year

Effective Period: 7/1/2016 - 6/30/2017

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

(Local #8)

SHEET METAL WORKER

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

Sheet Metal Worker (0-6 Months)

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate Per Hour: 25% of Journeyman's rate

Supplemental Rate Per Hour: \$6.35

Sheet Metal Worker (7-18 Months)

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate Per Hour: 35% of Journeyman's rate

Supplemental Rate Per Hour: \$17.12

Sheet Metal Worker (19-30 Months)

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate Per Hour: 45% of Journeyman's rate

Supplemental Rate Per Hour: \$23.54

Sheet Metal Worker (31-36 Months)

Effective Period: 7/1/2016 - 6/30/2017

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

Supplemental Rate Per Hour: \$27.70

Sheet Metal Worker (37-42 Months)

Effective Period: 7/1/2016 - 6/30/2017

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§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Wage Rate Per Hour: 60% of Journeyperson's rate
Supplemental Rate Per Hour: \$29.11

Sheet Metal Worker (43-48 Months)

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 70% of Journeyperson's rate
Supplemental Rate Per Hour: \$33.96

Sheet Metal Worker (49-54 Months)

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 75% of Journeyperson's rate
Supplemental Rate Per Hour: \$36.07

Sheet Metal Worker (55-60 Months)

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 80% of Journeyperson's rate
Supplemental Rate Per Hour: \$38.15

(Local #28)

SIGN ERECTOR

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

Sign Erector - First Year: 1st Six Months

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 35% of Journeyperson's rate
Supplemental Rate Per Hour: \$13.95

Sign Erector - First Year: 2nd Six Months

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 40% of Journeyperson's rate
Supplemental Rate Per Hour: \$15.83

Sign Erector - Second Year: 1st Six Months

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 45% of Journeyperson's rate
Supplemental Rate Per Hour: \$17.72

Sign Erector - Second Year: 2nd Six Months

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 50% of Journeyperson's rate
Supplemental Rate Per Hour: \$19.60

Sign Erector - Third Year: 1st Six Months

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 55% of Journeyperson's rate
Supplemental Rate Per Hour: \$26.23

Sign Erector - Third Year: 2nd Six Months

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 60% of Journeyperson's rate
Supplemental Rate Per Hour: \$28.24

Sign Erector - Fourth Year: 1st Six Months

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 65% of Journeyperson's rate
Supplemental Rate Per Hour: \$30.98

Sign Erector - Fourth Year: 2nd Six Months

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 70% of Journeyperson's rate
Supplemental Rate Per Hour: \$33.06

Sign Erector - Fifth Year

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 75% of Journeyperson's rate
Supplemental Rate Per Hour: \$35.15

Sign Erector - Sixth Year

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 80% of Journeyperson's rate
Supplemental Rate Per Hour: \$37.22

(Local #137)

STEAMFITTER

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

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Steamfitter - First Year

Effective Period: 7/1/2016 - 6/30/2017

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

Steamfitter - Second Year

Effective Period: 7/1/2016 - 6/30/2017

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

Steamfitter - Third Year

Effective Period: 7/1/2016 - 6/30/2017

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

Steamfitter - Fourth Year

Effective Period: 7/1/2016 - 6/30/2017

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

Steamfitter - Fifth Year

Effective Period: 7/1/2016 - 6/30/2017

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

(Local #638)

STONE MASON - SETTER

(Ratio Apprentice of Journeyperson: 1 to 1, 1 to 2)

Stone Mason - Setters - First 750 Hours

Effective Period: 7/1/2016 - 6/30/2017

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

Stone Mason - Setters - Second 750 Hours

Effective Period: 7/1/2016 - 6/30/2017

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

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

Stone Mason - Setters - Third 750 Hours

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
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Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 70% of Journeyperson's rate
Supplemental Rate Per Hour: 50% of Journeyperson's rate

Stone Mason - Setters - Fourth 750 Hours

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 80% of Journeyperson's rate
Supplemental Rate Per Hour: 50% of Journeyperson's rate

Stone Mason - Setters - Fifth 750 Hours

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 90% of Journeyperson's rate
Supplemental Rate Per Hour: 50% of Journeyperson's rate

Stone Mason - Setters - Sixth 750 Hours

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 100% of Journeyperson's rate
Supplemental Rate Per Hour: 50% of Journeyperson's rate

(Bricklayers District Council)

TAPER

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

Drywall Taper - First Year

Effective Period: 7/1/2016 - 6/30/2017
Wage and Supplemental Rate Per Hour: 40% of Journeyperson's rate

Drywall Taper - Second Year

Effective Period: 7/1/2016 - 6/30/2017
Wage and Supplemental Rate Per Hour: 60% of Journeyperson's rate

Drywall Taper - Third Year

Effective Period: 7/1/2016 - 6/30/2017
Wage and Supplemental Rate Per Hour: 80% of Journeyperson's rate

(Local #1974)

TILE LAYER - SETTER

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

Tile Layer - Setter - First 750 Hours

Effective Period: 7/1/2016 - 6/30/2017

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

Tile Layer - Setter - Second 750 Hours

Effective Period: 7/1/2016 - 6/30/2017

Wage and Supplemental Rate Per Hour: 55% of Journeyman's rate

Tile Layer - Setter - Third 750 Hours

Effective Period: 7/1/2016 - 6/30/2017

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

Tile Layer - Setter - Fourth 750 Hours

Effective Period: 7/1/2016 - 6/30/2017

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

Tile Layer - Setter - Fifth 750 Hours

Effective Period: 7/1/2016 - 6/30/2017

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

Tile Layer - Setter - Sixth 750 Hours

Effective Period: 7/1/2016 - 6/30/2017

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

(Local #7)

TIMBERPERSON

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 6)

Timberperson - First Year

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Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 40% of Journeyperson's rate
Supplemental Rate Per Hour: \$32.33

Timberperson - Second Year

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 50% of Journeyperson's rate
Supplemental Rate Per Hour: \$32.33

Timberperson - Third Year

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 65% of Journeyperson's rate
Supplemental Rate Per Hour: \$32.33

Timberperson - Fourth Year

Effective Period: 7/1/2016 - 6/30/2017
Wage Rate Per Hour: 80% of Journeyperson's rate
Supplemental Rate Per Hour: \$32.33

(Local #1536)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§230 PREVAILING WAGE SCHEDULE

LABOR LAW §230 AND NYC ADMINISTRATIVE CODE §6-130
BUILDING SERVICE EMPLOYEES

PREVAILING WAGE FOR BUILDING SERVICE EMPLOYEES ON NYC CONTRACTS PURSUANT TO LABOR LAW §230 ET SEQ.

Building service employees on public contracts must receive not less than the prevailing rate of wage and supplements for the classification of work performed. In accordance with Labor Law §230 et seq. the Comptroller of the City of New York has promulgated this schedule of prevailing wages and supplemental benefits for building service employees engaged on New York City public building service contracts in excess of \$1,500.00. Prevailing rates are required to be annexed to and form part of the contract pursuant to §231 (4).

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 234 (1). 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 building services contracts. Contractors are advised to review the Comptroller's Prevailing Wage Schedule before bidding on building services contracts. Contractors with questions concerning trade classifications, prevailing rates or prevailing practices with respect to building services 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 building services contracts that have already been awarded may be directed to the Bureau of Labor Law's Classification Unit by calling (212) 669-7974. All callers must have the agency name and contract registration number available when calling with questions on building services contracts. Please direct all other compliance issues to: Bureau of Labor Law, Attn: Wasyl Kinach, P.E., Office of the Comptroller, 1 Centre Street, Room 1122, New York, N.Y. 10007; Fax (212) 669-4002.

PREVAILING WAGE FOR BUILDING SERVICE EMPLOYEES IN BUILDINGS WITH TAX ABATEMENTS PURSUANT TO REAL PROPERTY TAX LAW §421-A

Covered Landlords shall ensure that all building service employees performing work in buildings with 50 or more dwelling units for which construction was commenced after December 27, 2007 but no later than December 31, 2015, that receive a tax abatement pursuant to Real Property Tax Law §421-a, are paid no less than the prevailing wage listed in the Labor Law §230 Prevailing Wage Schedule, unless the New York City Department of Housing Preservation and Development certifies that, at initial occupancy, at least 50 percent of the dwelling units are affordable to individuals or families with a gross household income at or below 125 percent of the area median income and that any such units which are

**OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§230 PREVAILING WAGE SCHEDULE**

located in rental buildings will be subject to restrictions to insure that they will remain affordable for the entire period during which they receive benefits under Real Property Tax Law §421-a.

PREVAILING WAGE FOR BUILDING SERVICE EMPLOYEES IN NEW YORK CITY LEASED OR FINANCIALLY ASSISTED FACILITIES PURSUANT TO NYC ADMINISTRATIVE CODE § 6-130

Covered landlords & covered financial assistance recipients shall ensure that all building service employees performing building service work at the premises to which a lease or financial assistance pertains are paid no less than the prevailing wage listed in the Labor Law §230 Prevailing Wage Schedule.

Covered Landlords include:

Businesses (other than not-for-profit organizations) leasing to New York City agencies commercial office space or commercial office facilities of 10,000 square feet or more where the City leases or rents no less than 51% of the total square footage of the building to which the lease applies (no less than 80% in Staten Island or in an area not defined as an exclusion area pursuant to section 421-a of the real property tax law on the date of enactment of the local law).

Covered Financial Assistance Recipients include:

Businesses (other than not-for-profit organizations) with annual gross revenues of five million dollars or more who have received financial assistance from the City of New York (as defined in New York City Administrative Code §6-130) with a total value of one million dollars or more.

Exemptions: Business Improvement Districts and employers with manufacturing operations at the premises to which the financial assistance pertains.

The information is intended to assist you in meeting your prevailing wage obligation. You should consult New York City Administrative Code §6-130 to determine whether you are covered by this prevailing wage law. New York City Administrative Code § 6-130 requires the City to maintain an updated list of covered landlords and financial assistance recipients who are subject to the prevailing wage requirement.

Labor Law § 231 (6) and NYC Administrative Law §6-130 requires contractors to post on the site of the work a current copy of this schedule of wages and supplements.

This schedule is applicable to work performed during the effective period, unless otherwise noted. Changes to this schedule are published on our web site www.comptroller.nyc.gov. Contractors must pay the wages and supplements in effect when the building service employee 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.

Contractors are solely responsible for maintaining original payroll records delineating, among other things, the hours worked by each employee within a given classification.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§230 PREVAILING WAGE SCHEDULE

Some of the rates in this schedule are based on collective bargaining agreements. 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.

In order to meet their obligation to provide prevailing supplemental benefits to each covered employee, employers must either:

- 1) Provide bona-fide benefits which cost the employer no less than the prevailing supplemental benefits rate; or
- 2) Supplement the employee's hourly wage by an amount no less than the prevailing supplemental benefits rate; or
- 3) Provide a combination of bona-fide benefits and wage supplements which cost the employer no less than the prevailing supplemental benefits rate in total.

Particular attention should be given to the supplemental benefits requirement. Although in most instances the payment or provision for supplemental benefits is for each hour worked, some classifications require the payment or provision of supplemental benefits for each hour paid. Consequently, some prevailing practices require benefits to be purchased at the overtime, shift differential, Holiday, Saturday, Sunday or other premium time rate.

Benefits are paid for **EACH HOUR WORKED** unless otherwise noted.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§230 PREVAILING WAGE SCHEDULE



The City of New York
Office of the Comptroller
Bureau Of Labor Law
1 Centre Street
New York, NY 10007

Scott M. Stringer
Comptroller

If you are a Covered Building Service Employee and you have been paid less than the Prevailing Wage and Benefits, please contact us at 212-669-4443 or download our complaint form from our website at WWW.COMPTROLLER.NYC.GOV (click on the Bureau of Labor Law).

Si es un empleado de servicios a edificios elegible y recibió menos del sueldo prevalente y beneficios, por favor contáctenos en 212-669-4443 o descarga un formulario de reclamo del sitio del Internet WWW.COMPTROLLER.NYC.GOV (oprime "Oficina de Derecho Laboral").

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

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§230 PREVAILING WAGE SCHEDULE

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BUILDING CLEANER AND MAINTAINER (OFFICE)

Office Building Class "A" Handyperson (Over 280,000 square feet gross area)

Effective Period: 7/1/2016 - 12/31/2016

Wage Rate per Hour: **\$26.95**

Supplemental Benefit Rate per Hour: **\$10.98**

Supplemental Note: for new hire 0-3 months of employment - **\$0.00**

Effective Period: 1/1/2017 - 6/30/2017

Wage Rate per Hour: **\$27.60**

Supplemental Benefit Rate per Hour: **\$11.56**

Supplemental Note: for new hire 0-3 months of employment - **\$0.00**

Office Building Class "A" Foreperson, Starter (Over 280,000 square feet gross area)

Effective Period: 7/1/2016 - 12/31/2016

Wage Rate per Hour: **\$26.84**

Supplemental Benefit Rate per Hour: **\$10.98**

Supplemental Note: for new hire 0-3 months of employment - **\$0.00**

Effective Period: 1/1/2017 - 6/30/2017

Wage Rate per Hour: **\$27.49**

Supplemental Benefit Rate per Hour: **\$11.56**

Supplemental Note: for new hire 0-3 months of employment - **\$0.00**

Office Building Class "A" Cleaner/Porter, Elevator Operator, Exterminator, Fire Safety Director (Over 280,000 square feet gross area)

Effective Period: 7/1/2016 - 12/31/2016

Wage Rate per Hour: **\$24.62**

Supplemental Benefit Rate per Hour: **\$10.98**

Supplemental Note: for new hire 0-3 months of employment - **\$0.00**; for new hire 4-12 months of employment - **\$8.09**; for new hire 13-24 months of employment - **\$10.65**

NEW HIRE: Cleaner/Porter, Elevator Operator, Exterminator, Fire Safety Director may be paid 75% of the wage rate above for the first 21 months of employment, 85% of the wage rate above for the 22nd through 42nd months of employment, and upon the completion of 42 months of employment employee shall be paid the full wage rate.

Effective Period: 1/1/2017 - 6/30/2017

Wage Rate per Hour: **\$25.22**

Supplemental Benefit Rate per Hour: **\$11.56**

Supplemental Note: for new hire 0-3 months of employment - **\$0.00**; for new hire 4-12 months of employment - **\$8.57**; for new hire 13-24 months of employment - **\$11.23**

NEW HIRE: Cleaner/Porter, Elevator Operator, Exterminator, Fire Safety Director may be paid 75% of the wage rate above for the first 21 months of employment, 85% of the wage rate above for the 22nd through 42nd months of employment, and upon the completion of 42 months of employment employee shall be paid the full wage rate.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§230 PREVAILING WAGE SCHEDULE

Office Building Class "B" Handyperson (Over 120,000 and less than 280,000 square feet gross area)

Effective Period: 7/1/2016 - 12/31/2016

Wage Rate per Hour: **\$26.92**

Supplemental Benefit Rate per Hour: **\$10.98**

Supplemental Note: for new hire 0-3 months of employment - \$0.00

Effective Period: 1/1/2017 - 6/30/2017

Wage Rate per Hour: **\$27.57**

Supplemental Benefit Rate per Hour: **\$11.56**

Supplemental Note: for new hire 0-3 months of employment - \$0.00

Office Building Class "B" Foreperson, Starter (Over 120,000 and less than 280,000 square feet gross area)

Effective Period: 7/1/2016 - 12/31/2016

Wage Rate per Hour: **\$26.80**

Supplemental Benefit Rate per Hour: **\$10.98**

Supplemental Note: for new hire 0-3 months of employment - \$0.00

Effective Period: 1/1/2017 - 6/30/2017

Wage Rate per Hour: **\$27.45**

Supplemental Benefit Rate per Hour: **\$11.56**

Supplemental Note: for new hire 0-3 months of employment - \$0.00

Office Building Class "B" Cleaner/Porter, Elevator Operator, Exterminator, Fire Safety Director (Over 120,000 and less than 280,000 square feet gross area)

Effective Period: 7/1/2016 - 12/31/2016

Wage Rate per Hour: **\$24.59**

Supplemental Benefit Rate per Hour: **\$10.98**

Supplemental Note: for new hire 0-3 months of employment - \$0.00; for new hire 4-12 months of employment - \$8.09; for new hire 13-24 months of employment - \$10.65

NEW HIRE: Cleaner/Porter, Elevator Operator, Exterminator, Fire Safety Director may be paid 75% of the wage rate above for the first 21 months of employment, 85% of the wage rate above for the 22nd through 42nd months of employment, and upon the completion of 42 months of employment employee shall be paid the full wage rate.

Effective Period: 1/1/2017 - 6/30/2017

Wage Rate per Hour: **\$25.19**

Supplemental Benefit Rate per Hour: **\$11.56**

Supplemental Note: for new hire 0-3 months of employment - \$0.00; for new hire 4-12 months of employment - \$8.57; for new hire 13-24 months of employment - \$11.23

NEW HIRE: Cleaner/Porter, Elevator Operator, Exterminator, Fire Safety Director may be paid 75% of the wage rate above for the first 21 months of employment, 85% of the wage rate above for the 22nd through 42nd months of employment, and upon the completion of 42 months of employment employee shall be paid the full wage rate.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§230 PREVAILING WAGE SCHEDULE

Office Building Class "C" Handyperson (Less than 120,000 square feet gross area)

Effective Period: 7/1/2016 - 12/31/2016

Wage Rate per Hour: **\$26.87**

Supplemental Benefit Rate per Hour: **\$10.98**

Supplemental Note: for new hire 0-3 months of employment - \$0.00

Effective Period: 1/1/2017 - 6/30/2017

Wage Rate per Hour: **\$27.52**

Supplemental Benefit Rate per Hour: **\$11.56**

Supplemental Note: for new hire 0-3 months of employment - \$0.00

Office Building Class "C" Foreperson, Starter (Less than 120,000 square feet gross area)

Effective Period: 7/1/2016 - 12/31/2016

Wage Rate per Hour: **\$26.76**

Supplemental Benefit Rate per Hour: **\$10.98**

Supplemental Note: for new hire 0-3 months of employment - \$0.00

Effective Period: 1/1/2017 - 6/30/2017

Wage Rate per Hour: **\$27.41**

Supplemental Benefit Rate per Hour: **\$11.56**

Supplemental Note: for new hire 0-3 months of employment - \$0.00

Office Building Class "C" Cleaner/Porter, Elevator Operator, Exterminator, Fire Safety Director (Less than 120,000 square feet gross area)

Effective Period: 7/1/2016 - 12/31/2016

Wage Rate per Hour: **\$24.55**

Supplemental Benefit Rate per Hour: **\$10.98**

Supplemental Note: for new hire 0-3 months of employment - \$0.00; for new hire 4-12 months of employment - \$8.09; for new hire 13-24 months of employment - \$10.65

NEW HIRE: Cleaner/Porter, Elevator Operator, Exterminator, Fire Safety Director may be paid 75% of the wage rate above for the first 21 months of employment, 85% of the wage rate above for the 22nd through 42nd months of employment, and upon the completion of 42 months of employment employee shall be paid the full wage rate.

Effective Period: 1/1/2017 - 6/30/2017

Wage Rate per Hour: **\$25.15**

Supplemental Benefit Rate per Hour: **\$11.56**

Supplemental Note: for new hire 0-3 months of employment - \$0.00; for new hire 4-12 months of employment - \$8.57; for new hire 13-24 months of employment - \$11.23

NEW HIRE: Cleaner/Porter, Elevator Operator, Exterminator, Fire Safety Director may be paid 75% of the wage rate above for the first 21 months of employment, 85% of the wage rate above for the 22nd through 42nd months of employment, and upon the completion of 42 months of employment employee shall be paid the full wage rate.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§230 PREVAILING WAGE SCHEDULE

For all BUILDING CLEANER AND MAINTAINER (OFFICE) titles, New Hire shall be defined as an employee who has not worked any hours during the previous six-month period, and Months of Employment shall be defined as an Employee's total length of service with the Employer or at the Facility, whichever is greater.

Overtime Description

Supplemental Benefits shall be paid for each hour paid, up to forty (40) paid hours per week.

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.
- Time and one half the regular hourly rate after 40 hours in any work week.

Paid Holidays

- New Year's Day
- President's Day
- Good Friday
- Memorial Day
- Independence Day
- Labor Day
- Columbus Day
- Thanksgiving Day
- Day after Thanksgiving
- Christmas Day

Vacation

- Less than 6 months of work.....no vacation
- 6 months of work.....three (3) days
- 1 year of work.....ten (10) days
- 5 years of work.....fifteen (15) days
- 15 years of work.....twenty (20) days
- 21 years of work.....twenty-one (21) days
- 22 years of work.....twenty-two (22) days
- 23 years of work.....twenty-three (23) days
- 24 years of work.....twenty-four (24) days
- 25 years or more of work.....twenty-five (25) days
- Plus two Personal Days per year.

Sick Leave:

- 10 sick days per year.
- Unused sick leave paid in the succeeding January, one full day pay for each unused sick day.

(Local #32 B/J)

BUILDING CLEANER AND MAINTAINER (RESIDENTIAL)

Residential Building Handyperson

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§230 PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2016 - 12/31/2016

Wage Rate per Hour: **\$25.43**

Supplemental Benefit Rate per Hour: **\$10.90**

Supplemental Note: for new hire 0-3 months of employment - \$0.00

Effective Period: 1/1/2017 - 4/20/2017

Wage Rate per Hour: **\$25.43**

Supplemental Benefit Rate per Hour: **\$11.48**

Supplemental Note: for new hire 0-3 months of employment - \$0.00

Effective Period: 4/21/2017 - 6/30/2017

Wage Rate per Hour: **\$26.18**

Supplemental Benefit Rate per Hour: **\$11.48**

Supplemental Note: for new hire 0-3 months of employment - \$0.00

Residential Building Cleaner/Porter, Doorman, Elevator Operator

Effective Period: 7/1/2016 - 12/31/2016

Wage Rate per Hour: **\$23.06**

Supplemental Benefit Rate per Hour: **\$10.90**

Supplemental Note: for new hire 0-3 months of employment - \$0.00; for new hire 4-12 months of employment - \$8.09; for new hire 13-24 months of employment - \$10.65

NEW HIRE - Cleaner/Porter, Doorman, Elevator Operator: 0-21 months may be paid 75% of the hourly wage rate published above, 22-42 months may be paid 85% of the hourly wage rate published above. Upon completion of 42 months of employment, the new hire shall be paid the full wage rate. Upon completion of two years of employment the new hire receives the full supplemental benefit rate.

Effective Period: 1/1/2017 - 4/20/2017

Wage Rate per Hour: **\$23.06**

Supplemental Benefit Rate per Hour: **\$11.48**

Supplemental Note: for new hire 0-3 months of employment - \$0.00; for new hire 4-12 months of employment - \$8.57; for new hire 13-24 months of employment - \$11.23

NEW HIRE - Cleaner/Porter, Doorman, Elevator Operator: 0-21 months may be paid 75% of the hourly wage rate published above, 22-42 months may be paid 85% of the hourly wage rate published above. Upon completion of 42 months of employment, the new hire shall be paid the full wage rate. Upon completion of two years of employment the new hire receives the full supplemental benefit rate.

Effective Period: 4/21/2017 - 6/30/2017

Wage Rate per Hour: **\$23.75**

Supplemental Benefit Rate per Hour: **\$11.48**

Supplemental Note: for new hire 0-3 months of employment - \$0.00; for new hire 4-12 months of employment - \$8.57; for new hire 13-24 months of employment - \$11.23

NEW HIRE - Cleaner/Porter, Doorman, Elevator Operator: 0-21 months may be paid 75% of the hourly wage rate published above, 22-42 months may be paid 85% of the hourly wage rate published above. Upon completion of 42 months of employment, the new hire shall be paid the full wage rate. Upon completion of two years of employment the new hire receives the full supplemental benefit rate.

Overtime Description

Supplemental Benefits shall be paid for each hour paid, up to forty (40) paid hours per week.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§230 PREVAILING WAGE SCHEDULE

Overtime

Time and one half the regular rate after an 8 hour day.
Time and one half the regular rate for work on a holiday plus the day's pay.
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
Memorial Day
Independence Day
Labor Day
Columbus Day
Election Day
Thanksgiving Day
Christmas Day

Vacation

6 months.....three (3) days
1 year.....ten (10) days
5 years.....fifteen (15) days
15 years.....twenty (20) days
21 years.....twenty-one (21) days
22 years.....twenty-two (22) days
23 years.....twenty-three (23) days
24 years.....twenty-four (24) days
25 years.....twenty-five (25) days
Plus two Personal Days per year.

SICK LEAVE

After 1 year of service.....ten (10) days per year

(Local #32 B/J)

BUILDING HVAC SERVICES OPERATOR

Engineer (Refrigeration)

Effective Period: 7/1/2016 - 12/31/2016
Wage Rate per Hour: **\$38.96**
Supplemental Benefit Rate per Hour: **\$17.26**

Effective Period: 1/1/2017 - 6/30/2017
Wage Rate per Hour: **\$40.13**
Supplemental Benefit Rate per Hour: **\$17.77**

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§230 PREVAILING WAGE SCHEDULE

NEW HIRE - Engineer (Refrigeration): for the first year may be paid a starting rate of 85% of the hourly wage rate published above.

Fireperson

Fireperson (Helper): Assist the Engineer

Effective Period: 7/1/2016 - 12/31/2016

Wage Rate per Hour: **\$30.34**

Supplemental Benefit Rate per Hour: **\$16.86**

Effective Period: 1/1/2017 - 6/30/2017

Wage Rate per Hour: **\$31.25**

Supplemental Benefit Rate per Hour: **\$17.36**

Please note that the NYC Comptroller's Office does not publish rates for the Stationary Engineer title.

Overtime Description

All hours worked on a holiday shall be paid at two and one half times the regular wage rate in lieu of the paid day off.

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.

Paid Holidays

New Year's Day

Memorial Day

Independence Day

Labor Day

Thanksgiving Day

Christmas Day

Plus six (6) floating Holidays

Vacation

6 months three (3) days

1 year ten (10) days

5 years fifteen (15) days

15 years twenty (20) days

21 years twenty-one (21) days

22 years twenty-two (22) days

23 years twenty-three (23) days

24 years twenty-four (24) days

25 years twenty-five (25) days

(Local #94)

CLEANER (PARKING GARAGE)

Garage Cleaner

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$11.23**

Supplemental Benefit Rate per Hour: **\$1.75**

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular hourly rate after 40 hours in any work week.

(Based on data from NYS Department of Labor Occupational Employment Statistics and US Department of Labor Bureau of Labor Statistics)

FUEL OIL

Fuel Oil, Coal, Fuel Gas, Petroleum Product Chauffeur (5th Year and above)

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$32.36**

Supplemental Benefit Rate per Hour: **\$22.59**

Fuel Oil, Coal, Fuel Gas, Petroleum Product Chauffeur (4th Year)

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$29.75**

Supplemental Benefit Rate per Hour: **\$22.59**

Fuel Oil, Coal, Fuel Gas, Petroleum Product Chauffeur (3rd Year)

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$27.75**

Supplemental Benefit Rate per Hour: **\$22.59**

Fuel Oil, Coal, Fuel Gas, Petroleum Product Chauffeur (2nd Year)

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$25.75**

Supplemental Benefit Rate per Hour: **\$22.59**

Fuel Oil, Coal, Fuel Gas, Petroleum Product Chauffeur (1st Year)

Effective Period: 7/1/2016 - 6/30/2017

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
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Wage Rate per Hour: **\$23.75**

Supplemental Benefit Rate per Hour: **\$22.59**

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.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

Martin Luther King Jr. Day

Lincoln's Birthday

Washington's Birthday

Memorial Day

Independence Day

Labor Day

Columbus Day

Election Day

Veteran's Day

Triple time the regular rate for work on the following holiday(s).

New Year's Day

Thanksgiving Day

Christmas Day

Paid Holidays

New Year's Day

Martin Luther King Jr. Day

Lincoln's Birthday

Washington's Birthday

Memorial Day

Independence Day

Labor Day

Columbus Day

Election Day

Veteran's Day

Thanksgiving Day

Christmas Day

Vacation

Less than 75 days worked.....no vacation.

75 days worked, but less than 110 days worked in a calendar year.....five (5) days the following year.

110 days or more worked in a calendar year.....ten (10) days the following year.

SICK LEAVE:

1 day sick leave earned for each 40 days worked in the preceding calendar year for a maximum of five (5) days per calendar year.

(Local #553)

LANDSCAPING AND GROUNDSKEEPING WORKER

Landscaper / Groundskeeper

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$18.23**

Supplemental Benefit Rate per Hour: **\$1.75**

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular hourly rate after 40 hours in any work week.

(Based on data from NYS Department of Labor Occupational Employment Statistics and US Department of Labor Bureau of Labor Statistics)

LOCKSMITH

Locksmith

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$20.39**

Supplemental Benefit Rate per Hour: **\$6.12**

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular hourly rate after 40 hours in any work week.

(Based on data from NYS Department of Labor Occupational Employment Statistics and US Department of Labor Bureau of Labor Statistics)

MAINTENANCE WORKER, MACHINERY

Mechanic

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$33.00**

Supplemental Benefit Rate per Hour: **\$6.12**

Overtime

Time and one half the regular rate after an 8 hour day.

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Time and one half the regular hourly rate after 40 hours in any work week.

(Based on data from NYS Department of Labor Occupational Employment Statistics and US Department of Labor Bureau of Labor Statistics)

MEDICAL WASTE REMOVAL

Driver

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$20.47**

Supplemental Benefit Rate per Hour: **\$11.32**

Helper

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$16.72**

Supplemental Benefit Rate per Hour: **\$11.32**

Tractor Trailer Driver

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$22.97**

Supplemental Benefit Rate per Hour: **\$11.32**

Overtime Description

Time and one half the regular hourly rate after an 8 hour day or after 40 hours in any work week. The seventh day of work in a workweek is paid at double time the regular hourly rate. Time and one half the regular hourly rate for work on a holiday plus days pay for below paid holidays.

Paid Holidays

President's Day
Memorial Day
Independence Day
Labor Day
Thanksgiving Day
Christmas Day

Vacation

1 year of service but less than five years.....ten (10) days
5 years of service but less than ten years.....fifteen (15) days
10 years of service.....sixteen (16) days
11 years.....seventeen (17) days
12 years.....eighteen (18) days
13 years.....nineteen (19) days
14 years.....twenty (20) days

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
\$230 PREVAILING WAGE SCHEDULE

20 years.....	twenty-one (21) days
21 years.....	twenty-two (22) days
22 years.....	twenty-three (23) days
23 years.....	twenty-four (24) days
24 years.....	twenty-five (25) days

Plus 5 Personal Days

(Local #813)

MOVER - OFFICE FURNITURE AND EQUIPMENT

Heavy and Tractor Trailer Truck Driver

Tractor-trailer combination or a truck with a capacity of at least 26,000 pounds Gross Vehicle Weight (GVW)

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$23.52**

Supplemental Benefit Rate per Hour: **\$5.37**

Light Truck Driver

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$18.17**

Supplemental Benefit Rate per Hour: **\$5.37**

Laborer and Freight, Stock, and Material Mover, Hand

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$15.52**

Supplemental Benefit Rate per Hour: **\$5.37**

Packer and Packager, Hand

Packs, wraps and labels office furniture and equipment and loads it onto dollies and into elevators.

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$11.87**

Supplemental Benefit Rate per Hour: **\$5.37**

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular hourly rate after 40 hours in any work week.

(Based on data from NYS Department of Labor Occupational Employment Statistics and US Department of Labor Bureau of Labor Statistics)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§230 PREVAILING WAGE SCHEDULE

REFUSE REMOVER

Refuse Remover

Effective Period: 7/1/2016 - 6/30/2017

Wage Rate per Hour: **\$28.32**

Supplemental Benefit Rate per Hour: **\$5.37**

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular hourly rate after 40 hours in any work week.

(Based on data from NYS Department of Labor Occupational Employment Statistics and US Department of Labor Bureau of Labor Statistics)

SECURITY GUARD (ARMED)

Security Guard (Armed)

Effective Period: 7/1/2016 - 12/31/2016

Wage Rate per Hour: **\$28.75**

Supplemental Benefit Rate per Hour: **\$5.48**

Supplemental Note: for new employee 0-30 days of employment - \$4.76; for new employee 31-120 days of employment - \$4.93; for new employee 121 days - 2 years of employment - \$5.04

Effective Period: 1/1/2017 - 6/30/2017

Wage Rate per Hour: **\$29.00**

Supplemental Benefit Rate per Hour: **\$5.66**

Supplemental Note: for new employee 0-30 days of employment - \$4.94; for new employee 31-120 days of employment - \$5.11; for new employee 121 days - 2 years of employment - \$5.22

Months of employment shall be defined as an Employee's length of service with the Employer or at the Facility, whichever is greater.

Overtime Description

If President's Day is not observed, then the employer may substitute another holiday not listed below. If an employer observes a holiday not listed they may substitute said holiday with one on the list.

A guard is eligible for Paid Holidays after one year of continuous employment.

A guard who works a holiday is paid the regular rate plus receives the paid holiday.

Supplemental Benefits shall be paid for each hour paid, up to forty (40) paid hours per week.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§230 PREVAILING WAGE SCHEDULE

Overtime

Time and one half the regular rate after an 8 hour day.
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
Christmas Day
Personal Day

Vacation

Months on payroll	Vacation with Pay
6	3 days
12	1 week
24	2 weeks
60	3 weeks
180	4 weeks
300	5 weeks

Sick Leave

Employees accrue paid sick leave at the rate of one (1) sick day for every six (6) months worked, up to a maximum of six (6) days a year.

(Local #32B/J)

SECURITY GUARD (UNARMED)

Security Guard (Unarmed) 0 - 6 months

Effective Period: 7/1/2016 - 12/31/2016

Wage Rate per Hour: \$14.00

Supplemental Benefit Rate per Hour: \$5.04

Supplemental Note: for new employee 0-30 days of employment - \$4.76; for new employee 31-120 days of employment - \$4.93

Effective Period: 1/1/2017 - 6/30/2017

Wage Rate per Hour: \$14.40

Supplemental Benefit Rate per Hour: \$5.22

Supplemental Note: for new employee 0-30 days of employment - 4.94; for new employee 31-120 days of employment - \$5.11

Security Guard (Unarmed) 7 - 12 months

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Effective Period: 7/1/2016 - 12/31/2016
Wage Rate per Hour: **\$14.30**
Supplemental Benefit Rate per Hour: **\$5.04**

Effective Period: 1/1/2017 - 6/30/2017
Wage Rate per Hour: **\$14.40**
Supplemental Benefit Rate per Hour: **\$5.22**

Security Guard (Unarmed) 13 - 18 months

Effective Period: 7/1/2016 - 12/31/2016
Wage Rate per Hour: **\$14.80**
Supplemental Benefit Rate per Hour: **\$5.04**

Effective Period: 1/1/2017 - 6/30/2017
Wage Rate per Hour: **\$15.25**
Supplemental Benefit Rate per Hour: **\$5.22**

Security Guard (Unarmed) 19 - 24 months

Effective Period: 7/1/2016 - 12/31/2016
Wage Rate per Hour: **\$15.30**
Supplemental Benefit Rate per Hour: **\$5.04**

Effective Period: 1/1/2017 - 6/30/2017
Wage Rate per Hour: **\$15.75**
Supplemental Benefit Rate per Hour: **\$5.22**

Security Guard (Unarmed) 25 - 30 months

Effective Period: 7/1/2016 - 12/31/2016
Wage Rate per Hour: **\$15.80**
Supplemental Benefit Rate per Hour: **\$5.48**

Effective Period: 1/1/2017 - 6/30/2017
Wage Rate per Hour: **\$16.25**
Supplemental Benefit Rate per Hour: **\$5.66**

Security Guard (Unarmed) 31 months or more

Effective Period: 7/1/2016 - 12/31/2016
Wage Rate per Hour: **\$16.45**
Supplemental Benefit Rate per Hour: **\$5.48**

Effective Period: 1/1/2017 - 6/30/2017
Wage Rate per Hour: **\$16.90**
Supplemental Benefit Rate per Hour: **\$5.66**

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Months of employment shall be defined as an Employee's length of service with the Employer or at the Facility, whichever is greater.

Overtime Description

If President's Day is not observed, then the employer may substitute another holiday not listed below. If an employer observes a holiday not listed they may substitute said holiday with one on the list.

A guard is eligible for Paid Holidays after one year of continuous employment.

A guard who works a holiday is paid the regular rate plus receives the paid holiday.

Supplemental Benefits shall be paid for each hour paid, up to forty (40) paid hours per week.

Overtime

Time and one half the regular rate after an 8 hour day.

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
- Christmas Day
- Personal Day

Vacation

Months on payroll	Vacation with Pay
6	3 days
12	1 week
24	2 weeks
60	3 weeks
180	4 weeks
300	5 weeks

Sick Leave

Employees accrue paid sick leave at the rate of one (1) sick day for every six (6) months worked, up to a maximum of six (6) days a year.

(Local #32B/J)

WINDOW CLEANER

Window Cleaner

Effective Period: 7/1/2016 - 12/31/2016

Wage Rate per Hour: **\$28.10**

Supplemental Benefit Rate per Hour: **\$11.00**

Effective Period: 1/1/2017 - 6/30/2017

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Wage Rate per Hour: **\$28.70**
Supplemental Benefit Rate per Hour: **\$11.56**

Power Operated Scaffolds, Manual Scaffolds, and Boatswain Chairs

Effective Period: 7/1/2016 - 12/31/2016
Wage Rate per Hour: **\$30.66**
Supplemental Benefit Rate per Hour: **\$11.00**

Effective Period: 1/1/2017 - 6/30/2017
Wage Rate per Hour: **\$31.33**
Supplemental Benefit Rate per Hour: **\$11.56**

Window Cleaner Apprentice (0 - 3 months)

Effective Period: 7/1/2016 - 12/31/2016
Wage Rate per Hour: **\$20.73**
Supplemental Benefit Rate per Hour: None

Effective Period: 1/1/2017 - 6/30/2017
Wage Rate per Hour: **\$21.24**
Supplemental Benefit Rate per Hour: None

Window Cleaner Apprentice (4 - 7 months)

Effective Period: 7/1/2016 - 12/31/2016
Wage Rate per Hour: **\$22.41**
Supplemental Benefit Rate per Hour: **\$11.00**

Effective Period: 1/1/2017 - 6/30/2017
Wage Rate per Hour: **\$22.96**
Supplemental Benefit Rate per Hour: **\$11.56**

Window Cleaner Apprentice (8 - 11 months)

Effective Period: 7/1/2016 - 12/31/2016
Wage Rate per Hour: **\$23.75**
Supplemental Benefit Rate per Hour: **\$11.00**

Effective Period: 1/1/2017 - 6/30/2017
Wage Rate per Hour: **\$24.34**
Supplemental Benefit Rate per Hour: **\$11.56**

Window Cleaner Apprentice (12 - 15 months)

Effective Period: 7/1/2016 - 12/31/2016
Wage Rate per Hour: **\$25.12**
Supplemental Benefit Rate per Hour: **\$11.00**

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§230 PREVAILING WAGE SCHEDULE

Effective Period: 1/1/2017 - 6/30/2017
Wage Rate per Hour: \$25.74
Supplemental Benefit Rate per Hour: \$11.56

Window Cleaner Apprentice (16 - 17 months)

Effective Period: 7/1/2016 - 12/31/2016
Wage Rate per Hour: \$26.47
Supplemental Benefit Rate per Hour: \$11.00

Effective Period: 1/1/2017 - 6/30/2017
Wage Rate per Hour: \$27.12
Supplemental Benefit Rate per Hour: \$11.56

Months of employment shall be defined as an Employee's length of service with the Employer or at the Facility, whichever is greater.

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
Martin Luther King Jr. Day
President's Day
Good Friday
Memorial Day
Independence Day
Labor Day
Columbus Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day
Personal Day

Vacation

After 7 months but less than 1 year of service.....five (5) days
1 year but less than 5 years of service.....ten (10) days
5 years of service but less than 15 years of service.....fifteen (15) days
15 years of service but less than 21 years of service.....twenty (20) days
21 years.....twenty-one (21) days
22 years.....twenty-two (22) days
23 years.....twenty-three (23) days
24 years.....twenty-four (24) days
25 years or more of service.....twenty-five (25) days
Plus 1 day per year for medical visit

SICK LEAVE:

10 days after one year worked. Unused sick days to be paid in cash.

(Local #32 B/J)

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Leonard A. Mancusi
SENIOR ASSISTANT COMPTROLLER

THE CITY OF NEW YORK
OFFICE OF THE COMPTROLLER
1 CENTRE STREET ROOM 1120
NEW YORK, N.Y. 10007-2341

TELEPHONE: (212) 669-3622
FAX NUMBER: (212) 669-8499

ALAN G. HEVESI
COMPTROLLER

MEMORANDUM

November 6, 2000

To Agency Chief Contracting Officers

From: Leonard A. Mancusi

Re: Security at Construction Sites

Prior to the enactment of Administrative Code §6-109, security guards on construction sites were not subject to prevailing wages. Security guards under the New York State labor law are covered under §230 which provides that prevailing wages are to be paid for security guards in existing buildings. §6-109 of the Administrative Code which was enacted in 1996 closed this loophole by including all security guards working pursuant to a city contract as a prevailing wage trade.

Although some construction contract boilerplate language has been amended to include §6-109, sub-contractors performing security services have advised us that they were not aware of this provision and, since traditionally, security guards were not a covered trade on construction sites, and they were not advised by a prime contractor that they would have to pay prevailing wages, they have not been doing so.

To avoid the possibility of issuing stop payments against prime contractors for the failure of their security service sub-contractors to pay

prevailing wages, we suggest that you write to all your existing security guard sub-contractors and their primes and in the future, upon approval of a security guard sub-contractor, advise the contractors of their obligation to pay prevailing wages under §6-109 of the Administrative Code.

As always, your cooperation is appreciated.

LAM:er
ACCO.SECURITY AT SITES



**Department of
Design and
Construction**

**INFRASTRUCTURE DIVISION
BUREAU OF DESIGN**

VOLUME 2 OF 3

Contractor.

Dated _____, 20____

**APPROVED AS TO FORM
CERTIFIED AS TO LEGAL AUTHORITY**

Acting Corporation Counsel

Dated _____, 20____



**INFRASTRUCTURE DIVISION
BUREAU OF DESIGN**

VOLUME 2 OF 3

PROJECT ID: HWPLZ011K

RECONSTRUCTION OF ZION PLAZA

INCLUDING CURB AND SIDEWALK RECONSTRUCTION, STREET LIGHTING, TRAFFIC SIGNALS, AND BIOSWALE WORK

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

JR Cruz Corp.

Contractor.

Dated December 21, 20 17

APPROVED AS TO FORM
CERTIFIED AS TO LEGAL AUTHORITY

Acting Corporation Counsel

Dated September 26, 20 16



**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

VOLUME 3 OF 3

**SCHEDULE A
SPECIFICATIONS AND
REVISIONS TO STANDARD SPECIFICATIONS**

FOR FURNISHING ALL LABOR AND MATERIALS NECESSARY AND
REQUIRED FOR:

PROJECT ID: HWPLZ011K

RECONSTRUCTION OF ZION PLAZA

**INCLUDING CURB AND SIDEWALK RECONSTRUCTION, STREET
LIGHTING, TRAFFIC SIGNALS, AND BIOSWALE WORK**

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

FOR THE DEPARTMENT OF TRANSPORTATION
PREPARED BY

PARSONS

JANUARY 14, 2016



97-016

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
3. NYCDOT Division of Street Lighting Specifications
4. NYCDOT Division of Street Lighting Standard Drawings
5. NYCDOT Standard Specifications for Traffic Signals
6. NYCDOT Standard Drawings for Traffic Signals

The following reference documents for New York City Department of Environmental Protection (NYCDEP) are available on-line at:

<http://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. Waqar Ahmad, Tel. (718) 391-2056

1. NYCDEP Standard Sewer and Water Main Specifications, July 1, 2014
2. NYCDEP Instructions for Concrete Specifications, Jan. 92
3. NYCDEP General Specification 11-Concrete, November 1991
4. NYCDEP Sewer Design Standards, (September 2007) Revised January 2009

The following reference documents for New York City Department of Environmental Protection (NYCDEP) are available on-line at:

<http://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. Standard Design and Guidelines for Green Infrastructure Practices, latest version, available only on-line at:
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

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

VOLUME 3 OF 3
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I - PAGES	NEW SECTIONS	I-1 to I-188
S - PAGES	SPECIAL PROVISIONS	S-1 to S-15
SW - PAGES	SEWER AND WATER MAIN SPECIFICATIONS	SW-1 to SW-5
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(NO TEXT ON THIS PAGE)

SCHEDULE A**(GENERAL CONDITIONS TO CONSTRUCTION CONTRACT
(INCLUDING GENERAL CONDITIONS RELATED TO ARTICLE 22 – INSURANCE)****PART I. REQUIRED INFORMATION**

<p align="center"><u>INFORMATION FOR BIDDERS SECTION 26 BID SECURITY</u></p> <p>The Contractor shall obtain a bid security in the amount indicated to the right.</p>	<p>Required provided the TOTAL BID PRICE set forth on the Bid Form is \$1,000,000. or more.</p> <p>Certified Check: 2% of Bid Amount or Bond: 10% of Bid Amount</p>
<p align="center"><u>INFORMATION FOR BIDDERS SECTION 26 PERFORMANCE AND PAYMENT BONDS</u></p> <p>The Contractor shall obtain performance and payment bonds in the amount indicated to the right.</p>	<p>Required for contracts in the amount of \$1,000,000 or more.</p> <p>Performance Security and Payment Security shall each be in an amount equal to 100% of the Contract Price.</p>
<p align="center"><u>CONTRACT ARTICLE 14 DATE FOR SUBSTANTIAL COMPLETION</u></p> <p>The Contractor shall substantially complete the Work in the number of calendar days indicated to the right.</p>	<p>See Page SA-4</p>
<p align="center"><u>CONTRACT ARTICLE 15 LIQUIDATED DAMAGES</u></p> <p>If the Contractor fails to substantially complete the Work within the time fixed for substantial completion plus authorized time extensions or if the Contractor, in the sole determination of the Commissioner, has abandoned the Work, the Contractor shall pay to the City the amount indicated to the right.</p>	<p>\$900. for each consecutive calendar day over substantial completion time</p>
<p align="center"><u>CONTRACT ARTICLE 17. SUB-CONTRACTOR</u></p> <p>The Contractor shall not make subcontracts totaling an amount more than the percentage of the total Contract price indicated to the right.</p>	<p>Not to exceed <u>50</u> % of the Contract price</p>
<p align="center"><u>CONTRACT ARTICLE 21. RETAINAGE</u></p> <p>The Commissioner shall deduct and retain until the substantial completion of the Work the percent value of the Work indicated to the right.</p>	<p><u>5</u> % of the value of the Work</p>

<p align="center"><u>CONTRACT ARTICLE 22.</u></p> <p align="center"><u>(Per Directions Below)</u></p>	<p>See pages SA-5 through SA-13</p>
<p align="center"><u>CONTRACT ARTICLE 24.</u> <u>DEPOSIT GUARANTEE</u></p> <p>As security for the faithful performance of its obligations, the Contractor, upon filing its requisition for payment on Substantial Completion, shall deposit with the Commissioner a sum equal to the percentage of the Contract price indicated to the right.</p>	<p>1% of Contract price</p>
<p align="center"><u>CONTRACT ARTICLE 24.</u> <u>PERIOD OF GUARANTEE</u></p> <p>Periods of maintenance and guarantee other than the period set forth in Article 24.1 are indicated to the right.</p>	<p>Eighteen (18) Months, excluding Trees Twenty-four (24) Months for Tree Planting</p>
<p align="center"><u>CONTRACT ARTICLE 74.</u> <u>STATEMENT OF WORK</u></p> <p>The Contractor shall furnish all labor and materials and perform all Work in strict accordance with the Contract Drawings, Specifications, and all Addenda thereto.</p>	<p align="center">See Contract Article 74</p>
<p align="center"><u>CONTRACT ARTICLE 75.</u> <u>COMPENSATION TO BE PAID TO CONTRACTOR</u></p> <p>The City shall pay and the Contractor shall accept in full consideration for the performance of the Contract, subject to additions and deductions as provided in Contract Article 75, this said sum being the amount at which the Contract was awarded to the Contractor at a public letting thereof, based upon the Contractor's bid for the Contract.</p>	<p align="center">See Contract Article 75</p>
<p align="center"><u>CONTRACT ARTICLE 78.</u> <u>PARTICIPATION BY MINORITY-OWNED AND WOMEN-OWNED BUSINESS ENTERPRISES IN CITY PROCUREMENT</u></p>	<p>See M/WBE Utilization Plan in the Bid Booklet</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 545 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.

<p style="text-align: center;"><u>STANDARD HIGHWAY SPECIFICATIONS</u> <u>SECTION 6.40</u> <u>LIQUIDATED DAMAGES FOR</u> <u>ENGINEER'S FIELD OFFICE</u></p> <p>If the Contractor fails to satisfactorily provide the field office and all equipment specified in Section 6.40 - Engineer's Field Office, and/or if a cited deficiency exceed seventy two (72) hours after notice from the Engineer in writing, or is permitted to recur, liquidated damages will be assessed in the amount specified herein for each subsequent calendar day or part thereof that a cited deficiency resulting in nonpayment, as described in Section 6.40.5, is not corrected.</p>	<p>\$ <u>250.00</u> for each calendar day of deficiency</p>
<p style="text-align: center;"><u>STANDARD HIGHWAY SPECIFICATIONS</u> <u>SECTION 6.70</u> <u>LIQUIDATED DAMAGES FOR</u> <u>MAINTENANCE AND PROTECTION OF TRAFFIC</u></p>	<p>\$ <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;"><u>STANDARD HIGHWAY SPECIFICATIONS</u> <u>SECTION 7.13</u> <u>LIQUIDATED DAMAGES FOR</u> <u>MAINTENANCE OF SITE</u></p> <p>If the Contractor fails to comply, within three (3) consecutive hours after written notice from the Engineer, with the requirements of Section 7.13 - Maintenance of Site, the Contractor shall pay to the City of New York, until such notice has been complied with or rescinded, the sum specified above per calendar day, for each instance of such failure, as liquidated damages and not as a penalty, for such default.</p>	<p>\$ <u>250.00</u> for each calendar day, for each occurrence</p>

(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 X in a □ to left will be required under this contract

Types of Insurance (per Article 22 in its entirety, including listed paragraph)	Minimum Limits and Special Conditions
■ Commercial General Liability Art. 22.1.1	The minimum limits shall be \$ <u>3,000,000</u> per occurrence and \$ <u>6,000,000</u> per project aggregate applicable to this Contract . Additional Insureds: 1. City of New York, including its officials and employees, with coverage at least as broad as ISO Form CG 20 10 and CG 20 37, 2. All person(s) or organization(s), if any, that Article 22.1.1(b) of the Contract requires to be named as Additional Insured(s), with coverage at least as broad as ISO Form CG 20 26. The Additional Insured endorsement shall either specify the entity’s name, if known, or the entity’s title (e.g., Project Manager),

<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Workers' Compensation Art. 22.1.2 <input checked="" type="checkbox"/> Disability Benefits Insurance Art. 22.1.2 <input checked="" type="checkbox"/> Employers' Liability Art. 22.1.2 <input type="checkbox"/> Jones Act Art. 22.1.3 <input type="checkbox"/> U.S. Longshoremen's and Harbor Workers Compensation Act Art. 22.1.3 	<p>Workers' Compensation, Employers' Liability, and Disability Benefits Insurance: Statutory per New York State law without regard to jurisdiction.</p> <p>Note: The following forms are acceptable: (1) New York State Workers' Compensation Board Form No. C-105.2, (2) State Insurance Fund Form No. U-26.3, (3) New York State Workers' Compensation Board Form No. DB-120.1 and (4) Request for WC/DB Exemption Form No. CE-200. The City will not accept an ACORD form as proof of Workers' Compensation or Disability Insurance.</p> <p>Jones Act and U.S. Longshoremen's and Harbor Workers' Compensation Act: Statutory per U.S. Law.</p> <p><input type="checkbox"/> Additional Requirements:</p> <p>(1) NYCT "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 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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<input type="checkbox"/> Builders' Risk	Art. 22.1.4	<p>100 % of total value of Work</p> <p>Contractor the Named Insured; the City both an Additional Insured and one of the loss payees as its interests may appear.</p> <p>If the Work does not involve construction of a new building or gut renovation work, the Contractor may provide an installation floater in lieu of Builders Risk insurance.</p> <p>Note: Builders Risk Insurance may terminate upon Substantial Completion of the Work in its entirety.</p>
<input checked="" type="checkbox"/> Commercial Auto Liability	Art. 22.1.5	<p>\$ <u>2,000,000</u> per accident combined single limit</p> <p>If vehicles are used for transporting hazardous materials, the Contractor shall provide pollution liability broadened coverage for covered vehicles (endorsement CA 99 48) as well as proof of MCS 90</p> <p>Additional Insureds:</p> <p>(1) City of New York, including its officials and employees, and</p>

<input type="checkbox"/> Contractors Pollution Liability Art. 22.1.6	<p>\$ <u>5,000,000</u> per occurrence \$ <u>5,000,000</u> aggregate</p> <p>Additional Insureds: 1. City of New York, including its officials and employees, and 2. _____ 3. _____</p>
<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>

<p>[OTHER] Art. 22.1.8</p> <p><input type="checkbox"/> Railroad Protection Liability Policy</p> <p>(ISO-RIMA or equivalent form) approved by Permitter covering the work to be performed at the designated site and affording protection for damages arising out of bodily injury or death, physical damage to or destruction of property, including damage to the Insured's own property and conforming to the following:</p> <ul style="list-style-type: none"> • Policy Endorsement CG 28 31 - Pollution Exclusion Amendment is required to be endorsed onto the policy when environmental-related work and/or exposures exist. • Indicate the Name and address of the Contractor to perform the work, the Contract # and the name of the railroad property where the work is being performed and the Agency Permit. • Evidence of Railroad Protective Liability Insurance, must be provided in the form of the <u>Original Policy. A detailed Insurance Binder (ACORD or Manuscript Form) will be accepted pending issuance of the Original Policy, which must be provided within 30 days of the Binder Approval.</u> 	<p>\$ <u>2,000,000</u> per occurrence</p> <p>\$ <u>6,000,000</u> annual aggregate</p> <p>Named Insureds:</p> <p>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.</p>
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<p>[OTHER] Art. 22.1.8</p> <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>	
<p>[OTHER] Art. 22.1.8</p> <p><input checked="" type="checkbox"/> Engineer's Field Office</p> <p>Section 6.40, Standard Highway Specifications</p>	<p>Fire insurance, extended coverage and vandalism, malicious mischief and burglary, and theft insurance coverage in the amount of <u>\$40,000</u></p>
<p>[OTHER] Art. 22.1.8</p> <p><input type="checkbox"/> The Following Additional Insurance Must Be Provided:</p> <p>Umbrella/Excess Liability Insurance - The Contractor shall provide Umbrella/Excess Liability Insurance in the minimum amount of \$10,000,000 per Occurrence and \$10,000,000 in Aggregate. The policy terms and condition should be at least as broad as the underlying policies. The underlying policies should comply with the insurance provision as outlined by the contract. Defense cost should be in addition to the limit of liability. The City of New York, including its officials and employees, should be included as additional insured as respects to the noted project.</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.

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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R - PAGES

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

NOTICE

THE NEW YORK CITY DEPARTMENT OF TRANSPORTATION STANDARD HIGHWAY SPECIFICATIONS, DATED AUGUST 1, 2015, (WHICH INCLUDE, BUT ARE NOT LIMITED TO, "GENERAL CONDITIONS", "BASIC MATERIALS OF CONSTRUCTION", "COMBINED MATERIALS OF CONSTRUCTION", "CONSTRUCTION METHODS", "INSPECTION AND TESTING OF MATERIALS, ADJUSTMENTS FOR DEFICIENCIES, AND MAINTENANCE", AND "SUPPLEMENTAL CONSTRUCTION METHODS"), AS REVISED HEREIN (R-PAGES) AND BY ADDENDA ISSUED PRIOR TO THE OPENING OF BIDS, SHALL APPLY TO AND BECOME A PART OF THE CONTRACT.

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

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

(NO TEXT ON THIS PAGE)

1. AMENDMENTS TO STANDARD HIGHWAY SPECIFICATIONS, VOLUME I

The following amendments to the Contract Requirements shall become a part of and apply to the contract:

(NO TEXT)

2. AMENDMENTS TO STANDARD HIGHWAY SPECIFICATIONS, VOLUME II

(NO TEXT)

NOTICE

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**SECTION 4.08 ABM
CONCRETE CURB, MOUNTABLE (18" DEEP)**

4.08ABM.1. DESCRIPTION

Mountable Concrete Curb shall be made of concrete and be constructed to the dimensions and at the locations shown on the Contract Drawings and where directed by the Engineer.

4.08ABM.2. MATERIALS AND METHODS

All materials and methods shall be done in accordance with the applicable requirement of the Section 4.08, except that the curb shall be mountable to provide a smooth transition between the sidewalk and the roadway as shown on the Contract Drawings. Shape of the curb and its construction shall be as shown on the Contract Drawings. The length and shape of transitional curbs between standard and mountable curbs shall be 1'-6" in length and of a shape approved by the Engineer.

4.08ABM.3. MEASUREMENT

The quantity to be measured for payment shall be the combined length of both mountable concrete curb and its transitional curb, constructed, complete, in place, as required, measured along the top of the exposed face of curb, and adjusted in accordance with Section 5.04 of the Standard Highway Specifications.

4.08ABM.4. PRICE TO COVER

The contract price per linear foot of Mountable Concrete Curb, of the depth specified, shall cover the cost of all labor, materials, equipment, insurance, and incidentals required to construct the curb complete in place, including, but not limited to, excavation (other than rock excavation) and backfilling, in full compliance with the requirements of the specifications, to furnish such samples for testing and to provide such testing equipment, laboratory space and facilities, as may be required, and the cost of maintaining the curb in good condition as specified in Section 5.05 of the Standard Highway Specifications.

When the proposed adjacent sidewalk is designated to be pigmented, no additional payment will be made for the cost of pigmenting the concrete curb to match the proposed adjacent pigmented sidewalk in color.

Payment will be made under:

Item No.	Item	Pay Unit
4.08 ABM	CONCRETE CURB, MOUNTABLE (18" DEEP)	L.F.

**SECTION 6.18 DA26
DECORATIVE STEEL PICKET FENCE, 2'-6" HEIGHT**

6.18 DA26.1. DESCRIPTION. Under this Section, the Contractor shall furnish and erect Decorative Steel Picket Fence, 2'-6" Height where shown on the plans and in accordance with the NYC Department of Parks and Recreation Standard Drawing TYLA/146-R8, Sheet No. 35, 2'-6", 4'-0" STEEL FENCE & WICKET FENCE, the specifications, and directions of the Engineer.

6.18 DA26.2. MATERIAL. Fence shall be constructed of solid bars, posts, and rails of the sizes shown on the plans, unless specifically noted to be lightweight. All material shall conform to Specifications American Society for Testing and Materials (ASTM) A36.

Grout: Grout for fence posts shall be a non-shrink, cement based grout as approved by the Engineer.

Sealant: Sealant around fence posts shall be one part polyurethane, elastomeric adhesive such as:

1. Sonneborn's Ultra Sealant, as manufactured by ChemRex, 889 Valley Park Dr Shakopee, MN 55379-1854; Ph: (763) 496-6344; Email- garyb@chemrex.com
2. Sikaflex-1a, as manufactured by Sika Corporation, 201 Polito Ave Lyndhurst, NJ; Ph:(800) 933-7452;
https://usa.sika.com/en/group/SikaCorp/information_request/locations.html
3. DAP Premium Polyurethane Construction Adhesive Sealant, as manufactured by DAP Products Inc, Baltimore, MD. Ph: (410)675-2100
4. Or approved equivalent.

6.18 DA26.3. FABRICATION. Fence shall be fabricated in strict accordance with the plans, standard drawings, and approved shop drawings. Posts and rails shall be formed into panels of the shapes shown on the plans and joints completely welded with welds of proper size and shape. All welds shall be ground smooth to a neat finish. Connections shall be provided as indicated on the plans and approved shop drawings. Welding shall conform to the requirements of American Welding Society (AWS.).

Posts and pickets shall in all cases be truly vertical. Rails and bars shall be parallel to grade as shown on the plans. Panels shall be curved as required by the work.

6.18 DA26.4. PAINTING. Fence shall receive three (3) coats of paint. The first coat shall be shop applied; the second and third coat shall be field applied. Immediately prior to painting, all surfaces of fences shall be made thoroughly free of debris. All surfaces that are rust free shall be treated in accordance with Steel Structures Painting Council (SSPC) specification SP-1, Solvent Cleaning. Treatment shall be performed with a solvent such as mineral spirits, xylol, or turpentine to remove all dirt, grease, and foreign matter. Surfaces that show evidence of scale and rust shall be cleaned in accordance with SSPC specification SP-2, Hand Tool Cleaning, a method generally confined to wire brushing, sandpaper, hand scrapers, or hand impact tools, or in accordance with SSPC specification SP-3, Power Tool Cleaning, a method generally confined to power wire brushes, impact tools, power sanders, and grinders in order to achieve a sound substrate. After the fences have been cleaned and prepared, they shall be painted as follows:

- (A) First Coat (Shop Applied): Primer shall be a fast drying (within 2-1/2 hours), 81%+2% weight solids, low Volatile Organic Compounds (VOC), rust inhibiting, modified alkyd metal primer with a red oxide color, and a dry film thickness of 3 to 4 mils. Paint requires two and a half (2-1/2) hours drying time before re-coating (with alkyds). Performance shall meet or exceed the standards of Federal Specification TT-P-86H, Type III and TT-P-664D, and shall be compatible with the second and third coats of paint.
- (B) Second Coat and Third Coat (Field Applied): Sherwin Williams Steel Master 9500 Silicon Alkyd #B56-300, Black, Carboline Carbocoat 30R, Keeler & Long Kolor-Sil Enamel KLF Series or approved equivalent. Topcoat shall be a VOC compliant silicon alkyd high gloss coating having a dry film thickness of 2-4 mils (each coat). Paint requires eighteen (18) hours drying time at 77 degrees F.

All paints shall be applied when minimum ambient air temperature is not less than forty-five (45) degrees F. and rising and when the surfaces to be painted are moisture free. No painting will be allowed below the minimum ambient air temperature. In addition, no painting will be allowed below the temperature at which moisture will condense on surfaces.

6.18 DA26.5. INSTALLATION.

The fence shall be erected in holes that have been formed in the concrete to receive them. After the posts have been set in place and properly supported to hold them in line and grade, the annular space shall be filled with an approved non-shrink, cementitious grout. The grout shall be flush with the concrete curb. After the grout has cured, the Contractor shall install the polyurethane sealant around the fence post. Sealer shall be applied in strict accordance with the manufacturer's instructions, and shall be tooled in as required to fill and seal the hole and form a one-quarter inch (1/4") wash away from the post.

Note: All gypsum (Calcium Sulfate, CaSO₄) based grout will be rejected.

Any fence not set plumb and true to line and grade shall be removed and replaced at the Contractor's expense. The Contractor shall maintain the fence during the life of the contract and shall repair/replace all members that are disturbed, damaged, or destroyed.

6.18 DA26.6. SUBMITTALS. All submittals shall be in accordance with the requirements of the General Provisions, Subsection 1.06.13. Shop and Working Drawings. The Contractor shall submit for the approval of the Engineer finished samples of parts of the fence. The workmanship and finish of the final product shall be equal to those approved samples.

6.18 DA26.7. SAMPLES. The Contractor shall submit for the approval finished samples of parts of the fence.

6.18 DA26.8. PAINT SUBSTITUTION. A written request for paint substitution must be submitted to the Engineer. The Contractor shall submit this request, along with manufacturer's data sheets for approval, a minimum of two (2) weeks prior to the intended date of paint application. All paint substitutes must be approved in writing prior to use.

6.18 DA26.9. METHOD OF MEASUREMENT. The quantity of steel bar picket fence to be paid for shall be the number of linear feet of steel bar picket fence actually erected at the site, complete, to the satisfaction of the Engineer.

6.18 DA26.10. PRICE TO COVER. The contract price bid per linear foot shall cover the cost of all labor, materials, plant, equipment, Insurance and Incidentals required to furnish and erect

fence, including but not limited to painting and all incidental work and expenses necessary to complete the work in accordance with the plans, the Standard Drawings, the specifications, and the directions of the Engineer.

Payment will be made under:

Item No.	Item	Pay Unit
6.18 DA26	DECORATIVE STEEL BAR PICKET FENCE, 2'-6" HEIGHT	L.F.

**SECTION 6.27 DBH
DEMOLITION, REMOVAL AND DISPOSAL OF BENCHES**

6.27 DBH.1. DESCRIPTION. Under this Section, the Contractor shall furnish all labor, material, equipment, insurance, and necessary incidentals required for the demolition, removal and disposal, away from the site, of benches in accordance with the Contract Drawing, the specifications and the directions of the Engineer.

6.27 DBH.2. METHODS. All work shall be done in accordance with the applicable requirement of the Section 6.27 - Demolition of Structures, of the Standard Highway Specifications, and as amended below.

BENCHES. Benches marked for removal under Item No. 6.27 DBH, shall be first separated their anchor bolts. The benches shall then be removed and disposed of away from the site and then the bench foundations shall be excavated and disposed of as directed by the Engineer. All excavations shall be backfilled to the satisfaction of the Engineer, at no additional cost to the City.

6.27 DBH.3. MEASUREMENT.

The quantities to be measured for payment under Demolition, Removal and Disposal of BENCHES shall be the actual number of each removed from the site, to the satisfaction of the Engineer.

6.27 DBH.4. PRICES TO COVER.

The unit prices bid for

ITEM NO. 6.27 DBH DEMOLITION, REMOVAL AND DISPOSAL OF BENCHES

shall be a unit price for each and shall cover the cost of furnishing all labor, materials, plant, equipment, insurance and necessary incidentals required to complete the work; all in accordance with the contract drawings, the specifications and the directions of the Engineer.

Payment will be made under:

Item No.	Item	Pay Unit
6.27 DBH	DEMOLITION, REMOVAL AND DISPOSAL OF BENCHES	EACH

SECTION 6.79 AG
4" DUCTILE IRON PIPE CONNECTION

6.79.AG 1. INTENT. This section describes the construction of 4" ductile iron pipe connections between basins, inlets, sewers or manholes, and dry wells.

6.79.AG 2. DESCRIPTION.

- (A) Ductile iron pipe connections shall be constructed with internally locked "Push-on" joints not requiring thrust blocks or tie rods, and laid on a compacted layer of Broken Stone, or encased in concrete where specified.
- (B) Pipes shall be of the nominal inside diameter shown or specified.
- (C) Dimensions of concrete encasement shall be as shown on the plans.

6.79.AG 3. MATERIALS.

- (A) Ductile Iron Pipe shall be of the various sizes specified, shall be epoxy lined and in compliance with the requirements of the New York City Department of Environmental Protection, Standard Sewer and Water Main Specifications, dated July 1, 2014, Section 21.06.
- (B) Broken Stone shall be hard, roughly cubical in shape, unweathered stone uniformly graded from 1/4" to 3/4" in diameter, and shall conform to commercial 1/4" to 3/4" stone.
- (C) All joints for Ductile Iron Pipe shall be "Push-On" joint types, meeting the requirements of ANSI Specification A21.11, latest revision.
 - 1) The joints shall be internally locked, not requiring thrust blocks or tie rods, and shall be made in accordance with manufacturer's instructions for assembling the type of joint furnished.
 - 2) Push-on joints shall be the Super Bell-Tite Joint of Amstead Industries, the Tyton Joint of U.S. Pipe and Foundry Company, the Fastite Joint of the American Cast Iron Company, or such other joint as may be approved as equivalent by the Engineer. For each bell, there shall be furnished a rubber gasket.
- (D) Concrete shall comply with the requirements of Section 3.05 of New York City Department of Transportation (NYCDOT) Highway Specifications.; Class B-32; Type IIA Portland cement; Type 1A sand, and Type 1, Grade B, or Type 2, Size No. 57 coarse aggregate.
- (E) Mortar for joints shall comply with the requirements of Section 3.07 of NYCDOT Highway Specifications, Type 1, Mortar, except that the proportions shall be one (1) part of cement to one and one-half (1-1/2) parts of sand and that the ingredients may be mixed by hand.

6.79.AG 4. METHODS.**(A) Excavation**

Excavation for construction of pipe connections, on a nine (9) inch thick broken stone base, or encased in concrete where specified, shall be made to the widths and depths required in accordance with the Standard Sewers Specifications of the New York City Department of Environmental Protection. No pipe or the broken stone therefore, or concrete for pipe encasement, shall be laid or placed until the subgrade of the trench shall have been tested and found correct.

(B) Bedding

Unless otherwise directed, the Ductile Iron Pipe Connection shall be laid on a nine (9) inch thick compacted layer of Broken Stone. The nine (9) inch thick layer of Broken Stone shall be placed on the subgrade of the trench for its full width. The subgrade must be prepared to the proper grade so that the ductile iron pipe may be placed on the broken stone base accurately to line and grade in agreement with the plans, specifications and as directed by the Engineer. Broken Stone shall also be placed around the pipe to a depth of one-half (1/2) the outer diameter of the pipe and for the full width of the trench. The rest of the trench shall be backfilled and compacted as specified and directed by the Engineer.

(C) Laying

The pipe shall be laid with male ends toward the outlet. All pipes shall be laid true to line and grade, tightly fitted together and matched so that when laid in the work they will form a drain with a smooth and uniform invert. Unless a shorter length of pipe is required or otherwise permitted, not less than twenty-four (24) feet of piping shall be laid in one operation and the trench for each basin connection shall be fully excavated for its entire length before any pipes are laid therein.

During the progress of the work the interior of the connections shall be cleared of all foreign matter and the exposed ends of pipe shall be provided with approved temporary covers fitted to the pipe so as to exclude such materials. Unconnected dead ends of pipe shall be closed with approved tile or precast concrete plugs or with hand tightening (wing nut type) expandable plugs as manufactured by O.R.H.A. Industries or Jones Manufacturing Co., or approved equal, so as to provide a watertight seal. The threads are to be greased prior to tightening to ensure a proper seal without stripping.

(D) Joints

All joints for Ductile Iron Pipe shall be "Push-On" joints.

(E) Wyes and Tees

The Contractor shall provide ductile iron pipe Wye or Tee connections as required by the field conditions and as directed by the Engineer.

(F) Drainage inlets shall be installed as shown on the plans and in accordance with manufacturer's instructions.

Clear interior of installed piping and structures of dirt and other superfluous material as work progresses. Maintain swab or drag in piping and pull past each joint as it is completed. Place plug in ends of uncompleted pipe at end of each day or when work stops.

After installing drainage course on top of piping, test drain piping with water to ensure free flow before backfilling. Remove obstructions, replace damaged components, and repeat test until results are satisfactory and approved by the Engineer.

(G) Damaged Pipe

Pipe damaged from handling or any cause whatsoever, whether in or out of the trench, shall be replaced and removed from the site of the work by and at the sole expense of the Contractor.

(H) Field Cutting

Ductile iron pipe shall be cut only by means of abrasive saws, hack saws, wheel type cutters, milling type cutters or as approved by the Engineer. The use of "squeeze" type pipe cutters and cutting torches will not be permitted. The use of diamond points and dog chisels will not be permitted. The outside of the cut end shall be beveled about one-quarter (1/4) inch at an angle of about thirty (30) degrees all around the pipe, with a coarse file or a portable grinder.

(I) Fitting Into Reinforced Concrete Structures

Pipe connections shall not enter reinforced concrete structures less than twelve (12) inches from the top or bottom of the structure. The ends of pipes which enter the reinforced concrete structure shall be neatly cut to fit the inner face of the structure. When directed, such cutting shall be done before the pipes are built in.

Wherever the proposed connection is to connect with an existing structure in which there is a branch pipe which is damaged or of unsuitable size or in improper position, such pipe shall be removed and be replaced with a pipe of suitable size or be reset in the proper position.

(J) Backfilling

Immediately after the Engineer has inspected and approved the pipe laid, the trench shall be backfilled.

6.79.AG 5. MEASUREMENT. The quantity of Ductile Iron Pipe Connections to be measured for payment shall be the number of linear feet of pipe incorporated in the work, complete, measured in place along its axis between the inner faces of the structures or pipe connected, subject to adjustment in accordance with Section 5.04 of NYCDOT Highway Specifications.

6.79.AG 6. PRICE TO COVER. The contract price per linear foot for Ductile Iron Pipe Connection shall cover the cost of all labor, materials, equipment, insurance, and incidentals required to furnish and incorporate in the work, complete, in place, all ductile iron pipe required including, but not limited to, excavation of all materials of whatever nature encountered, including ledge rock (except where there is a separate contract price for Rock Excavation), furnishing and installing broken stone base, joint materials, special pipes where required, inlets, cleanouts, bulkheads, temporary cover, trimming, fitting and building the pipe into concrete or

masonry, connections to sewers, sheeting, bracing and backfilling necessary to complete this work; all in accordance with the plans and specifications, and as directed by the Engineer.

Payment will be made under:

Item No.	Item	Pay Unit
6.79 AG	4" DUCTILE IRON PIPE CONNECTION	L.F.

**SECTION 9.97 MC
MONUMENT MASONRY CLEANING**

9.97MC.1. SUMMARY.

Provide for the cleaning of limestone masonry and pebble aggregated paving material at the Zion War Memorial, Brooklyn, NY.

9.97MC.2. DESCRIPTION

Work of this Section includes all labor, materials, equipment, and services necessary to complete masonry restoration work as shown on the drawings and as specified herein, including, but not necessarily limited to, the following:

1. Removal of general soiling and biological growth
2. Removal of staining
3. Removal of overpaint
4. Removal of bituminous fill

Information indicated on drawings or reasonably implied for complete execution is part of the Work of this Section.

9.97MC.3. RELATED SECTIONS

Monument Masonry Restoration

9.97MC.4. QUALITY ASSURANCE

A. Masonry Restoration Specialist: Engage an experienced firm that is specialized in masonry work on historic buildings. The contractor performing this work must have a minimum experience of five (5) consecutive years and have successfully completed within those five (5) years at least five (5) projects on historic buildings involving similar type and scope to the Work required by this Section.

1. Field Supervision (Foreman): Restoration specialist shall maintain experienced, full-time supervisors on project site during all times that work is in progress. Supervisors shall not be changed during the Project except for causes beyond control of restoration specialist firm. Supervisors shall speak the English language fluently, and shall have a minimum of five (5) years' experience with masonry restoration on historic buildings. Designation of the supervisor must be approved by the Engineer.
2. Restoration Worker: Use adequate numbers of skilled workers who are experienced with masonry restoration work and who have received training in the methods and materials specified and from the manufacturer's representative, as applicable, in the safe and proper use of the equipment required for the Work. Work required to be installed by workers approved by product manufacturers must be performed by workers trained and approved by the manufacturer. Only workers with a letter of acceptance

submitted shall perform such work. Workers must be observed and approved by Engineer. Approved Workers must remain for the duration of the project, and new Workers must be observed and approved prior to beginning work.

- B. Conservator: Engage an experienced conservator that has specialized in restoring sculptural work on historic monuments. The contractor performing this work must have a minimum experience of five (5) conservative years and have successfully completed within those five (5) years at least five (5) projects on historic monuments involving similar type and scope to the Work required by this section.
- C. Laws, Codes, and Regulations: Work of this section shall be carried out in accordance with Federal, State and local codes, and the requirements of any other agency having jurisdiction related to the transportation, handling, use and disposal of all materials deemed hazardous by the authority having jurisdiction. In all cases, the more restrictive limitation of any applicable requirement(s) shall be followed.
- D. Alternate Masonry Cleaning Methods: If Contractor proposes the use of cleaning procedures and products different than those specified and Engineer provides preliminary approval, Contractor shall perform tests and mock-ups demonstrating effectiveness of proposed procedures and products at no additional cost to the City. No alternate method shall be permitted or tested on site until Engineer approves.
- E. Restoration of Damaged Masonry: Damage occurring to the monument as a result of work of this section or Contractor's failure to protect against the occurrence of such damage shall be the Contractor's responsibility. The Contractor shall restore damaged areas to the complete satisfaction of the Engineer at no expense to the City.

9.97MC.5. SUBMITTALS

- A. General: Submit the following in accordance with the Contract Documents. Revise and resubmit, as directed by the Engineer, in order to obtain approval.
- B. Qualification Data: Submit documentation of Qualifications outlined in subsection 9.97MC.4.
 - 1. For Masonry Restoration Specialist, Conservator and Field Supervisor, provide a list of three projects that demonstrate that the requirements outlined in subsection 9.97MC.4 are met. Include Project Name, Address, Architect/Engineer, Reference, Description of Work Scope, and any other pertinent information. Submit this information with the bid.
 - 2. For products required to be installed by workers approved by product manufacturers, include letters of acceptance by product manufacturers certifying that installers are approved to apply their products.
- C. Work Description: For each type of work or task included in the masonry restoration scope, provide detailed description of materials, methods, equipment, and sequence of operations to be used on building and Project site. Work descriptions should be provided prior to implementation of any stone cleaning on site.
 - 1. Cleaning: Include methods, materials, equipment and tools for each cleaning scope specified herein.
 - 2. Protection: Include methods, materials, and drawings or sketches for protection required to prevent damage to building elements or people that may be caused by the work.

3. **Alternate Materials and Methods:** If materials and methods other than those indicated are proposed for any phase of the Work, provide a written description in detail with all significant characteristics to material and method specified. Include evidence of successful use on comparable projects, and a testing program to demonstrate their effectiveness for this Project.
 - D. **Conservation Proposal:** Prior to commencing work, the conservator and masonry restoration specialist must submit a preliminary restoration report proposal for submission to the Public Design Commission of the City of New York for Final Review. The Final Report shall meet the requirements, as per the Artwork Conservation or Relocation: Final Review Checklist.
 - E. **Product Data:** Submit manufacturers' technical data for each product indicated including recommendations for their storage, application and use. Include test reports and certifications substantiating that products comply with requirements. Submit in advance Material Safety Data Sheets for each product used in the Work.
- Waste Disposal Program:** Prior to implementation of any masonry cleaning, provide a detailed description of proposed materials, methods, equipment, and sequence of operations to be used in the collection, treatment, and disposal of waste generated from stone cleaning.
- F. **Mock-ups:** Prepare mock-ups for approval by the Engineer as outlined in the following section.

9.97MC.6. MOCK-UPS

A. General

1. Locate mock-ups as directed by the Engineer.
2. Mock-ups shall be prepared using materials and methods specified.
3. Materials shall be applied in strict accordance with the manufacturer's printed instructions.
4. Mock-ups shall be conducted by crew who will execute the work.
5. Repeat mock-ups as necessary to obtain approval by Engineer.
6. Engineer review and approval of mock-up panels shall not relieve the Contractor from responsibility for error or for proper coordination and assembly of materials and equipment with other work, nor from responsibility of furnishing materials and labor not indicated, but required by the Contract Documents for completion of the Work.
7. Approved mock-ups shall be maintained in place for the duration of the Project in an undisturbed condition, suitably marked, as a standard for judging completed work.
8. Approved mock-ups may remain as an integral part of the finished work if undisturbed at time of Substantial Completion and paid under this item.
9. Do not proceed with the Work until approval of mock-ups is secured from the Engineer.

- B. Prepare the following mock-ups:
1. Cleaning to remove general soiling and biological growth – 1sf
 2. Removal of discoloration – 1sf
 3. Removal of overpaint – 1sf
 4. Removal of bituminous material – 1lf

9.97MC.7. FIELD QUALITY CONTROL

- A. Allow City and Engineer use of scaffolding, as needed, to observe progress and quality of work completed.
- B. Notify Engineer in advance of times when lift devices and scaffolding will be relocated. Do not relocate lift devices and scaffolding until each has had reasonable opportunity to make observations of work areas at lift device or scaffold location.

9.97MC.8. DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials ready to use in manufacturer's original and unopened containers, labeled with manufacturer's name and type of products. Deliver and store packaged materials in original containers with seals unbroken and labels intact until time of use.
- B. Delivered materials shall be identical to samples.
- C. Deliver, handle, and store materials in accordance with manufacturer's recommendations.
- D. Control delivery schedules to minimize long-term storage of products at site and overcrowding of construction spaces. In particular, provide delivery-installation coordination to ensure minimum holding or storage time for products recognized to be flammable, hazardous, easily damaged, sensitive to deterioration, theft, and other sources of loss.
- E. Remove materials which are damaged or otherwise not suitable for installation from the job site and replace with acceptable materials at no additional cost to the City.

9.97MC.9. PROJECT CONDITIONS

- A. Safety: All working conditions and procedures must conform to Occupational Safety and Health Administration (OSHA) and general industry standards. Proper safety procedures shall follow all local, state and federal regulations. Appropriate personal safety equipment should be utilized when necessary, including properly fitting respirators fitted with appropriate filters, eye protection, and gloves.
- B. Protection: Prevent materials used for the Work from damaging or staining surrounding building materials/components and other surfaces. Immediately remove work materials in contact with exposed building materials/components and other surfaces. Contractor shall repair or replace any items damaged in the course of the Work at no extra cost to the City and to the approval of the Engineer.
- C. Surfaces to Receive Work: The Drawings are two-dimensional representations of three-dimensional surfaces and do not show sides of surfaces. Perform work on surfaces of

projections, reveals ornament, and other elements associated with areas on which work is indicated.

D. Coordination

1. Pre-construction Meeting: Meet with Engineer, and all trades affected by the Work of this section to review protection, procedures, and coordination, prior to beginning of work.
2. Contractor shall arrange with the Engineer for means of access to premises, necessary utilities, and space for storage of material and equipment, etc.
3. Sequence: Masonry cleaning work should be completed before masonry restoration work, as outlined in Section 9.97 MR Monument Masonry Restoration, unless otherwise noted.
4. Staging: Cleaning work should be scheduled and staged so that runoff from cleaning does not come in contact with previously cleaned areas.

9.97MC.10. ENVIRONMENTAL REQUIREMENTS

Maintain environmental conditions and protect work during and after installation to comply with manufacturer's printed recommendations.

9.97MC.11. COLLECTION AND DISPOSAL OF WASTE PRODUCTS

- A. General: Collect, contain, test, and dispose of solid and liquid wastes in accordance with applicable federal, state, and local laws and regulations. Observe "Rules and Regulations Relating to the Use of the Public Sewers, Including Sewer Surcharges" published by New York City Department of Environmental Protection, Industrial Waste Control Section.
- B. Collection: Direct waste materials to collection vessels for treatment.
- C. Neutralizing: Neutralize cleaning waste products to a pH of between 5.0 and 9.5. Propose specific methods and materials for neutralization in Waste Disposal Program submission.
- D. Disposal: Dispose of stone masonry run-off by legal means that prevent: erosion, undermining, damage to plant material, and water penetration into building.
 1. Install protection and waste collection systems before beginning stone masonry cleaning work.
 2. Test drains and other water removal systems to ensure that they are functioning properly before cleaning operations begin. Notify Engineer at once if drains or systems are stopped or blocked. Do not begin work of this Section until drains are in good working order.
 3. Filter stone masonry runoff to prevent suspended solids such as masonry residue from entering drains and drain lines. Contractor at his own expense shall clean out drains and drain lines that become blocked or filled with sand or other solids as a result of work performed under this Section.

4. Dispose of waste products at regular intervals. Do not allow waste products to accumulate on site.

9.97MC.12. MATERIAL

- A. Provide the following products for use in cleaning substrates and conditions indicated. Use dilutions as specified by Engineer. Provide different products for cleaning as directed by Engineer.

- B. Cleaners for cleaning General Soiling and Biological Growth:

D/2 Biological Solution, manufactured by D/2 Biological Solutions, Inc., P.O. Box 3746, Westport, MA, or approved equal.

Cleaners furnished by the following suppliers are acceptable for use in this contract:

LimeWorks.us
3145 State Road,
Telford, PA 18969
Ph: 215-536-6706
<http://www.limeworks.us/home.php>

A.H. Harris & Sons, Inc.
52-37 Second Street
Long Island City New York 11101
Ph: (718) 361-7961
<http://ahharris.com/>

Bonstone Materials Corporation
707 Swan Drive
Mukwonago, WI 53149
Ph: 262-363-9877
<https://bonstone.com/>

or an approved equivalent.

- C. Removers for removing Discoloration:

Liquid Marble Cleaner, manufactured by ProSoCo, Inc, 371 Greenway Circle, Lawrence, KS 66046, or approved equal.

Removers furnished by the following suppliers are acceptable for use in this contract:

ProSoCo, Inc.
371 Greenway Circle
Lawrence, KS 66046
Phone:(785) 865-4200
<https://www.prosoco.com/>

Thoro System Waterproofing, Inc.
1850A Delmar Drive
Folcroft, PA 19032
Phone:(610) 583-5502
www.thorosystem.com/

Waldo Bros Co
1390 John Fitch Blvd
South Windsor, CT 06074
Phone:(860) 289-9500
www.waldobros.com/
or an approved equivalent.

D. Strippers for removing Overpaint:

Multi Strip Professional Paint Remover, manufactured by Back to Nature Products Co., 28 Harrison Ave. Suite 238, Englishtown, NJ 07726, or approved equal.

Strippers furnished by the following suppliers are acceptable for use in this contract:

Back to Nature Products Co.,
28 Harrison Ave. Suite 238,
Englishtown, NJ 07726,
Ph. 732-792-2001
E-mail: Info@Backtonatureprod.com

Green Building Materials
1 Ivy Hill Road
Brooklyn, NY 11211
Ph. (718) 782-2991
http://www.greendepot.com/greendepot/dept.asp?dept_id=22

Grainger Industrial Supply
150 Varick St
NEW YORK, NY 10013
Ph. 1 (800) 472-4643
<https://www.grainger.com/>
or an approved equivalent.

E. Water for Chemical Cleaning and Other Work of this Section: Clean, potable, free of oils, acids, alkalis, salts, organic matter, soluble and insoluble iron, and other substances detrimental to surfaces being cleaned and non-staining.

1. Source: Subject to requirements specified, water may be obtained from city water supply (filtration may be required).

9.97MC.13. EQUIPMENT FOR CHEMICAL CLEANING

- A. General: Provide equipment and accessories necessary to distribute water at pressures and flow rate necessary for stone masonry cleaning.
- B. Brushes: Natural fiber bristle or synthetic fiber bristles only. No metal bristle brushes are permitted.

- C. pH Indicator
- D. Electronic pH Indicator Pen: Suitable for use intended and approved by Engineer.
- E. pH Strips or Paper: Non-staining litmus paper with appropriate range approved by Engineer. Furnish pH strips on site during entire period when work of this section is being performed.

9.97MC.14. MISCELLANEOUS MATERIALS

- A. Protection Materials: Use protection materials recommended by the manufacturer for the products specified to protect surrounding materials from chemical damage. Protection materials should not damage materials that are protected.

1. Plastic Sheeting: Polyethylene sheeting shall be a minimum of 6 mils thick.

9.97MC.15. GENERAL MASONRY CLEANING REQUIREMENTS

- A. General: These requirements apply to all work of this Section.
- B. Areas to Be Cleaned: Locations of materials to be cleaned are designated on Drawings. In each case, clean to Engineer delineated boundaries.
- C. Timing: Control timing of stone masonry cleaning operations (including dwell times of cleaners and poultices) to ensure that specified times are maintained. Do not allow chemicals to remain on surfaces longer than dwell times determined during mock-ups.
- D. Uniform cleaning: Clean masonry to achieve uniform results so that flat surfaces, edges, corners, crevices, profiles, and recessed areas are uniformly cleaned.
- E. Water Pressure and Flow Rate: Water pressure and flow rates should be limited to maximum pressures specified below and to lower pressures as required to avoid damaging masonry, metals, plaster, sealants, and other materials and finishes.
 - 1. Pressure: 400 psi or less as required to avoid damage to materials being cleaned and to surrounding materials.
 - 2. Flow Rate: 6 gallons per minute
 - 3. Nozzle should be fan tipped and not be held closer than 12" from surface of marble. Hold nozzle at a uniform distance that optimizes cleaning, as determined during mock-up.
 - 4. Adjustments: If any building material is damaged or deteriorated by water rinsing, immediately cease work. Do not begin rinsing again until water pressure and flow rate have been adjusted and additional protection for surrounding materials has been installed and approved by Engineer.
- F. Alteration: Stone masonry cleaning procedures, including cleaning chemical, chemical dilution, and dwell time may be altered by Engineer based on site conditions.

Completion of Cleaning: Cleaned masonry shall match approved mock-ups. Areas are subject to additional cleaning as directed by Engineer in order to match mock-ups. Work of stone

masonry cleaning on each surface shall not be considered complete until Engineer has inspected surface and so notified Contractor in writing.

9.97MC.16. CLEANING GENERAL SOILING USING CHEMICALS AND WATER RINSING

- A. General: Remove general soiling from masonry using D/2 Biological Solution to achieve masonry surface free of general soiling matching approved mock-up to Engineer satisfaction.
- B. Cleaner Application and Removal: Apply D/2 Biological Solution following manufacturer's recommendations for application method and dwell time. Remove chemical following manufacturer's directions.
- C. Additional Removal: Repeat above procedure as necessary to achieve uniformly clean masonry free of general soiling with surface matching standard of approved mock-up.

9.97MC.17. REMOVING DISCOLORATION

- A. General: Remove discoloration/staining from masonry using Liquid Marble Cleaner to achieve masonry surface free of discoloration matching approved mock-up to Engineer's satisfaction.
- B. Remover Application and Removal: Apply Liquid Marble Cleaner following manufacturer's recommendations for application method. Allow to dwell for 20 minutes. Remove chemical following manufacturer's directions.
- C. Additional Removal: Repeat above procedure as necessary to achieve uniformly clean masonry free of general soiling with surface matching standard of approved mock-up.

9.97MC.18. REMOVING OVERPAINT

- A. General: Remove overpaint using Multi-Strip Professional Paint Remover to achieve masonry surface free of overpaint and graffiti matching approved mock-up to Engineer's satisfaction.
- B. Remover Application and Removal: Apply Multi-Strip Professional Paint Remover following manufacturer's recommendations for application method. Allow to dwell for 24 hours. Remove chemical following manufacturer's directions.
- C. Additional Removal: Repeat above procedure as necessary to achieve uniformly clean masonry free of general soiling with surface matching standard of approved mock-up.

9.97MC.19. REMOVING BITUMINOUS FILL

- A. General: Remove bituminous material mechanically with a steel trowel or other approved tool to achieve a masonry surface free of bituminous material matching approved mock-up to Engineer's satisfaction.
- B. Removal: Mechanically remove bituminous material with a steel trowel or other approved tool without damaging or dislodging any of the surrounding masonry.

C. See Section 9.97 MR.13. (A) for repair procedure.

9.97MC.20. ADJUSTMENT AND PROTECTION

- A. Reclean surfaces that do not have a uniform clean appearance matching approved mock-ups to achieve uniformly clean surfaces matching approved mock-ups.
- B. Protect cleaned surfaces from dirt and soiling from other than normal atmospheric pollution until Project completion. Reclean surfaces that become soiled to Engineer's satisfaction at no additional cost to City.

9.97MC.21. CLEAN-UP

- A. Clean and restore sidewalks, paving, and lawns soiled or damaged as a result of cleaning operations. Remove all protective materials. Remove construction debris from project site and legally dispose of debris.

9.97MC.22. MEASUREMENTS

The Contractor will be paid the lump sum price bid for completing all of the work required to be done hereunder.

9.97MC.23. PRICE TO COVER

The lump sum price bid for Masonry Cleaning shall cover the cost of furnishing all labor, materials, equipment, service, insurance, and necessary incidentals required 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	Pay Unit
9.97 MC	MONUMENT MASONRY CLEANING	L.S.

SECTION 9.97 MR MONUMENT MASONRY RESTORATION

9.97 MR.1. SUMMARY

Provide for the repair and restoration of failing and deteriorated limestone masonry, and replacement of pebble aggregated paving materials, at the Zion War Memorial, Brooklyn, NY.

9.97 MR.2. DESCRIPTION

Work of this Section includes all labor, materials, equipment, and services necessary to complete the work of stone masonry restoration as shown on the Drawings, as specified herein, including, but not limited to, the following:

1. Preparing and filling cracks using injection grout and composite patch material as specified herein.
2. Repairing losses with composite patch material finished to match adjacent profile, color, and, texture.
3. Raking out and repointing failed or open joints.
4. Remediating disaggregation by removing loose material and finishing surface to match adjacent profile and, texture.
5. Replacing failed/inappropriate previous repairs with composite patch material finished to match adjacent profile, color, and, texture.
6. Repairing partially damaged stone units with Dutchman repairs that match the existing color, texture, and profile.
7. Replacing cracked and damaged stone units with new stone to match existing color, texture, and profile.
8. Removing and replacing pebbledash pavement to match existing color, size, gradation and shape of aggregate.

9.97 MR.3. RELATED SECTIONS

9.97 MC – Monument Masonry Cleaning

9.97 MR.4. QUALITY ASSURANCE

(A) Masonry Restoration Specialist: Engage an experienced firm that has specialized in masonry work on historic buildings. The contractor performing this work must have a minimum experience of five (5) consecutive years and have successfully completed within those five (5) years at least five (5) projects on historic buildings involving similar type and scope to the Work required by this Section.

1. Field Supervision (Foreman): Restoration specialist shall maintain experienced, full-time supervisors on project site during all times that work is in progress. Supervisors shall not be changed during the Project except for causes beyond control of restoration specialist firm. Supervisors shall speak the English language fluently, and shall have a minimum of five (5) years' experience with

masonry restoration on historic buildings. Designation of the supervisor must be approved by the Engineer.

2. Restoration Worker: Use adequate numbers of skilled workers who are experienced with masonry restoration work and who have received training in the methods and materials specified and from the manufacturer's representative, as applicable, in the safe and proper use of the equipment required for the Work. Work required to be installed by workers approved by product manufacturers must be performed by workers trained and approved by the manufacturer. Only workers with a letter of acceptance submitted shall perform such work. Workers must be observed and approved by Engineer. Approved Workers must remain for the duration of the project, and new Workers must be observed and approved prior to beginning work.
- (B) Conservator: Engage an experienced conservator that has specialized in restoring sculptural work on historic monuments. The contractor performing this work must have a minimum experience of five (5) conservative years and have successfully completed within those five (5) years at least five (5) projects on historic monuments involving similar type and scope to the Work required by this section.
- (C) Laws, Codes, and Regulations: Work of this Section shall comply with applicable Federal, State, and local laws, codes, and regulations, and the requirements of any other agency having jurisdiction related to the transportation, handling, use and disposal of all materials deemed hazardous by the authority having jurisdiction. In all cases, the more restrictive limitation of any applicable requirement(s) shall be followed.
- (D) Alternate Masonry Repair Methods: If Contractor proposes the use of repair procedures and products different than those specified and Engineer provides preliminary approval, Contractor shall perform tests and mock-ups demonstrating effectiveness of proposed procedures and products at no additional cost to the City. No alternate method shall be permitted until Engineer approves.
- (E) Reference Standards: Comply with applicable requirements and recommendations of the latest editions of the referenced standards listed herein.
1. American Society for Testing and Materials (ASTM) C141: Standard Specification for Hydrated Hydraulic Lime for Structural Purposes
 2. ASTM C144: Standard Specification for Aggregate for Masonry Mortar
 3. ASTM C150: Standard Specification for Portland Cement
 4. ASTM C207: Standard Specification for Hydrated Lime for Masonry Purposes
 5. ASTM C270: Standard Specification for Mortar for Unit Masonry
 6. ASTM C568: Standard Specification for Limestone Dimension Stone
 7. ASTM C1528: Standard Guide for Selection of Dimension Stone
 8. ASTM C1713: Standard Specification for Mortars for the Repair of Historic Masonry
 9. ASTM C1722: Standard Guide for Repair and Restoration of Dimension Stone

- (F) Sources of Materials: Obtain each type of material for stone masonry restoration from a single source to ensure a match in quality, performance, and appearance.
- (G) Restoration of Damaged Masonry: Damage occurring to the monument as a result of work of this section or Contractor's failure to protect against the occurrence of such damage shall be the Contractor's responsibility. The Contractor shall restore damaged areas to the complete satisfaction of the Engineer at no expense to the City.
- (H) Knowledge of Site and Project Conditions: Before submitting bid, Bidders shall make themselves thoroughly familiar with the Drawings and Specifications, with the scope of this Project, and with conditions at the Project site relating to requirements of this Section and limitations under which the work will be performed and shall determine or verify dimensions and quantities. Submission of a bid shall be considered conclusive evidence that Contractor is thoroughly familiar with Project requirements and site conditions and limitations.

9.97 MR.5. SUBMITTALS

- (A) General: Submit the following in accordance with the Contract Documents. Revise and resubmit each item as required to obtain Engineer's approval.
- (B) Qualification Data: Submit documentaiton of Qualification outlined in subsection 9.97 MR.4.
1. For Masonry Restoration Specialist, Conservator and Field Supervisor, provide a list of three projects that demonstrate that the requirements outlined in subsection 9.97 MR.4. are met. Include Project Name, Address, Engineer, Reference, Description of Work Scope, and any other pertinent information. Submit this information with the bid.
 2. For products required to be installed by workers approved by product manufacturers, include letters of acceptance by product manufacturers certifying that installers are approved to apply their products.
- (C) Work Description: For each type of work or task included in the masonry restoration scope, provide detailed description of materials, methods, equipment, and sequence of operations to be used on building and Project site. Work descriptions should be provided prior to implementation of any stone work on site.
1. Materials and Procedures: Include methods, materials, equipment and tools for each restoration scope specified herein.
 2. Protection: Include methods, materials, and drawings or sketches for protection required to prevent damage to building elements or people that may be caused by the work.
 3. Alternate Materials and Methods: If materials and methods other than those indicated are proposed for any phase of the Work, provide a written description in detail with all significant characteristics to material and method specified. Include evidence of successful use on comparable projects, and a testing program to demonstrate their effectiveness for this Project.
- (D) Conservation Proposal: Prior to commencing work, the conservator and masonry restoration specialist must submit a preliminary restoration report proposal for

submission to the Public Design Commission of the City of New York for Final Review. The Final Report shall meet the requirements, as per the Artwork Conservation or Relocation: Final Review Checklist.

- (E) Product Data: Submit manufacturers' technical data for each product indicated including recommendations for their storage, application and use. Include test reports and certifications substantiating that products comply with requirements. Submit in advance Material Safety Data Sheets for each product used in the Work.
- (F) Shop Drawings: Dimensioned detailed scale drawings at appropriate scales to clearly describe stone masonry restoration; details of anchors and fasteners, 3-inches equals 1-foot scale, minimum. Submit newly prepared drawings showing site-verified conditions and materials. Photocopies of Contract Documents and/or electronic scans of Contract Documents will not be accepted for Shop Drawing submittals.
 - 1. Stone Replacement units
 - a. Submit shop drawings for all whole stone replacement units. Drawings should include profiles, sizes and connections.
 - b. Do not begin fabrication until shop drawings have been received and approved by the Engineer.
- (G) Samples for Verification: Before erecting mock-ups, submit samples of the following:
 - 1. Mortar: Three (3) cured samples of the specified mortar. Samples should be set in plastic or aluminum channels measuring ½" x 6". On approval, one sample will be returned to the contractor to remain on site as the standard for work.
 - 2. Patch Material: Three (3) cured samples of the patch material matching the color of the existing limestone. Samples shall be 3" x 4" x ½" deep. On approval, one will be returned to the contractor to remain on site as the standard for work.
 - 3. Grout for Crack Repair: Cured samples of custom color grout matching the color of existing limestone. Samples shall be set in plastic or aluminum channels measuring ½" x 6". On approval, one sample will be returned to the contractor to remain on site as the standard for work.
 - 4. Limestone: Samples of limestone matching the original limestone in color, grain, and finish. Minimum 6" x 6" x 1" deep samples.
 - 5. Pebbles: Samples of stone aggregate for pebble dash pavement (to match existing).
- (H) Mock-ups: Prepare mock-ups for approval by the Engineer as outlined in the following section.
- (I) Upon completion of the conservation and masonry restoration of the monument, photographs of Completed Work are to be submitted to the Public Design Commission as per their requirements.
- (J) As-Built Drawings: After completion of work, submit annotated elevation or plan drawings as an as-built record showing final locations of remedial work.

9.97 MR.6. MOCK-UPS**A. General**

1. Locate mock-ups as directed by the Engineer.
2. Engineer will monitor mock-ups. Mock-ups not performed in presence of Engineer will be rejected.
3. Mock-ups shall be prepared using materials and methods specified.
4. Materials shall be applied in strict accordance with the manufacturer's printed instructions.
5. Mock-ups shall be conducted by crew who will execute the work.
6. Repeat mock-ups as necessary to obtain approval by Engineer.
7. Engineer's review and approval of mock-up panels shall not relieve the Contractor from responsibility for error or for proper coordination and assembly of materials and equipment with other work, nor from responsibility of furnishing materials and labor not indicated, but required by the Contract Documents for completion of the Work.
8. Approved mock-ups shall be maintained in place for the duration of the Project in an undisturbed condition, suitably marked, as a standard for judging completed work.
9. Approved mock-ups may remain as an integral part of the finished work if undisturbed at time of Substantial Completion.
10. Do not proceed with the Work until approval of mock-ups is secured from the Engineer.

B. Prepare the following mock-ups:

1. Crack fill: Repairing cracked stone units by injecting grout and providing composite repair at crack surface – 1 repair location (minimum 6")
2. Crack fill: Repairing cracked stone units by routing and filling with composite repair – 1 repair location (minimum 6")
3. Patching losses with composite patch material – 2 repair locations (1 on limestone, 1 on pebble aggregated paving material)
4. Joint raking in preparation for repointing – 2lf
5. Pointing joints in limestone – 2lf
6. Tooling of loose surface material – 1 repair location
7. Dutchman repair: Prepare stone in preparation of Dutchman repair and install new stone Dutchman – 1 repair location

8. Installation of new stone unit – 1 unit
9. Pebbledash paving – 3' x 3'

9.97 MR.7. FIELD QUALITY CONTROL

- A. Allow City and Engineer to use of scaffolding, as needed, to observe progress and quality of work completed.
- B. Notify Engineer in advance of times when lift devices and scaffolding will be relocated. Do not relocate lift devices and scaffolding until each has had reasonable opportunity to make observations of work areas at lift device or scaffold location.

9.97 MR.8. DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials ready to use in manufacturer's original and unopened containers, labeled with manufacturer's name and type of products. Deliver and store packaged materials in original containers with seals unbroken and labels intact until time of use.
- B. Delivered materials shall be identical to samples.
- C. Deliver, handle, and store materials in accordance with manufacturer's recommendations.
- D. Control delivery schedules to minimize long-term storage of products at site and overcrowding of construction spaces. In particular, provide delivery-installation coordination to ensure minimum holding or storage time for products recognized to be flammable, hazardous, easily damaged, sensitive to deterioration, theft, and other sources of loss.
- E. Store aggregates/sands where gradation, moisture content, and other required characteristics can be maintained and contamination avoided.
- F. Remove materials which are damaged or otherwise not suitable for installation from the job site and replace with acceptable materials at no additional cost to the City.
- G. Store cementitious materials on elevated platforms, under cover, and in a dry location. Do not use cementitious materials that have become damp.
- H. Handling Stone: Handle stone to prevent chipping, breakage, soiling, and other damage.
 1. Use competent craftspeople and methods that guard against damage and deterioration.
 2. Do not use pinch or wrecking bars without protecting edges of stone with wood or other rigid materials.
 3. Lift with wide belt type slings wherever possible; do not use wire rope or ropes containing tar or other substances that might cause staining.
 4. Use wood rollers and provide cushion at end of wood slides as necessary to avoid damaging stone units.

5. Keep surfaces free from dirt, soot, grime, grease, and other discoloring matter.

9.97 MR.9. PROJECT CONDITIONS

- A. **Safety:** All working conditions and procedures must conform to Occupational Safety and Health Administration (OSHA) and general industry standards. Proper safety procedures shall follow all local, state and federal regulations. Appropriate personal safety equipment should be utilized when necessary, including properly fitting respirators fitted with appropriate filters, eye protection, and gloves.
- B. **Protection of Monument:** Prevent materials used for the Work from damaging or staining surrounding building materials/components and other surfaces. Immediately remove work materials in contact with exposed building materials/components and other surfaces. Contractor shall repair or replace any items damaged in the course of the work at no extra cost to the City and to the approval of the Engineer. Take precautions necessary to prevent fire and spread of fire.
- C. **Surfaces to Receive Work:** The Drawings are two-dimensional representations of three-dimensional surfaces and do not show sides of surfaces. Perform work on surfaces of projections, reveals ornament, and other elements associated with areas on which work is indicated.
- D. **Responsibility for Dimensions:** Dimensions of existing elements and conditions in Contract Documents are provided for bidding purposes and for Contractor's information and are not guaranteed. Contractor shall measure existing elements and conditions in field before ordering materials or starting construction.
- E. **Debris Removal:** Remove debris using suitable containers. Use methods that will reduce dust and impact to an absolute minimum. Keep premises clean and do not store or permit excess debris to accumulate on site.
- F. **Coordination**
 1. **Pre-construction Meeting:** Meet with Engineer, and all trades affected by the Work of this section to review protection, procedures, and coordination, prior to beginning of work.
 2. Contractor shall arrange with the Engineer for means of access to premises, necessary utilities, and space for storage of material and equipment, etc.
 3. **Sequence:** Masonry cleaning work, as outlined in Section 9.97 MC, should be completed before beginning masonry restoration work.

9.97 MR.10. ENVIRONMENTAL REQUIREMENTS

- A. Unless approved by the Engineer, do not work in temperatures below 40°F or above 90°F, or when the temperature is expected to fall below 40° F or rise above 90° F for 48 hours after implementation of repair.
 1. **Hot-Weather Requirements for Cementitious Materials:**
 - a. Protect repairs from direct sunlight and wind when the ambient air temperature exceeds 70°F.

b. Protect repair work when temperature and humidity conditions produce excessive evaporation of water from patching materials. Provide artificial shade and wind breaks, and use cooled materials as required. Do not apply to substrates with temperatures of 85°F (30°C) and above. However, the hot weather requirements should strictly follow the recommendations of the product manufacturer for the final product chosen.

2. Cold-Weather Requirements for Cementitious Materials:

a. Do not apply unless air and substrate temperature is above 40°F and rising for at least 24 hours after completion of the Work. However, the cold weather requirements should strictly follow the recommendations of the product manufacturer for the final product chosen.

3. Cold-Weather Masonry Construction Requirements:

a. When construction occurring below an ambient air temperature of 40° F is approved by the Engineer, implement cold weather construction procedures as specified in Section 1.8 C. in the Masonry Standards Joint Committee Specification for Masonry Structures (TMS 602/ACI 530.1/ASCE 6).

9.97 MR.11. WARRANTY

A. Provide 5 year labor and materials warranty against defects in construction and materials.

9.97 MR.12. PRODUCTS

LIMESTONE

Sound limestone complying with ASTM C568 and matching existing clean marble in each location to be repaired in physical and chemical properties and in color, texture, and other surface characteristics.

PRE-FORMULATED PATCH MATERIAL

Composite Patching Mortar for Limestone: Single-component, cementitious, mineral-based mortar specifically manufactured for the restoration of natural stone. Provide Jahn M70 Limestone Repair Mortar, available from Cathedral Stone Products, Inc., 7266 Park Circle Dr., Hanover, MD 21076 (800-684-0901), Or approved equivalent. Provide custom colors to match colors of clean marble being patched.

Composite Patching Mortar for Limestone furnished by the following suppliers, are acceptable for use in this contract:

Cathedral Stone Products, Inc.
7266 Park Circle Dr
Hanover, MD 21076
Ph:(410) 782-9150
www.cathedralstone.com/

Allied Building Products
42-16 11th Street
Long Island City, NY 11101
Ph:(718) 706-0145
www.alliedbuilding.com/

Extech Building Materials
43-87 Vernon Blvd
Long Island City, NY 11101
Ph:(718) 786-2288

www.extechbuilding.com/

or an approved equivalent.

PRE-FORMULATED GROUTS

Cementitious Injection Grout: Single-component, water-vapor-permeable, cementitious grout formulated specifically for injecting cracks and voids in masonry in custom colors to match color of cleaned existing marble units being reinforced. Provide Jahn M40 or M30 Crack and Void Injection Grout, available from Cathedral Stone Products, Inc., 7266 Park Circle Dr., Hanover, MD 21076 (800-684-0901),

Cathedral Stone Products, Inc.
7266 Park Circle Dr
Hanover, MD 21076
Ph:(410) 782-9150
(800-684-0901)
www.cathedralstone.com/

Allied Building Products
42-16 11th Street
Long Island City, NY 11101
Ph:(718) 706-0145
www.alliedbuilding.com/

Extech Building Materials
43-87 Vernon Blvd
Long Island City, NY 11101
Ph:(718) 786-2288
www.extechbuilding.com/

or an approved equivalent.

MORTAR MATERIALS

- A. White Portland Cement: Type I or Type II, non-staining that complies with ASTM C150.
- B. Hydrated Lime: High calcium lime that complies with ASTM C207-06(2011).

Provide Mississippi Lime Standard Hydrated Lime, available from Mississippi Lime Company, 3870 S. Lindbergh Blvd., Suite 200, St. Louis, MO 63127 (314-543-6300), or approved equivalent.

Hydrated Lime furnished by the following suppliers are acceptable for use in this contract:

Mississippi Lime Company
3870 S. Lindbergh Blvd. Suite 200
St. Louis, MO 63127
Ph: (800) 437-5463
www.mississippilime.com/

JNS-SmithChem, LLC
90 6th Avenue
Paterson, NJ 07524
Ph:(973) 278-9050
www.jns-smithchem.com/contact.html

Rocky Mountain Transload
4620 Monaco Avenue
Denver, CO 80216
Ph:(303) 333-1039
<http://www.rmtcompanies.com/>

or an approved equivalent.

- C. Natural Hydraulic Lime 3.5: Natural hydraulic lime that complies with ASTM C141 and contains no additives.

Provide St. Astier Natural Hydraulic Lime 3.5, available from LimeWorks, PO Box 151, Milford Square, PA 18935 (215-536-6706), or approved equivalent.

Natural Hydraulic Lime furnished by the following suppliers are acceptable for use in this contract:

LimeWorks.us
3145 State Road,
Telford, PA 18969
Ph: 215-536-6706
<http://www.limeworks.us/home.php>

Amicus Green Building Center
4080 A Howard Avenue
Kensington, MD 20895
Ph:(301) 571-8590
www.amicusgreen.com/

Ecowise
5501 N Lamar Blvd,
Austin, TX 78751
Ph:(512) 326-4474
<http://www.ecowise.com/>

or an approved equivalent.

- D. Sand: Washed sand that complies with ASTM C144.

1. Pebble Matrix mortar: Provide George Schofield #181, available from George Schofield Company, 831 E. Main St., Bridgewater, NJ 08807 (732-356-0858).
2. Limestone mortar: Provide Ace Crete White Sand, available from Ace-Crete Products, Inc., 4 Rita Street, Syosset, New York 11791 (516-921-995).

Limestone mortar furnished by the following suppliers are acceptable for use in this contract:

Ace-Crete Products, Inc.
 4 Rita Street, Syosset
 New York
 Ph: (516-921-995).
<http://www.acecreteproducts.com/contact.php>

Empire blended
 250 Hickory Lane
 Bayville, NJ 08721
 Ph:(732) 269-4949
<http://www.empireblended.com/>

Delaware County True Value Supply
 1000 Randall Avenue
 Boothwyn, PA 19061
 Ph: 610-485-1812
<http://ww3.truevalue.com/delawareco/Home.aspx>
 or approved equivalent.

MORTAR MIXES (BY VOLUME)

- A. Pebble matrix: 1 part Standard Hydraulic Lime:1 part White Portland Cement:6 parts GS #181 sand
- B. Limestone: 1 part Natural Hydraulic Lime: 2.25 parts Ace Crete White Sand

ADHESIVE

Epoxy adhesive for threaded rod: two-part moisture insensitive structural adhesive epoxy specifically for masonry substrate. Provide Hilti HIT-HY 70 hybrid anchor adhesive, available from Hilti, 5400 S. 122nd E. Ave., Tulsa, OK 74146 (800-879-8000), or approved equivalent.

Epoxy adhesive for threaded rod furnished by the following suppliers are acceptable for use in this contract:

Hilti
 5400 S 122nd E. Ave.,
 Tulsa, OK 74146
Phone:(918) 252-6000
<https://www.us.hilti.com/>

Ohio Service Supply
 24400 Sperry Drive
 Cleveland, Ohio 44145
<http://www.ohioservicesupply.com/>

Tri-City Distribution
 465 Iowa St.
 Redlands, CA 92373
 Ph: 909-798-9888
<http://www.tricity-distribution.com/contact-us/>

or an approved equivalent.

PINS

Stainless steel threaded rod, 1/4" diameter – 20 TPI (Type 316), or approved equivalent.

Stainless steel threaded rod furnished by the following suppliers are acceptable for use in this contract:

Grainger Industrial Supply
 150 Varick St
 NEW YORK, NY 10013
 Ph. 1 (800) 472-4643
<https://www.grainger.com/>
 American Bolt Corp
 16555 W. Glendale Drive
 New Berlin, WI 53151
 Ph:(262) 786-6530
<http://www.americanboltcorp.com/>

Fastenal
 951 3rd Ave
 Brooklyn, NY USA 11232
 Ph: (718) 499-6836
<https://www.fastenal.com/>

or an approved equivalent.

WATER

- A. Water for Chemical Repair and Other Work of this Section: Clean, potable, free of oils, acids, alkalis, salts, organic matter, soluble and insoluble iron, and other substances detrimental to surfaces being cleaned and non-staining.
 1. Source: Subject to requirements specified, water may be obtained from city water supply (filtration may be required).

9.97 MR.13. EXECUTION

(A) PREPARING AND FILLING CRACKS

- A. Definition: Repair open cracks as identified on the drawings and in the field.

B. Injection grout fills:

1. Follow manufacturer's recommendations for injection procedures with Jahn M30 grout. Ensure cracks are temporarily sealed/dammed prior to injection to prevent staining of exterior masonry. If grout flows into wall without filling the crack, stop injection at that location for a minimum of 4 hours to allow grout to set up and then re-inject crack.
2. Cap over the grout using Jahn M70 composite patching material color matched to the adjacent stone. Finish surface flush to adjacent stone, matching finish and texture. Follow manufacturer's curing procedures.

C. For rout and fill:

1. Rout length of crack no more than 1/4" wide and a minimum 1/2" deep.
2. Remove dust and debris by brushing.
3. Flush crack with water to wet surface.
4. Install Jahn M70 composite patching material into crack. Finish surface flush to adjacent stone, matching finish and texture. Follow manufacturer's curing procedures.

(B) REPAIRING LOSSES OR REPLACING PREVIOUS INAPPROPRIATE PATCHES WITH COMPOSITE PATCH MATERIAL

- A. Definition: Use composite material specified herein to repair losses or to address previous incompatible patch repairs.
- B. If applicable, remove previous failed patch material carefully to prevent any damage to adjacent stone.
- C. Follow manufacturer's recommendations and directions for product use.
- D. Surfaces receiving patch material must be free of all dust, dirt, grease, laitance, and any other coating or foreign substance which may prevent proper adhesion.
- E. Remove all loose and deteriorated masonry from the repair area using manual or pneumatic cutting tools.
- F. The area to be repaired should be cut to provide a minimum of 1/2" depth, with dovetail edges. Do not install repairs that have a feathered edge; incorrect installation will cause repairs to fail prematurely.
- G. Wash the prepared surface with clean water, bristle brush, and/or compressed air to remove dust from the pores.
- H. Application:
 1. "Peanut Butter" coat: Prepare patch material to the consistency of wet putty. Apply the "Peanut Butter" coat to wet substrate approximately 1/8 inch thick. Do not allow "Peanut Butter" coat to dry out prior to application of patch material.

2. Apply patch material to repair, building the material out beyond the surface of the original stone.
- I. After achieving initial set, scrape away excess mortar until the desired profile is reached. The waiting period for scraping should be determined on the job, due to the effects of heat, humidity, and wind on the final color. Repairs should not be floated or heavily troweled to achieve the finish, since this can alter the texture, porosity, and color of the material.
 - J. Where necessary, anchor using threaded stainless steel rods. Install threaded rod anchorages for each 20 square inches of face area for all repairs exceeding 1 inch in depth.
 1. Drill blind holes 1/8" larger than the diameter of the threaded rod and to a minimum 2" depth in substrate.
 2. Reduce angle as necessary for deep repairs where there are intact stone units above the repair location.
 3. Clean all holes with compressed air and small bottle brush.
 4. Dry test fitment of stone and rods. Ensure threaded rods have minimum of 1/4" cover after the final lift of composite material is placed and profiled.
 5. Fill holes with epoxy starting from the bottom of the hole to eliminate entrapped air.
 6. Install threaded rods in substrate.
 7. Allow epoxy to cure for a minimum of 4 hours (min. of 40° F) before any additional work is done in the repair area.
 - K. Finish surface to match tooling and texture of adjacent stone.
 - L. Periodically mist the mortar repairs using clean water for at least a 72-hour period; timing for this may vary depending on ambient conditions. Mist several times a day. Should access to the repairs be impossible over a period of time, plastic may be used to cover them temporarily. The application of plastic, however, does not remove the need for normal curing techniques.
 - M. Remove uncured mortar from the perimeter of the repair before it dries using clean water and a rubber sponge. Repeat several times with clean water to prevent a halo effect (staining of adjacent masonry).

(C) RAKING OUT AND REPOINTING FAILED OR OPEN JOINTS

- A. Definition: Rake and repoint failed mortar joints.
- B. Repointing should be done using the appropriate mortar mix specified herein for sandstone or brick.
- C. Rake out joints:

5. Remove mortar from joints to depth of 2 ½ times joint width, but not less than ¾ inch (19.5 mm) or not less than that required to expose sound, un-weathered mortar.
6. Remove mortar from surfaces within raked-out joints to provide reveals with square sides and backs and to expose stone edges for contact with pointing mortar. Brush, vacuum, or rinse joints with water to remove dirt and loose debris.
7. Do not spall edges of masonry units or widen joints. The following methods of mortar removal are possible:
 - a. Removal of mortar with the use of hand held chisels: The cutting edges of these chisels must be kept smaller than the width of the joint which is being cut.
 - b. The use of 4" circular diamond-tipped masonry blades: The width of the kerf should be no more than half the width of the joint. A cut is made down the middle of the horizontal joint (this technique is not to be used on vertical joints). Remove remaining mortar by hand with chisel and mallet. The width of chisels must not exceed 75% of the joint width. Power tools shall be used only after individual mechanics have demonstrated proficiency with each power tool requested. No damage or scarring to any surface of the historic material will be allowed.

D. Joint repointing

1. Flush raked joints and adjacent masonry surfaces with water to remove any dust or residual mortar. Time rinsing so that at the time of pointing, excess water has evaporated or drained off, in order to ensure that masonry surfaces are thoroughly damp but free from standing water.
2. Apply mortar in layers of no mortar than 3/8" at a time. Compact each successive layer well allowing it to become thumbprint-hard before applying next layer. Apply evenly and uniformly. Do not allow mortar to lap over onto the vertical masonry surfaces.
3. Where existing mortar has been removed to a greater depth than the surrounding area of the joint, these deeper areas should be filled first compacting the new mortar in several layers.
4. When the final mortar layer has become thumbprint-hard, tool the joint profile to match the original joints. Lightly dry-brush the surface with a natural or nylon bristle brush to remove excess mortar and laitance (an opaque binder-rich surface residue typically produced by the striking of wet mortar).
5. Cure the mortar by maintaining in a moist environment, through periodic misting, for no less than 72 hours. Protect from direct sunlight, wind, and rain for the duration of this initial curing period.

(D) REMEDIATING DISAGGREGATION BY REMOVING LOOSE MATERIAL

- A. Definition: Stone surface treatment to remove loose material and recreate surface texture where minor loss, scaling, disaggregation, or hairline cracking has occurred.

- B. Re-tool surface using hand held or small pneumatic driven chisels to remove loose material down to a sound substrate and restore original surface appearance and texture as directed by Engineer.
- C. Care should be taken to minimize the amount of material removed – only loose surface material and no sound stone should be removed. The surface should be configured so that water is directed off of and away from the monument.

(E) REPAIRING PARTIALLY DAMAGED STONE UNITS WITH DUTCHMAN REPAIRS

- A. Definition: Use partial replacement stone to repair moderate losses.
- B. Cut back area of loss/incipient loss and/or previous repair material to sound stone, squaring off all edges and carefully forming a rectangular-shaped void in existing stone.
- C. Dutchman must exactly match original stone in terms of mineralogy, color, and texture.
- D. Matching stone dutchman repairs should be fully dressed on all sides (matching the appearance and tooling of adjacent existing stone on the exposed surface) and carefully fitted to the size of the loss, with an allowance of not more than 1/16" between face edges.
- E. If any mortar joints around the dutchman are to be replaced, rake the joints to the same depth as the dutchman. Remove loose mortar particles and other debris with a stiff-fiber brush from surfaces to be bonded and surfaces of adjacent stone units that will receive mortar.
- F. Anchor dutchmen by means of blind threaded rods, where necessary. Install one anchor for each 20 square inches of face area of dutchman unless the configuration of a specific dutchman requires more.
 - 1. Use stainless steel threaded rods of appropriate diameter and two-part moisture insensitive structural adhesive epoxy to adhere dutchman.
 - 2. Drill blind holes 1/8" larger than the diameter of the threaded rod and to a minimum 2" depth in substrate.
 - 3. Where possible, drill holes at a slightly downward angle (approx. 15 degrees) into the substrate. Reduce angle as necessary for deep repairs where there are intact stone units above the repair location.
 - 4. Drill mating holes in dutchman to be attached, this hole should never come closer than 1" from the front face of the stone.
 - 5. Clean all holes with compressed air and small bottle brush.
 - 6. Cut threaded rods 1/8" shorter than the combined depth of the mating holes in both stone pieces.
 - 7. Dry test fitment of stone and rods. Ensure rods do not bottom out before dutchman is in full contact with the substrate.

8. Fill holes with epoxy starting from the bottom of the hole to eliminate entrapped air.
 9. Install threaded rods in substrate and push dutchman into place.
 10. The amount of epoxy used should never squeeze out of the joints when the dutchmen is set into place. The exposed edge of the joint should be clean and free of epoxy so the capping material can be installed, (see H. below).
 11. Allow epoxy to cure for a minimum of 4 hours (min. of 40° F) before any additional work is done in the repair area.
- G. Set dutchmen using a very thin layer of a structural adhesive (i.e. Hilti HIT-HY 70 or approved equal), applied to within approximately ¼" of the stone edges. Do not allow epoxy to squeeze out to the stone surface. Set stone with perimeter joint of no more than 1/16" wide.
 - H. Use patch material provided in this specification to point the new dutchman perimeter joint. Use pointing mortar formulation provided in this specification to repoint adjacent mortar joints.
 - I. Clean all epoxy residue, mortar splashes, and/or smear from the masonry surfaces using water and natural bristle brushes.

(F) REPLACING CRACKED AND DAMAGED STONE UNITS WITH NEW UNITS

- A. Replacement stone must exactly match original stones in terms of mineralogy, color, reflectance and texture.
- B. Prepare shop drawings and obtain approval prior to replacing cracked/damaged unit.
- C. Replacement stones should be fully dressed on all exposed sides, matching the appearance and surface tooling of adjacent existing stone on the exposed surface.
- D. If any mortar joints are around the area to be replaced by the stone, rake the joints. Remove loose mortar particles and other debris from surfaces to be bonded and surfaces of adjacent stone units that will receive mortar by cleaning with stiff-fiber brush.
- E. Set stone units as described in subsection 9.97 MR.13 (E).

(G) REMOVING AND REPLACING PEBBLEDASH PAVEMENT

1. Carefully remove existing pebbledash paving.
2. Apply pebbles onto concrete surface shortly after it is poured. Spread pebbles with a soft broom.
3. Apply mortar as specified in section 2.5A in layers of no more than 3/8" at a time. Compact each successive layer well allowing it to become thumbprint-hard before applying next layer. Apply evenly and uniformly. Do not allow mortar to lap over onto the pebble matrix.
4. When the final mortar layer has become thumbprint-hard, tool the profile. Lightly dry-brush the surface with a natural or nylon bristle brush to remove excess mortar and laitance (an opaque binder-rich surface residue typically produced by the striking of wet mortar).

- 5. Cure the mortar by maintaining in a moist environment, through periodic misting, for no less than 72 hours. Protect from direct sunlight, wind, and rain for the duration of this initial curing period.

9.97 MR.14. CLEAN-UP

- A. Clean and restore sidewalks, paving, and lawns soiled or damaged as a result of restoration operations. Remove all protective materials. Repair or replace damaged installed products. Clean installed products in accordance with manufacturers' instructions prior to Owner's acceptance. Remove construction debris from project site and legally dispose of debris.

9.97 MR.15. MEASUREMENT

The Contractor will be paid the lump sum price bid for completing all of the work required to be done hereunder.

9.97 MR.16. PRICE TO COVER

The lump sum price bid for stone Masonry Restoration shall cover the cost of furnishing all labor, materials, equipment, service, insurance, and necessary incidentals required and completing the work, in accordance with the Contract Drawings, the specifications and the directions of the Engineer.

Payment with be made under:

Item No.	Item	Pay Unit
9.97 MR	MONUMENT MASONRY RESTORATION	L.S.

**SECTION HW-914
ALLOWANCE FOR WAYFINDING TOTEMS**

HW-914.1. DESCRIPTION.

Under this item, the Contractor shall be required to pay to the New York City Department of Transportation (NYCDOT) TOTEM sign Contractor for furnishing and installing new (WAYFINDING) TOTEMS.

HW-914.2. MATERIALS.

(Not applicable)

HW-914.3. CONSTRUCTION DETAILS.

The NYCDOT TOTEMS sign Contractor shall only install (WAYFINDING) TOTEMS signs once the foundation (including paving tray and steel foundation plate) has been installed by the Contractor. The Contractor shall pick up, delivery to the project site and install the paving tray and steel foundation plate in accordance with plans, specifications and as directed by the Engineer. All costs for pick up, delivery to the project site and installation of the paving tray and steel foundation plate shall be deemed to be included in all scheduled items for foundation work pertinent to (Wayfinding) TOTEMS signs.

HW-914.4. METHOD OF MEASUREMENT.

The fixed price lump sum shown in the Bid Schedule for this item shall be included in the total bid price; however, actual payment to the Contractor will be based on the actual invoices submitted by the NYCDOT TOTEM sign Contractor.

It is agreed that all work shall be based on the actual number of (Wayfinding) TOTEM SIGNS that are installed by the NYCDOT TOTEM sign contractor to the satisfaction of the Engineer.

HW-914.5. BASIS OF PAYMENT.

The fixed sum shown in the proposal for the (Wayfinding) TOTEMS sign shall be considered the price bid for this item. The fixed sum is not to be altered in any manner by the bidder. Should the amount shown be altered, the new figures will be disregarded and the original price will be used to determine the total amount bid for the contract.

The fixed sum payment made under this item shall be equal to the sum of all invoices submitted by the NYCDOT TOTEM sign Contractor as proof of work performed for this item, as approved by the Engineer.

The total estimated cost of this item is the "fixed sum" amount shown for this item in the Bid Schedule and shall not be varied in the bid. The "fixed sum" amount is included in the bid solely to ensure that sufficient monies will be available to pay the Contractor for this work, which may be more or less than the fixed sum amount.

The unit price shall cover the cost of all labor, materials, equipment, insurance, and incidentals necessary to complete the work under this section in accordance with the Contract Drawings, the specifications and the directions of the Engineer.

Payment with be made under:

Item No.	Item	Pay Unit
HW-914	ALLOWANCE FOR WAYFINDING TOTEMS	F.S.

**SECTION 8.52 FP
(NOT A PAY ITEM)
STEEL FOUNDATION PLATE**

8.52FP.1. INTENT. This section describes the furnishing and installation of the Foundation Plate.

8.52FP.2. DESCRIPTION. The Steel Foundation Plate shall be embedded in the poured concrete footing to the nominal dimensions as indicated on the contract drawings and specifications.

8.52FP.3. MATERIALS. Steel Foundation Plates shall comply with the requirements of the NYC Department of Transportation (DOT) Standard Highway Specifications **Sections 2.35, Structural Steel** and shall be galvanized in accordance with **Section 2.34**.

8.52FP.4. SUBMITTALS. Shop drawings of each steel plate showing bolt locations shall be provided by the Contractor in accordance with the requirements of **Section 1.06.13** of the NYC DOT Standard Highway Specifications, for review and approval prior to fabrication.

8.52FP.5. NOT USED.

8.52FP.6. MEASUREMENT. Payment will be based on the computed weight of metal as shown on the approved shop drawings, and shall include, but not limited to permanent bolts and welds in the structure as erected.

Not to be included in the measurement is the weight of all erection materials including but not limited to bolts, pilot and driving nuts, temporary protective coatings, and all boxes, crates or other containers used for packing, together with sills, struts, and rods used for supporting members during transportation.

The weight of all required bolt heads, nuts and washers will be estimated, making no allowance for waste, and included in the weight for which payment will be made. The mass of all required welds will be estimated and included in the mass for which payment will be made.

8.52FP.7. PRICE TO COVER.

No separate payment will be made for steel foundation plate.

**SECTION 8.52 PT
(NOT A PAY ITEM)
PAVING TRAY**

8.52PT.1. INTENT. This section describes the furnishing of the ground level paving tray.

8.52PT.2. DESCRIPTION. Fabricated steel plate frame, angle and flat textured cover plate assembly, configured and to nominal dimensions as indicated on the contract drawings and specifications.

8.52PT.3. SUBMITTALS. All submittals shall be provided by the Contractor in accordance with the requirements of the NYC Department of Transportation's Standard Highway Specifications, General Conditions, **Section 1.06.13.**

- A. Shop Drawings: Erection and fabrication drawings for all totem components and accessories. Show plans and elevations at no less than 1/4 inch to 1'-0" scale, and details at not less than 1-1/2 inch to 1'-0" scale.
- B. Product Data: Manufacturer's printed specifications and installation instructions for each type of metal framing and accessory, including data required to show compliance with the Drawings and Specifications.

8.52PT.4. MATERIALS.

- A. Steel Plate and Side Brackets:
 - a. Material and Finish: Grade 304 Stainless Steel, Mill finish
 - b. Thickness: 1/4"
 - c. Side Brackets: As required, to be agreed with the Engineer prior to fabrication:
 - 1. Edges: All edges to be polished and rounded off
 - 2. Joints: Plate sections to be butt jointed
 - 3. Installed level: To be aligned flush with poured concrete sidewalk
- B. Cover Plate:
 - a. Material and Finish: Grade 304 Stainless Steel, Textured 'Durbar' plate
 - b. Thickness: 1/4"
 - c. Edges: All edges to be polished and rounded off
 - d. Finished installed level: To be aligned flush with poured concrete sidewalk
 - e. Mounting Screws:
 - 1. Exposed to Sidewalk: To be stainless steel with tamper proof torx' head or approved equivalent
 - 2. Beneath Sidewalk: To be stainless steel socket head
- C. Temporary Cover Plate Mounting Brackets:
 - a. Material and Finish: Grade 304 Stainless Steel with mill finish
 - b. Nominal Thickness: As required by Contractor to safely support imposed sidewalk live loads
 - c. Bolt Fixings: To be stainless steel, sized and configured to support imposed live loads

8.52PT.5. METHOD.

- A. Fabrication:
 - a. Plates cut and seam welded directly to each other
 - b. Side brackets spot welded directly to plates
 - c. Provide all necessary Jigs for placement of paving trays relative to Totem foundation plates, provide a minimum of 6 jigs per Totem type.

8.52FP.6. MEASUREMENT. The quantity to be measured for payment shall be the number of new paving trays, of each size and type listed below, actually installed to the satisfaction of the Engineer.

Type	Item	Length	Width
A	Paving Tray (Pathway Totem) Paving	1'-7 $\frac{1}{4}$ "	8 $\frac{1}{2}$ "
B	Tray (Area Totem)	2'-11 $\frac{1}{4}$ "	8 $\frac{1}{2}$ "
C	Paving Tray (Neighborhood Totem)	4'-3 $\frac{1}{4}$ "	8 $\frac{1}{2}$ "

8.52FP.7. PRICE TO COVER.

No separate payment will be made for the Paving Tray.

SECTION ROWB-04
CONSTRUCT 20' x 5' RIGHT OF WAY (R.O.W.) BIOSWALE TYPE 1C

ROWB-04.1 INTENT

This section describes the construction of a 20'x 5' R.O.W. BIOSWALES TYPE 1C, as shown on the Contract Drawings, the Standard Design and Guidelines for Green Infrastructure Practices(SFGI), the specifications, and the direction of the Engineer.

ROWB-04.2 DESCRIPTION

The Contractor shall be required to CONSTRUCT 20' x 5' R.O.W. BIOSWALE TYPE 1C, as shown on the SFGI's "STANDARD FOR 20'X5' R.O.W. BIOSWALE TYPE 1C – WITH STORMWATER CHAMBER" drawings and in accordance with the requirements of this Section, the **New York City Department of Transportation (NYCDOT) Standard Highway Specifications, New Sections** contained herein, and the directions of the Engineer.

Depth of bioswale shall not be greater than five (5) feet. This TYPE 1C bioswale shall have a storm water chamber.

ROWB-04.3 METHODS

- a. Clear and grub the area for bioswale, as needed, in accordance with the requirements of the following Item Nos.: 4.16 AA, 4.16 AB, 4.16 AC, 4.16 ADE, 4.16 STUMP, 4.21, and 6.01 AC, as applicable; however, no separate payment will be made under these items for work being done in conjunction with this Item ROWB-04.
- b. Saw-cut and removal of existing asphalt, curb and sidewalk shall be done in accordance with the requirements of the following Item Nos.: 6.02 AAN, 6.03 AA, 6.55, 8.02 A, 8.02 B, and GI-5.21, as applicable; however, no separate payment will be made under these items for work being done in conjunction with this Item ROWB-04.
- c. Excavate the bioswale location in accordance with the requirements of the following Item Nos.: GI-4.02, GI-4.03 and 6.02 AAN, as applicable; however, no separate payment will be made under these items for work being done in conjunction with this Item ROWB-04.
- d. Furnish and install High Density Polyethylene (HDPE) barrier and furnish and install HDPE pipe for hydraulically connected R.O.W. Bioswales, in accordance with the requirements of the following Item Nos.: GI-2.08, GI-2.16S and GI-2.16P, as applicable; however, no separate payment will be made under these items for work being done in conjunction with this Item ROWB-04.
- e. Furnish and Install geotextile fabric in accordance with the requirements of Item No. GI-2.09; however, no separate payment will be made under this item for work being done in conjunction with this Item ROWB-04.

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- f. Work shall include sleeving of any existing house utilities. Sleeving details are provided in the contract drawings and the work shall be done in accordance with the requirements of Item No. GI-5.35; however, no separate payment will be made under this item for work being done in conjunction with this Item ROWB-04.
- g. Furnish and Install open-graded stone base in accordance with the requirements of Item No. GI-2.07; however, no separate payment will be made under this item for work being done in conjunction with this Item ROWB-04.
- h. Furnish and install HDPE Stormwater Chamber with the bedding and cover as shown on the standard details and in accordance with the requirements of Item No. GI-2.19; however, no separate payment will be made under this item for work being done in conjunction with this Item ROWB-04.
- i. Furnish and Install Engineered Soil in accordance with the requirements of Item No. GI-2.13; however, no separate payment will be made under this item for work being done in conjunction with this Item ROWB-04.
- j. Furnish and Install concrete header in accordance with the requirements of Item No. 6.09; however, no separate payment will be made under this item for work being done in conjunction with this Item ROWB-04.
- k. Furnish and Install precast or poured reinforced concrete aprons in accordance with the requirements of Item No. GI-2.03; however, no separate payment will be made under this item for work being done in conjunction with this Item ROWB-04.
- l. Furnish and Install precast porous concrete in roadway in accordance with the requirements of Item Nos.: GI-2.04G and GI-2.04W, as applicable; however, no separate payment will be made under these items for work being done in conjunction with this Item ROWB-04.
- m. Furnish and install new curb in accordance with the requirements of the following Item Nos.: 4.07 BA, 4.07 CB, 4.08 AA, 4.09 AD, 4.09 BD, and 8.02 B, as applicable. The Contractor is advised that the new curb is required to nearest expansion joint on either side of the bioswale and that no separate payment will be made under these items for work being done in conjunction with this Item ROWB-04.
- n. Furnish and install new sidewalk in accordance with the requirements of the following Item Nos.: 4.13 GI-AA, 4.13 GI-AB, 4.13 GI-BA, 4.13 GI-BB, 6.07 AA, and 8.02 A, as applicable. The Contractor is advised that a full new sidewalk flags around the perimeter of the bioswale is required and that no separate payment will be made under these items for work being done in conjunction with this Item ROWB-04.

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- o. Furnish and install L-shaped edging and stone strip bed with and without epoxy bonding agent in accordance with the requirements of the following Item Nos.: GI-2.06 and GM-30; however, no separate payment will be made under these items for work being done in conjunction with this Item ROWB-04.
- p. Restore in kind all removed pavement along the new curb and adjacent to the precast porous concrete slab and concrete apron. This work shall be done in accordance with the following Item Nos.: 4.02 AF-R, 4.02 CB, 4.04 H, 6.44, and 6.51 GI-BD, as applicable; however, no separate payment will be made under these items for work being done in conjunction with this Item ROWB-04.
- q. Furnish and install stone filled gabion in accordance with the requirements of Item No. GI-2.17; however, no separate payment will be made under this item for work being done in conjunction with this Item ROWB-04.
- r. Perform all final grading and landscaping activities in accordance with the requirements of Item Nos.: 4.19, 4.20, GI-2.14, PM-03, PM-05, PM-09, PM-12, PM-15, PM-15A, PM-16, PM-17, PM-18, PM-19, PM-20, PM-21, PM-22, PM-24, 4.11 CA, 4.19, and 4.20, as applicable; however, no separate payment will be made under these items for work being done in conjunction with this Item ROWB-04. The Contractor is advised that the cost of the tree planting is not included in this activity and, if required, will be paid for separately.
- s. Furnish and install steel tree pit guards in accordance with the requirements of Item No. GI-2.10; however, no separate payment will be made under this item for work being done in conjunction with this Item ROWB-04.
- t. Perform all watering and weeding during the Period of Maintenance as required under Section GI-5.09 and no separate payment will be made under these items for work being done in conjunction with this Item ROWB-04. The Period of Maintenance for each individual planting shall begin upon planting or transplanting and shall end twenty-four (24) months thereafter.
- u. Perform Maintenance of Site in accordance with the requirements of Item No. 7.13 -GI; however, no separate payment will be made under this item for work being done in conjunction with this Item ROWB-04.
- v. Perform Maintenance and Protection of Traffic in accordance with the requirements of Item No. 6.70 -GI, however, no separate payment will be made under this item for work being done in conjunction with this Item ROWB-04.

Modified for HWPLZ011K on 05/26/2016

ROWB-04.4 METHOD OF MEASUREMENT.

The quantity to be measured for payment for Item ROWB-04 - CONSTRUCT 20' x 5' R.O.W. BIOSWALE TYPE 1C, shall be the number of Type 1C bioswales actually constructed at the site to the satisfaction of the Engineer.

Payment for non-standard sized 20'x5' R.O.W. Bioswale Type 1C, where the length varies from 17 feet to 20 feet and width varies from 4 feet to 6 feet (as shown on the Dimension Schedule for Variable Size R.O.W. Bioswales and R.O.W. Rain Gardens in the Department of Environmental Protection (DEP) Standard Design and Guidelines for Green Infrastructure Practices) will be paid for as a proportional cost of the unit price bid for Standard 20'x5' R.O.W. Bioswale Type 1C, normalized by square footage.

ROWB-04.5 PRICE TO COVER.

The unit price bid for Item, construction of 20' x 5' R.O.W. BIOSWALE TYPE 1C, shall cover the cost of furnishing all labor, materials, equipment, insurance and incidentals necessary for construction of a Type 1C bioswale; all in accordance with the Contract Drawings, the specifications and the directions of the Engineer.

No separate or additional payment will be made for any items of work specified in Subsection ROWB-04.3, above, with the exception of this Item ROWB-04 and tree planting which shall be paid separately under their respective bid items.

Payment with be made under:

Item No.	Item	Pay Unit
ROWB-04	CONSTRUCT 20' x 5' R.O.W. BIOSWALE TYPE 1C	EACH

Modified for HWPLZ011K on 05/26/2016

**SECTION 4.13 GI-A
(NOT A PAY ITEM)
4" CONCRETE SIDEWALK**

4.13GI-A.1.INTENT. This section describes construction of 4" Concrete Sidewalk (Pigmented and Unpigmented) for installation of Sidewalk.

4.13GI-A.2.DESCRPTION. Concrete Sidewalk shall be of the width specified and shall be laid on a foundation six (6") inches thick.

Sidewalk shall consist of a single course of concrete four (4") inches thick, except in driveways and corner quadrants where it shall be seven (7") inches thick to be paid for under Item No. 4.13 GI-BA and 4.13 GI-BB, as appropriate.

4.13GI-A.3.MATERIALS AND METHODS. All materials and methods for Item Nos. 4.13 GI-AA and 4.13 GI-AB shall comply with the requirements of Item No. 4.13 AAS and 4.13 ABS, respectively, in Section 4.13 of the NYC Department of Transportation's Standard Highway Specifications.

4.13GI-A.4.MEASUREMENT AND PAYMENT. Payment for this work shall be deemed to be included in the unit price bid for item No. ROWB-04.

**SECTION 4.13 GI-B
(NOT A PAY ITEM)
7" CONCRETE SIDEWALK**

4.13GI-B.1. INTENT. This section describes construction of 7" Concrete Sidewalk (Pigmented and Unpigmented).

4.13GI-B.2. DESCRIPTION. Concrete Sidewalk shall be of the width specified and shall be laid on a foundation six (6") inches thick.

Sidewalk shall consist of a single course of concrete seven (7") inches thick.

4.13GI-B.3. MATERIALS AND METHODS. All materials and methods shall comply with the requirements of Item No. 4.13 BAS and 4.13 BBS, as appropriate, in Section 4.13 of the NYC Department of Transportation's Standard Highway Specifications, with the following modifications and additions:

Where new 7" concrete sidewalk on the new base cannot be installed due to clearance problems, the Engineer may recommend an alternate thinner concrete sidewalk slab be installed. Where the new alternate sidewalk slab is less than 7" thick but greater than 4", wire mesh reinforcement shall be installed in accordance with Section 4.14 of the Standard Highway Specifications. Where the new alternate sidewalk slab is greater than 3" thick but not greater than 4", a wire mesh reinforcement shall be installed in accordance with Section 4.14 and the concrete shall be Class A-40. Payment for alternate thicknesses of sidewalk slabs will be made at the unit price bid for 7" concrete sidewalk and no additional payment will be made for any wire mesh or increase in strength of concrete used.

4.13GI-B.4. MEASUREMENT AND PAYMENT. Payment for this work shall be deemed to be included in the unit price bid for item No. ROWB-04.

SECTION 6.51 GI-BD
(NOT A PAY ITEM)
PAVEMENT KEY ALONG CURB (3' TO 6' WIDE)

6.51GI-BD.1.Intent. This section describes the work of installing pavement keys in order to remove depressed or damaged wearing course, to facilitate storm water run off (without ponding) and to facilitate installation of new pavement.

6.51GI-BD.2.Description. The construction of pavement keys shall consist of cutting, milling, and removing a portion of the existing pavement to the required depth and width, generally next to curb or areas of poor pavement; all in accordance with the specifications and the directions of the Engineer.

6.51GI-BD.3.Methods. The Contractor shall saw-cut or chisel-cut, for a depth of 2", a joint line in the existing asphaltic concrete wearing course at limits of pavement keys as directed.

All grindings (millings) and excavation material removed under this Section shall be loaded directly into dump trucks and shall be satisfactorily disposed of by the Contractor, away from the site. No debris will be allowed to accumulate at the site.

All milling shall be done in conjunction with the installation of new or reset curb, precast porous concrete gutter, and aprons.

6.51GI-BD.4.Uses. Pavement Key along the curb line (various widths) shall be used in the following locations:

- 1) At all locations requiring gutter adjustments (3' to 6' wide) both inside and outside green infrastructure curb limits as directed. To lower roadway or reshape roadway to eliminate ponding.
- 2) To remove asphaltic bumps or depression or badly crazed areas in the roadway to provide positive surface flow into the green infrastructure inlet area.
- 3) Milling shall be to the required depth to facilitate an average of 2" resurfacing after the work is completed.
- 4) At locations to be excavated under other contract items.

6.51GI-BD.5. MEASUREMENT AND PAYMENT. Payment for this work shall be deemed to be included in the unit price bid for item No. ROWB-04.

**SECTION 6.70 –GI
(NOT A PAY ITEM)
MAINTENANCE AND PROTECTION OF TRAFFIC**

6.70GI.1.DESCRPTION. Under this section the Contractor shall be required to complete the work of maintaining and protecting all pedestrian and vehicular traffic within the limits of each Green Infrastructure, as defined in the Special Provisions (S – Pages) of this Project, to be constructed under the contract. This shall include, but not be limited to, furnishing, placing, relocating and removing, when directed, all necessary temporary warning and regulatory signs and temporary traffic control devices to re-route and protect traffic - all in accordance with an approved Maintenance and Protection of Traffic (MPT) Plan, the Contract Drawings, the specifications and directions of the Engineer.

Prior to performing any work in the Contract, if there are no MPT plans provided in the contract documents or the Contractor is proposing a change to the contract MPT plan, the Contractor shall prepare and submit an MPT Plan for the work required under the contract. The MPT Plan shall be prepared by a New York State Licensed Professional Engineer who is a qualified and experienced in Traffic Engineering and Work Site Safety. The MPT Plan shall include all necessary and required legal precautions for the protection of traffic and for the safety of the public, and shall be subject to approval by the New York City Department of Transportation's Office of Construction Mitigation and Coordination (OCMC) and the Engineer.

The provisions of this section are supplementary to and do not abrogate the General Conditions (Section 1.06) of the New York City Department of Transportation (NYCDOT) Standard Highway Specifications, the General Notes on the Contract Drawings relating to maintenance and protection of traffic following this Section or the OCMC Traffic Stipulations. Furthermore, any conditions pertaining to the maintenance and protection of traffic during the life of the contract which are addressed in the General Conditions and in the General Notes on the Contract Drawings, whether or not addressed under this Section, shall be deemed as having been addressed under this Section.

6.70GI.2.MATERIALS AND METHODS. All materials and methods shall comply with the requirements of Section 6.70 of the Standard Highway Specifications, as applicable, with the exception that chain link fence shall comply with the temporary fencing requirements under Section GI-5.14, contained herein.

6.70GI.3.NONCONFORMANCE. If the Contractor fails to maintain and protect traffic adequately and safely for a period of three (3) hours at a Green Infrastructure under construction, the Engineer may correct the adverse conditions by any means he deems appropriate, and shall deduct the cost of the corrective work from any monies due the Contractor.

However, where major nonconformance with the requirements of this specification is noted by the Engineer, and prompt Contractor compliance is deemed not to be obtainable, all contract work may be stopped by direct order of the Engineer, regardless of whether corrections are made by the Engineer as stated in the paragraph above.

Furthermore, in addition to the remedies specified above, in the event the Contractor fails to comply, within three (3) consecutive hours after written notice from the Engineer, with the requirements of the contract and the specifications in the matter of providing facilities and services for the maintenance and protection of traffic, the Contractor shall pay to the City of New York, until such notice has been complied with or rescinded, the sum specified in Schedule A per calendar day, for each instance of such failure, as liquidated damages and not as a penalty, for such default.

Any money due the City of New York under this provision shall be deducted from the amounts due or to become due to the Contractor for work performed under the contract.

6.70GI.4.MEASUREMENT AND PAYMENT. Payment for this work shall be deemed to be included in the unit price bid for item No. ROWB-04.



**NEW YORK CITY DEPARTMENT OF
DESIGN + CONSTRUCTION**

STANDARDS

MAINTENANCE & PROTECTION OF TRAFFIC

FOR CONSTRUCTION OF GREEN INFRASTRUCTURE IN THE RIGHT-OF-WAY

PREPARED BY

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

JULY 2015

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MPT-GI.1

CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION

MPT-GI.1

MAINTENANCE AND PROTECTION OF TRAFFIC
FOR CONSTRUCTION OF GREEN INFRASTRUCTURE IN THE R.O.W.
MPT NOTES - APPLICABLE TO ALL STAGES

GENERAL NOTES

1. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF TRANSPORTATIONS OFFICE OF CONSTRUCTION MITIGATION AND CONTROL (TELEPHONE NO. 1-212-899-9621) AND THE DIVISION OF TRAFFIC & PLANNING (TELEPHONE NO. 1-718-433-3370) AT LEAST 20 DAYS BEFORE THE START OF CONSTRUCTION TO SCHEDULE A PRE-CONSTRUCTION MEETING.
2. PRIOR TO ANY WORK PERMITS BEING ISSUED, A PRE-CONSTRUCTION MEETING WILL BE HELD TWENTY (20) DAYS IN ADVANCE BY CONSTRUCTION DIVISION. AT THAT TIME, THE CONTRACTOR SHALL PROVIDE A CONSTRUCTION SCHEDULE TO THE ENGINEER. ARRANGEMENTS FOR THE MEETING WILL BE COORDINATED BY THE COMC-STREETS.
3. CONSTRUCTION SEQUENCE: UNLESS OTHERWISE DIRECTED OR APPROVED BY THE ENGINEER, THE CONSTRUCTION SHALL BE COMPLETED IN THE FOLLOWING sequence:
CONSTRUCTION OF GREEN INFRASTRUCTURE PRACTICES (BIGSWALE, RAIN GARDEN, STORMWATER GREENSTREET)
CONSTRUCTION OF NEW CURBS
CONSTRUCTION OF NEW SIDEWALKS
CONSTRUCTION OF ROADWAY PAVEMENT
THE CONTRACTOR WILL BE PERMITTED TO MODIFY, ADJUST AND/OR COMBINE STAGES SUBJECT TO THE APPROVAL OF THE ENGINEER.
4. SUBSEQUENT STAGES MUST COMMENCE WITHIN SEVEN (7) CALENDAR DAYS OF THE COMPLETION OF THE PREVIOUS STAGE WITHIN EACH BLOCK, UNLESS OTHERWISE APPROVED BY THE CITY.
5. AFTER A SATISFACTORY START OF THE WORK AT ONE LOCATION, AS APPROVED BY THE ENGINEER, THE CONTRACTOR MAY BE PERMITTED TO ESTABLISH MULTIPLE WORK AREAS AS AND WHERE APPROVED BY THE ENGINEER.
6. PEDESTRIANS SHALL BE PROTECTED FROM ALL EXCAVATION AREAS, THROUGH THE USE OF AN APPROVED BARRIER, FENCING OR OTHER TEMPORARY DEVICE, AND IN A MANNER APPROVED BY THE ENGINEER.
7. TO PERMIT ADEQUATE VISIBILITY AT INTERSECTION AREAS ALL BARRICADES SHALL BE PLACED SO AS NOT TO HINDER PEDESTRIAN OR VEHICULAR SIGHT LINES. SIMILARLY, NO SHEETING SHALL EXTEND HIGHER THAN 2' ABOVE PAVEMENT LEVEL WITHIN 50 FEET OF AN INTERSECTION.
8. EXCAVATIONS SHALL BE COMPLETELY ENCLOSED WITH TIMBER CURBS, LIGHTED BARRICADES AND TEMPORARY FENCE UNLESS OTHERWISE SHOWN HEREIN OR DIRECTED BY THE ENGINEER. ALL BOUNDARIES BETWEEN CONSTRUCTION WORK AREAS AND PEDESTRIAN ROUTES ALONG SIDEWALKS SHALL BE CLEARLY AND CONTINUOUSLY DELINEATED WITH PEDESTRIAN STEEL BARRICADES AS SHOWN ON THE MAINTENANCE AND PROTECTION PLANS AND AS APPROVED OR DIRECTED BY THE ENGINEER.

9. PEDESTRIAN CROSSINGS OVER EXCAVATIONS, WHEN REQUIRED, SHALL BE CONSTRUCTED WITH STEEL PLATES LINED WITH TEMPORARY FENCE ATTACHED ON BOTH SIDES, (NO DIRECT PAYMENT).
10. MAINTENANCE OF PEDESTRIAN ACCESS TO ALL ABUTTING PROPERTIES, ENTRANCES, AND EXITS FROM DWELLINGS, EMERGENCY EXITS AND PEDESTRIAN USAGE OF GROSSWALK AND SIDEWALK AREAS BOTH NEW AND EXISTING SHALL BE CONTINUOUS AT ALL TIMES.
11. CONTRACTOR SHALL PROVIDE ACCESS FOR EMERGENCY TRAFFIC AT ALL TIMES UPON DEMAND. THE CONTRACTOR SHALL BE REQUIRED TO MOVE AND RESTORE BARRICADES AS ORDERED BY THE ENGINEER FOR EMERGENCY ACCESS AT NO DIRECT PAYMENT.
12. THE CONTRACTOR SHALL SUPPLY, INSTALL, RELOCATE AND MAINTAIN SIGNS AND OTHER APPROVED DEVICES FOR WARNING, CONTROLLING, ROUTING, DIRECTING AND DETOURING TRAFFIC AS INDICATED AND AS DIRECTED BY THE ENGINEER AND IN ACCORDANCE WITH "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" - THE EXACT LOCATION, SIZE, WORDING AND DETAILS OF TO APPROVAL BY THE ENGINEER.
13. ALL SIGNS AND BARRICADES SHALL CONFORM TO STANDARDS SPECIFIED IN THE NATIONAL "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES" (EXCEPT WHERE OTHERWISE REQUIRED HEREIN) WHERE APPLICABLE AND APPROVED BY THE ENGINEER.
14. ALL ADVANCE WARNING SIGNS SHALL BE INSTALLED BETWEEN 150 AND 200 FEET BEFORE THE CONSTRUCTION. ALL "END ROAD WORK" SIGNS SHALL BE INSTALLED 200 FEET AFTER THE CONSTRUCTION. TWO (2) 24"x24" ORANGE FLEXIBLE PLASTIC FLAGS SHALL BE ATTACHED TO THE TWO SIDE CORNERS OF EACH DIAMOND SHAPED ADVANCE WARNING SIGN.
15. ALL IDENTIFICATION MARKINGS ON BARRELS MUST NOT FACE TRAFFIC AND MUST BE BELOW THE BOTTOM REFLECTORIZED BAND.
16. THE CONTRACTOR IS REQUIRED TO INSTALL TEMPORARY PAVEMENT MARKINGS AFTER THE EXISTING MARKINGS ARE REMOVED. THIS OPERATION SHALL BE DONE ON THE SAME DAY, WHEN THE TEMPORARY MARKINGS ARE NO LONGER NECESSARY, THEY MUST BE OBLITERATED BY SCARIFICATION, UNTIL THEY ARE NO LONGER VISIBLE.
17. NOTWITHSTANDING PROVISIONS HEREIN CONTAINED, IT REMAINS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE MINOR ADDITIONAL MEASURES THAT ARE NECESSARY TO PREPARE FOR AND MAINTAIN THE SAFETY OF VEHICULAR TRAFFIC AND PEDESTRIANS DURING CONSTRUCTION. THE PROVISION AND USE OF SUPPLIES SUCH AS TRAFFIC CONES, HIGH VISIBILITY RIBBONS, AND FLAGS WHERE NECESSARY OR DIRECTED BY THE ENGINEER, SHALL BE CONSIDERED AS MINOR AND INCIDENTAL ITEMS. PAYMENT TO BE INCLUDED IN THE PRICE BID FOR ALL SCHEDULED ITEMS.
18. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COOPERATE WITH OTHER CONTRACTORS WHO HAVE AN ON-GOING STREET IMPROVEMENT CONSTRUCTION IN THE AREA AND/OR WITHIN THE PROJECT LIMITS AND SHALL SO ACCORDINGLY ARRANGE HIS OWN SCHEDULE OF CONSTRUCTION IN SUCH A TIME FRAME AS NOT TO DISRUPT OR INTERFERE WITH THE WORKABILITY OF EITHER MAINTENANCE OF TRAFFIC PLAN.
19. NO DEVIATION OR DEPARTURE FROM THESE STIPULATIONS WILL BE PERMITTED WITHOUT THE PRIOR WRITTEN APPROVAL FROM THE COMC-STREETS. REQUEST FOR SUCH MODIFICATIONS SHALL BE SUBMITTED TO THE OFFICE OF CONSTRUCTION MITIGATION AND COORDINATION-STREETS N.Y.C.D.O.T. A MINIMUM OF TWENTY (20) DAYS IN ADVANCE FOR CONSIDERATION.
20. THE CONTRACTOR SHALL PROVIDE STORAGE AREAS OFF THE JOB SITE AS REQUIRED. (NO SEPARATE PAYMENT). SEE MAINTENANCE OF TRAFFIC DEVICES REQUIRED AT THESE STORAGE AREAS.
21. AS THE WORK PROGRESSES, TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE RELOCATED AND THE CONTRACTOR SHALL REMOVE OR COVER ALL UNUSED SIGNS OR SIGNS NOT APPLICABLE FOR CURRENT OPERATIONS.
22. FOR ADDITIONAL INFORMATION SEE: "SPECIAL PROVISIONS" OF THE SPECIFICATIONS; GENERAL NOTES; HIGHWAY NOTES; AND UTILITY NOTES, CONTAINED IN THE CONTRACT DRAWINGS.
23. THE CONTRACTOR IS REQUIRED TO MAINTAIN EXISTING BICYCLE FACILITIES WITH A SMOOTH RIDING SURFACE AND FREE OF DEBRIS OR OTHER IMPEDIMENTS, AT ALL TIMES. IF THIS IS NOT POSSIBLE A TEMPORARY BICYCLE DETOUR PLAN SHALL BE PREPARED BY THE CONTRACTOR AND SUBMITTED TO D.O.T. / O.C.M.C. FOR APPROVAL.
24. FOR ANY CHANGES IN PARKING REGULATIONS DURING THE CONSTRUCTION, IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSTALL, MAINTAIN AND RELOCATE THE EXISTING SIGNS, IN ACCORDANCE WITH N.Y.C. - D.O.T. STIPULATIONS OF ADVANCED NOTICE.
25. THE CONTRACTOR SHALL NOTIFY NYCDOT 48 HOURS PRIOR TO THE START OF WORK TO HAVE A PARKING METERS AND JOB NUMBER METERS REMOVED. CONTRACTOR SHALL CONTACT MR. JOHN PREMUS, ADMINISTRATIVE TRANSPORTATION COORDINATOR, NYC DEPARTMENT OF TRANSPORTATION, DIVISION OF TRAFFIC OPERATIONS, 58-50 57TH ROAD, 2ND FLOOR, MASPETH, NY 11378, PH#718.894.1835, FAX# 718.894.8397, EMAIL: JPREMUS@DOT.NY.C.GOV .THE FOLLOWING INFORMATION MUST BE GIVEN TO NYCDOT: (1) PARKING/METER NUMBERS; (2) LOCATION OF METERS AND (3) DATE WHEN METERS CAN BE RE-INSTALLED.

MPT-GI.2

CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION

MPT-GI.2

**MAINTENANCE AND PROTECTION OF TRAFFIC
FOR CONSTRUCTION OF GREEN INFRASTRUCTURE IN THE R.O.W.
MPT NOTES**

CONSTRUCTION OF RIGHT-OF-WAY BIOSWALES,
RAIN GARDENS AND STORMWATER GREENSTREETS

1. THE CONTRACTOR WILL BE PERMITTED TO OCCUPY ONE LANE OF THE ROADWAY IMMEDIATELY ADJACENT TO THE CURB TO EXCAVATE AND CONSTRUCT NEW GREEN INFRASTRUCTURE PRACTICES AS APPROVED AND DIRECTED BY THE ENGINEER. THE CONTRACTOR WILL BE PERMITTED TO OCCUPY UP TO 5' INTO THE DRIVING LANE OF THE ROADWAY IMMEDIATELY ADJACENT TO THE STORMWATER GREENSTREET TO EXCAVATE AND CONSTRUCT THE STORMWATER GREENSTREETS AS APPROVED AND DIRECTED BY THE ENGINEER.
2. THE CONTRACTOR SHALL INITIALIZE THE CONSTRUCTION OF NEW GREEN INFRASTRUCTURE PRACTICES IN A WORK AREA OF 60 FEET MAX, UNLESS DIRECTED AND APPROVED BY AN ENGINEER. AFTER A SATISFACTORY START OF THE WORK, AND AS APPROVED AND DIRECTED BY THE ENGINEER, THE CONTRACTOR WILL BE PERMITTED TO EXTEND THE WORK AREA TO THE MAXIMUM LENGTH OF 120 FEET FOR STREET SEGMENTS CONTAINING MULTIPLE GREEN INFRASTRUCTURE PRACTICES.
3. PLACE PLASTIC BARRELS TO DELINEATE THE WORK AREA WIDTH AND PEDESTRIAN STEEL BARRICADES FOR THE PROTECTION OF PEDESTRIANS AS SHOWN IN TYPICAL PLANS AND AS DIRECTED BY THE ENGINEER.
4. THE CONTRACTOR SHALL CLOSE THE SIDEWALK AND DIVERT PEDESTRIANS AROUND THE WORK AREA AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
5. MAINTENANCE OF PEDESTRIAN ACCESS TO ALL ABUTTING PROPERTIES, ENTRANCES AND EXITS FROM DWELLINGS, EMERGENCY EXIT AREAS SHALL BE CONTINUOUS AT ALL TIMES.
6. UPON COMPLETION OF EACH DAY'S WORK THE CONTRACTOR SHALL RELOCATE THE BARRELS AND BARRICADES ADJACENT TO THE CURB. THERE SHALL BE NO DIRECT PAYMENT FOR THE DAILY RELOCATION OF BARREL AND BARRICADES HEREUNDER.
7. CONTRACTOR SHALL PROVIDE LOCAL PEDESTRIAN ACCESS AT ALL TIMES FOR NORMAL BUILDING ACTIVITY.
8. WORKING SIMULTANEOUSLY ON BOTH SIDES OF THE STREET WILL NOT BE PERMITTED.
9. CONTRACTOR SHALL MAINTAIN MPT AROUND BACKFILLED ROWS UNTIL INSTALL OF STEEL TREE PIT GUARD.
10. INLET AND OUTLETS SHALL BE SAND BAGGED UNTIL COMPLETION OF ALL BACKFILLING AND JUTE MESH INSTALLATION AT GREEN INFRASTRUCTURE PRACTICES HAVE BEEN COMPLETED.

CONSTRUCTION OF NEW CURBS

1. THE CONTRACTOR WILL BE PERMITTED TO OCCUPY ONE LANE OF THE ROADWAY IMMEDIATELY ADJACENT TO THE CURB LINE TO REMOVE EXISTING CURB AND CONSTRUCT NEW CURB AS APPROVED AND DIRECTED BY THE ENGINEER.
2. THE CONTRACTOR SHALL INITIALIZE THE CONSTRUCTION OF NEW CURBS IN A WORK AREA OF 200 FEET ONLY. AFTER A SATISFACTORY START OF THE WORK, AS APPROVED AND DIRECTED BY THE ENGINEER, THE CONTRACTOR WILL BE PERMITTED TO EXTEND THE WORK AREA TO THE MAXIMUM LENGTH OF 600 FEET.
3. PLACE PLASTIC BARRELS TO DELINEATE THE WORK AREA WIDTH AND PEDESTRIAN STEEL BARRICADES FOR THE PROTECTION OF PEDESTRIANS AS SHOWN IN TYPICAL PLANS AND AS DIRECTED BY THE ENGINEER.
4. PLACE CONSTRUCTION SIGNS AS SHOWN IN TYPICAL PLANS AND AS REQUIRED BY THE ENGINEER.
5. MAINTENANCE OF PEDESTRIAN ACCESS TO ALL ABUTTING PROPERTIES, ENTRANCES AND EXITS FROM DWELLINGS, EMERGENCY EXIT AREAS SHALL BE CONTINUOUS AT ALL TIMES.
6. UPON COMPLETION OF CURB WORK AT EACH LOCATION THE CONTRACTOR SHALL BACKFILL AROUND CURB AND PLACE 4" ASPHALTIC CONCRETE MIXTURE TO RESTORE STREET. RESTORE SIDEWALK WITH 2" ASPHALTIC CONCRETE MIXTURE AT CORNERS ONLY WHERE DIRECTED BY THE ENGINEER. MAINTAIN PEDESTRIAN TRAFFIC AT CROSSWALK AREAS.
7. UPON COMPLETION OF EACH DAY'S WORK THE CONTRACTOR SHALL RELOCATE THE BARRELS AND BARRICADES ADJACENT TO THE CURB. THERE SHALL BE NO DIRECT PAYMENT FOR THE DAILY RELOCATION OF BARREL AND BARRICADES HEREUNDER.
8. WORKING SIMULTANEOUSLY ON BOTH SIDES OF THE STREET WILL NOT BE PERMITTED.

CONSTRUCTION OF ROADWAY PAVEMENT

1. MAINTAIN AT LEAST ONE PEDESTRIAN CROSSWALK AT EACH CORNER. PEDESTRIAN TRAFFIC SHALL BE DETOURED AROUND WORK ZONE.
2. MAINTENANCE OF PEDESTRIAN ACCESS TO ALL ABUTTING PROPERTIES, ENTRANCES AND EXITS FROM DWELLINGS, AND PEDESTRIAN USAGE OF THE SIDEWALK AREAS, SHALL BE CONTINUOUS AT ALL TIMES.
3. AFTER THE COMPLETION OF NEW PAVEMENT BASE AND CURING, RAMP AROUND MANHOLE HEADS WITH TEMPORARY ASPHALTIC MIXTURE. REMOVE BARRICADES, BARRELS AND OTHER TEMPORARY DEVICES AND OPEN THE ROADWAY FOR TRAFFIC, AS DIRECTED BY THE ENGINEER.
4. AFTER COMPLETION OF PAVEMENT IN THE WORK AREA, THE CONTRACTOR SHALL REMOVE BARRICADES, BARRELS, FENCING AND CONSTRUCTION SIGNS. OPEN FULL ROADWAY TO TRAFFIC AS DIRECTED BY THE ENGINEER.

CONSTRUCTION OF NEW SIDEWALKS

1. SIDEWALK CONSTRUCTION SHALL PROCEED IMMEDIATELY UPON COMPLETION OF CURB AS DIRECTED BY THE ENGINEER.
2. THE CONTRACTOR SHALL PROVIDE AND INSTALL BARRICADES, LIGHTS AND WARNING SIGNS TO DELINEATE THE WORK AREAS AS SHOWN ON PLAN.
3. THE CONTRACTOR WILL BE PERMITTED TO OCCUPY ONE LANE OF THE ROADWAY IMMEDIATELY ADJACENT TO THE CURB TO REMOVE EXISTING SIDEWALK AND CONSTRUCT NEW SIDEWALK AS APPROVED AND DIRECTED BY THE ENGINEER.
4. THE CONTRACTOR SHALL CLOSE THE SIDEWALK AND DIVERT PEDESTRIANS AROUND THE WORK AREA AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
5. THE CONTRACTOR SHALL FURNISH, INSTALL AND REMOVE TEMPORARY PEDESTRIAN PASSAGeways, AND PROVIDE TYPICAL PLAN TO FACILITATE THE FLOW OF PEDESTRIAN TRAFFIC AND ACCESS TO PRIVATE PROPERTY AS AND WHERE DIRECTED BY THE ENGINEER.
6. THE CONTRACTOR SHALL LIMIT THE EXTENT OF EXISTING SIDEWALK REMOVED EACH DAY TO THE SAME AREA OF CONCRETE SIDEWALK THAT WILL BE REPLACED THE FOLLOWING DAY. NO UNPROTECTED EXCAVATION SHALL REMAIN AT THE END OF EACH DAY'S WORK.
7. PROVIDE SMOOTH TRANSITION WITH ASPHALTIC CONCRETE MIXTURE BETWEEN SIDEWALK COMPLETED AND WORK YET TO BE STARTED.
8. CONTRACTOR SHALL PROVIDE LOCAL PEDESTRIAN ACCESS AT ALL TIMES FOR NORMAL BUILDING ACTIVITY.
9. AFTER COMPLETING THE WORK IN THE SIDEWALK AREA THE CONTRACTOR SHALL REMOVE ALL BARRICADES, LIGHTS, TEMPORARY SIGNS AND OTHER WARNING DEVICES AND ALL SURPLUS CONSTRUCTION MATERIAL, AND SHALL REOPEN THE SIDEWALK TO PEDESTRIAN TRAFFIC AS DIRECTED BY ENGINEER.

MPT-GI.3

CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION

MPT-GI.3

MAINTENANCE AND PROTECTION OF TRAFFIC
FOR CONSTRUCTION OF GREEN INFRASTRUCTURE IN THE R.O.W.
LEGEND AND NOTES

NAME	SIGN	MUTCD CODE	COLOR CODE	SIZE	DESCRIPTION
(A)		W20-1	A	36"X36"	ROAD WORK AHEAD
(B)		W20-2	A	36"X36"	DETOUR AHEAD
(C1)		M4-9	A	30"X24"	DETOUR (WITH ARROW)
(C2)		M4-9L	A	30"X24"	DETOUR (WITH LEFT ARROW)
(C3)		M4-9R	A	30"X24"	DETOUR (WITH RIGHT ARROW)
(DL)		W1-4L	A	30"X30"	LARGE ARROW KEEP LEFT
(DR)		W1-4R	A	30"X30"	LARGE ARROW KEEP RIGHT
(E)		R11-2	B	48"X30"	ROAD CLOSED
(F)		R11-3a	B	80"X30"	ROAD CLOSED (EXCEPT LOCAL & EMERGENCY TRAFFIC)
(GL)		W1-6L	A	48"X24"	ONE WAY (ARROW POINTING LEFT)
(GR)		W1-6R	A	48"X24"	ONE WAY (ARROW POINTING RIGHT)
(K)		R9-11	B	24"X12"	SIDEWALK CLOSED, CROSS HERE (WITH ARROW)
(L)		R9-10	B	24"X12"	SIDEWALK CLOSED, USE OTHER SIDE (WITH ARROW)
(M)		R3-2	B	24"X24"	NO LEFT TURN
(N)		R3-1	B	24"X24"	NO RIGHT TURN
(O)					END ROAD WORK
(P)		W6-3	A	30"X30"	TWO WAY TRAFFIC

NAME	SIGN	MUTCD CODE	COLOR CODE	SIZE	DESCRIPTION
(C)		W4-2L	A	36"X36"	CONSTRUCTION WORK AREA
(R)		R3-3	B	24"X24"	NO TURNS
(S)		W20-3	A	36"X36"	ROAD CLOSED AHEAD
(T)		M6-4	B	21"X15"	DOUBLE ARROW
(V)		M6-1	B	21"X15"	ARROW (LEFT OR RIGHT)
(W)		R3-5	B	30"X36"	RIGHT (LEFT) TURN ONLY
(X)		R9-9	B	24"X12"	SIDEWALK CLOSED, USE WALKWAY
(Y)		W20-5	A	36"X36"	LANE CLOSED AHEAD
(Z)		W20-7a	A	36"X36"	FLAGGER

LEGEND	
	CONSTRUCTION WORK AREA
	ONE WAY TRAFFIC (EXISTING)
	TWO-WAY TRAFFIC (EXISTING)
	TIMBER CURB (W/ ORANGE FENCING)
	PEDESTRIAN STEEL BARRICADE
	PLASTIC BARRELS
	TEMPORARY SIGN WITH TEXT
	R.O.W.
	RIGHT-OF-WAY BIOSWALES

NOTES:

- ALL SIGNS AS PER LATEST EDITION OF THE NATIONAL "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES"
- DIMENSIONS ARE SHOWN IN INCHES AND ARE SHOWN AS WIDTH X HEIGHT. THESE TABLES ARE FOR REFERENCE PURPOSES ONLY. FOR ADDITIONAL SIGNAGE NOT SHOWN ON THESE TABLES (REFER TO THE MUTCD).
- ALL SIGNS TO BE REFLECTORIZED.
- LETTERS ON SIGNS TO BE 5" HIGH.
- SIGN LOCATION TO BE DETERMINED BY THE ENGINEER.
- MOUNTING OF SIGNS TO BE AS DIRECTED AND APPROVED BY THE ENGINEER.

CODE	DESCRIPTION
A	BLACK LEGEND AND BORDER ON AN ORANGE BACKGROUND
B	BLACK LEGEND AND BORDER ON A WHITE BACKGROUND
C	WHITE LEGEND AND BORDER ON A GREEN BACKGROUND
D	WHITE LEGEND AND BORDER ON A RED BACKGROUND
E	RED LEGEND AND BORDER ON A WHITE BACKGROUND
F	BLACK LEGEND AND BORDER ON A FLUORESCENT YELLOW GREEN BACKGROUND

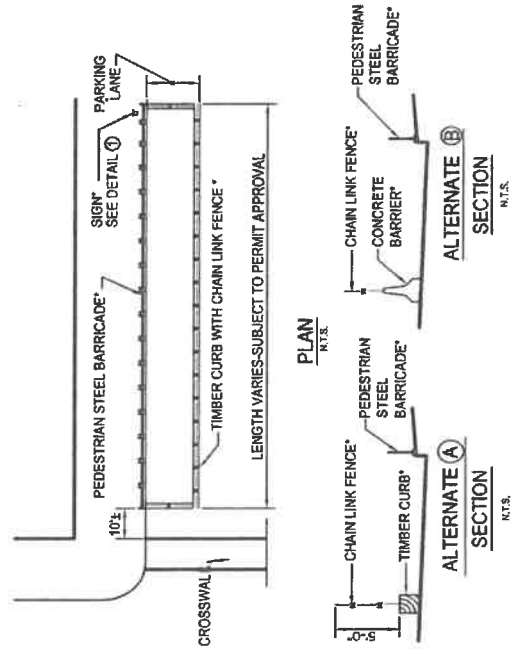
MPT-GI.4

CITY OF NEW YORK

DEPARTMENT OF DESIGN AND CONSTRUCTION

MAINTENANCE AND PROTECTION OF TRAFFIC FOR CONSTRUCTION OF GREEN INFRASTRUCTURE IN THE R.O.W. DETAILS

MPT-GI.4

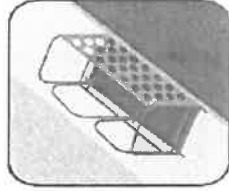


TEMPORARY STORAGE AREA
PROJECT NAME
CONTRACTOR'S NAME
FIELD OFFICE ADDRESS
TELEPHONE NO.

DETAIL 1
INFORMATION SIGN

NOTES

- NO DIRECT PAYMENTS FOR MAINTENANCE OF TRAFFIC CONTROL DEVICES.
- PROVIDE TAPER AT APPROACH END TO CHANNELIZE TRAFFIC PER NYSDOT MUTCD.
- TIMBER CURB WITH CHAIN LINK FENCE TO BE USED FOR LONG TERM STORAGE.
- FOR SHORT TERM STORAGE USE PLASTIC BARRIERS WITH ORANGE FENCING.



AFTER SOIL INSTALLATION, MULCH SHOULD BE PLACED ON THE ENGINEERED SOIL. PEDESTRIAN BARRICADES AND PROTECTIVE FENCING SHOULD BE INSTALLED UNTIL THE SITE IS FULLY PLANTED AND TREE GUARDS ARE INSTALLED.

TEMPORARY STORAGE AREA

TEMPORARY PROTECTION OF ROWB

MPT-GI.5

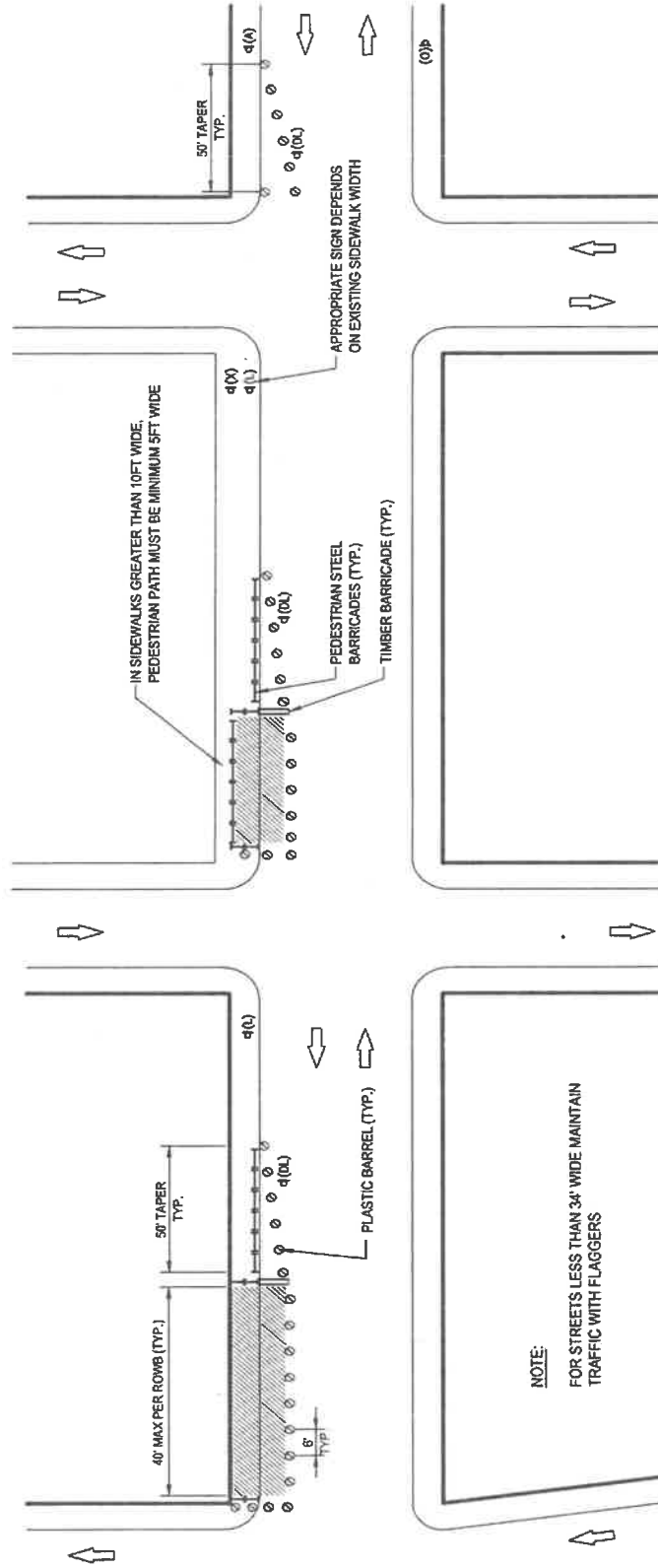
CITY OF NEW YORK

DEPARTMENT OF DESIGN AND CONSTRUCTION

MAINTENANCE AND PROTECTION OF TRAFFIC

CONSTRUCTION OF R.O.W. BIOSWALES/RAIN GARDENS - RESIDENTIAL AREAS

MPT-GI.5



NOTE:
FOR STREETS LESS THAN 34' WIDE MAINTAIN
TRAFFIC WITH FLAGGERS

TYPICAL PLAN

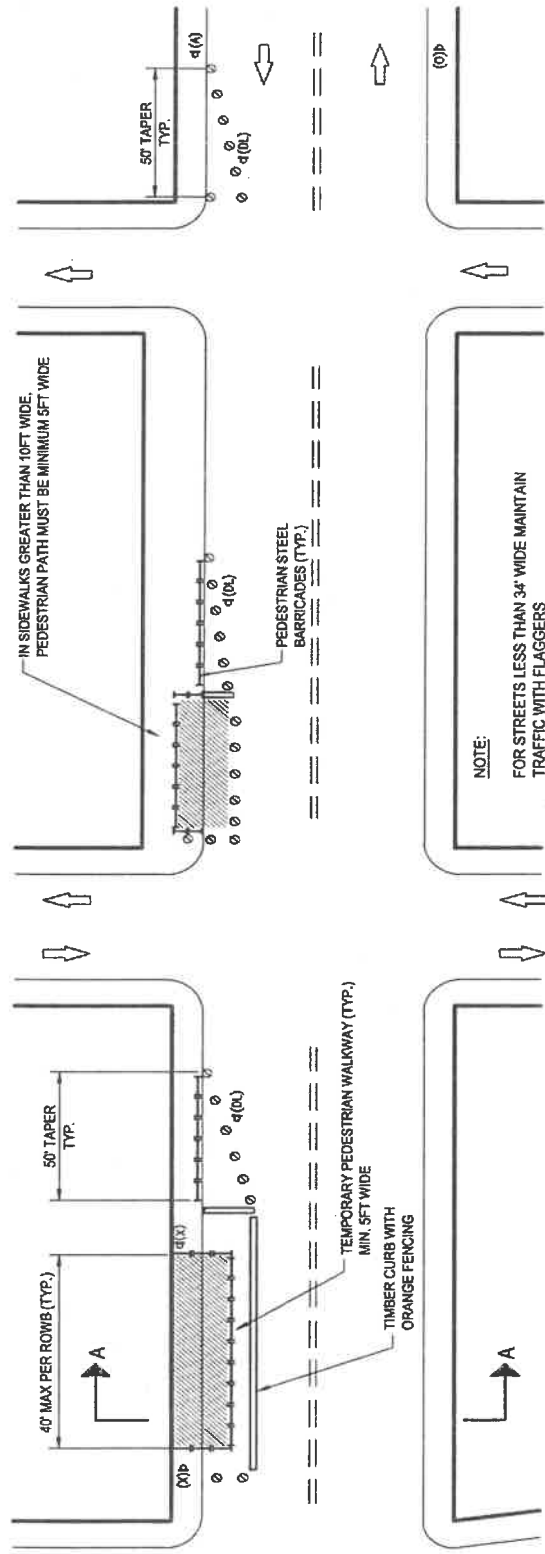
MPT-GI.6

CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION

MAINTENANCE AND PROTECTION OF TRAFFIC

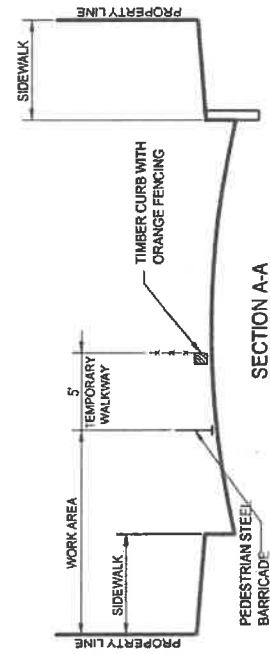
CONSTRUCTION OF R.O.W. BIOSWALES/RAIN GARDENS - HIGH DENSITY PEDESTRIAN TRAFFIC AREAS

MPT-GI.6



NOTE:
FOR STREETS LESS THAN 34' WIDE MAINTAIN
TRAFFIC WITH FLAGGERS

TYPICAL PLAN

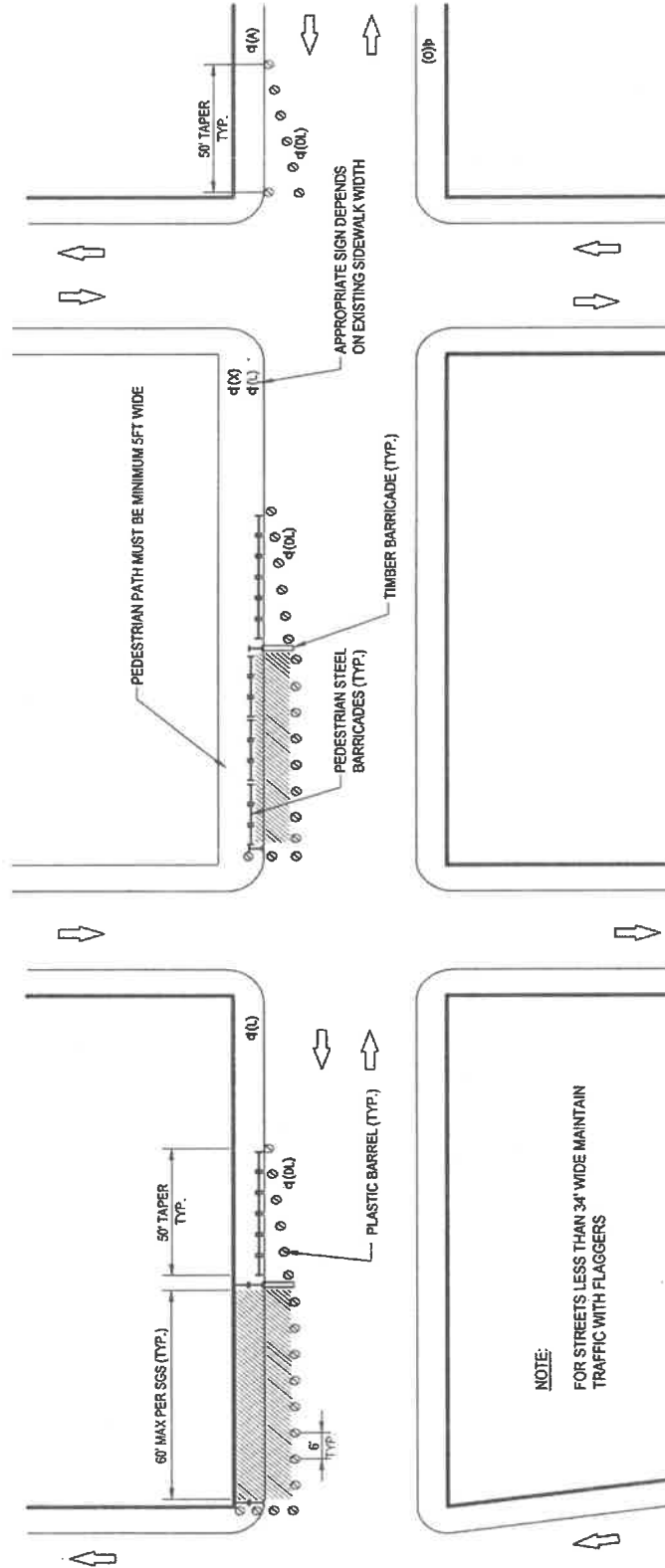


SECTION A-A

MPT-GI.7

MPT-GI.7

CITY OF NEW YORK
 DEPARTMENT OF DESIGN AND CONSTRUCTION
MAINTENANCE AND PROTECTION OF TRAFFIC
 CONSTRUCTION OF S.G.S. - RESIDENTIAL AREAS

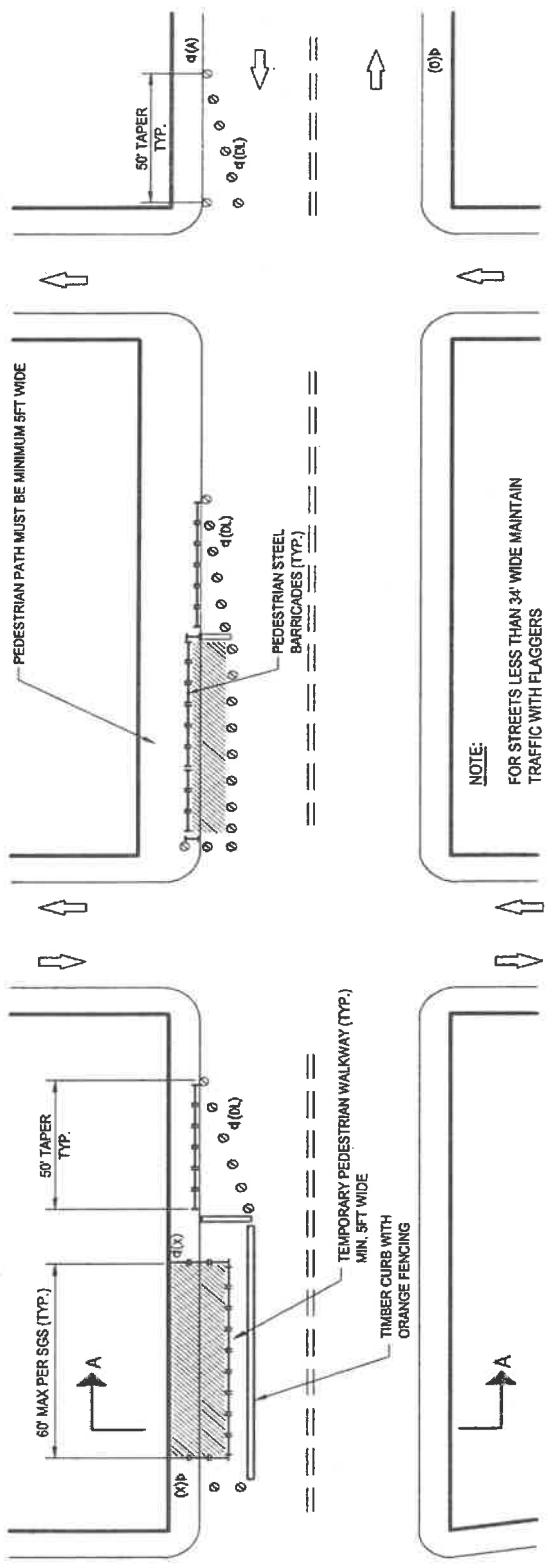


TYPICAL PLAN

MPT-GI.8

MPT-GI.8

CITY OF NEW YORK
 DEPARTMENT OF DESIGN AND CONSTRUCTION
MAINTENANCE AND PROTECTION OF TRAFFIC
 CONSTRUCTION OF S.G.S. - HIGH DENSITY PEDESTRIAN TRAFFIC AREAS



TYPICAL PLAN

SECTION A-A

(NO TEXT ON THIS PAGE)

**SECTION 7.13 –GI
(NOT A PAY ITEM)
MAINTENANCE OF SITE**

7.13GI.1. DESCRIPTION. This section describes the maintenance, protection and cleanup of the construction site at each Green Infrastructure facility. The Contractor is placed on notice that he shall be required to provide a safe and clean site throughout all phases of the work and during all of his operations at each Green Infrastructure facility, and further that the monitoring by the City of the Contractor's site maintenance, site protection and site clean up is considered for the purposes of the contract to be a project objective necessary to eliminate and/or mitigate public disruption and inconvenience, and to insure public health and safety. The Contractor shall therefore, at all times, conduct this operation in a manner which promotes a clean site and insures the convenience, safety and health of general users consisting of, but not limited to, the motorist, the pedestrian and the abutting property owners/tenants, as well as those of his own employees.

The provisions of this section are supplementary to and do not abrogate the General Conditions (Section 1.06) of the New York City Department of Transportation (NYCDOT) Standard Highway Specifications or the General Notes on the Contract Drawings relating to the protection and cleanup of the site, and the delivery and storage of materials at the site of each Green Infrastructure facility. Furthermore, any conditions pertaining to the maintenance, protection and cleanup of the construction site during the life of the contract which are addressed in the General Conditions and in the General Notes on the Contract Drawings, whether or not addressed under this Section, shall be deemed as having been addressed under this Section.

7.13GI.2. METHODS. All methods shall comply with the requirements of Subsection 7.13.2 of the Standard Highway Specifications.

7.13GI.3. STORAGE OF MATERIALS AND EQUIPMENT. All storage of materials and equipment shall comply with the requirements of Subsection 7.13GI.3 of the Standard Highway Specifications.

7.13GI.4. NONCONFORMANCE. If the Contractor fails to maintain and protect the site of a Green Infrastructure under construction adequately and safely for a period of three (3) or more consecutive hours, the Engineer may correct the adverse conditions by any means he deems appropriate, including, but not limited to, "outside services," and shall deduct the cost of the corrective work from any monies due the Contractor.

However, where major nonconformance with the requirements of this specification is noted by the Engineer, and prompt Contractor compliance is deemed not to be obtainable, all contract work may be stopped by direct order of the Engineer, regardless of whether corrections are made by the Engineer as stated in the paragraph above.

Furthermore, in addition to the remedies specified above, in the event the Contractor fails to comply, within three (3) consecutive hours after written notice from the Engineer, with the requirements of the contract and the specifications in the matter of providing facilities and services for the maintenance, protection and cleanup of the construction site, the Contractor shall pay to the City of New York, until such notice has been complied with or rescinded, the

sum shown per calendar day in Schedule A, for each instance of such failure, as liquidated damages and not as a penalty, for such default.

Any money due the City of New York under this provision shall be deducted from the amounts due or to become due to the Contractor for work performed under the contract.

7.13GI.5. MEASUREMENT AND PAYMENT. Payment for this work shall be deemed to be included in the unit price bid for item No. ROWB-04.

**SECTION GI-2.03
(NOT A PAY ITEM)
CONCRETE APRON**

GI-2.03.1 INTENT

This section describes concrete aprons. The Contractor shall install concrete aprons of the types shown on the Standard Design and Guidelines for Green Infrastructure Practices.

GI-2.03.2 KIND

(A) Concrete aprons shall comply with the requirements of New York City Department of Transportation (NYCDOT), Standard Highway Specifications, Subsections 4.05.3, 4.05.4, and 4.05.5, and American Society for Testing and Materials (ASTM) C1262.

(B) Unless otherwise specified grout shall be Cement Grout composed of neat cement and water.

GI-2.03.3 PHYSICAL REQUIREMENTS

(A) The minimum acceptable average compressive strength of five-apron samples is 5000 psi, with no individual apron less than 4500 psi. The maximum acceptable average freeze/thaw loss of five- block samples, subjected to 42 freeze/thaw cycles in a 3% NaCl solution, shall not exceed 1.0%, with no individual sample exceeding 1.5%.

GI-2.03.4 MATERIALS

(A) All materials as required shall comply with the requirements of the NYCDOT, Standard Highway Specifications, Subsection 4.05.3.

GI-2.03.5 CONSTRUCTION METHODS

(A) All equipment and methods of construction shall comply with the requirements of the NYCDOT, Standard Highway Specifications, Subsection 4.05.4, and 4.05.5, with the following modifications and additions:

(1) At each bioswale there shall be a pair of concrete aprons consisting of one inlet type and one outlet type concrete apron. For installations in existing pavement, the Contractor shall be required to first full-depth saw cut and remove the pavement to the dimensions of the aprons as shown on the Contract Drawings and directed by the Engineer. The Contractor shall then backfill the excavated area to insure that the concrete apron will be placed to its proper elevation with foundation material which shall comply with the requirements of Subsection 4.05.2.(A).

The earth subgrade, immediately before foundation material is placed on it, shall be compacted to a minimum of 95 percent of Standard Proctor Maximum Density, smooth, parallel to and at the required depth below the finished concrete apron surface 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.

The foundation material shall be placed on the prepared subgrade, in a manner to minimize segregation, using equipment and procedures approved by the Engineer. Uncontrolled spreading from piles dumped on the grade resulting in segregation will not be permitted. Foundation material shall then be wetted to the optimum moisture content, based on a laboratory 5 point Proctor density test, and thoroughly compacted using an approved plate compactor. Compaction of foundation material shall range between 90% and 95% of the Standard Proctor Maximum Density, as directed by the Engineer, depending upon material used. Unsatisfactory subgrade material shall be removed and replaced with acceptable material thoroughly compacted to a minimum of 95% of Standard Proctor Maximum Density. The top surface of the foundation material shall be parallel to the finished grade and at a distance below the grade equal to the specified thickness of concrete.

(2) Following the placing and spreading of concrete, it shall be struck-off and finished to conform to the cross-sections shown on the Contract Drawings. The final finish shall be made by brooming after the water sheen has disappeared as per the requirements for Bus Stop Pavements.

(3) Where the Contractor chooses to precast the concrete apron, it shall be constructed in accordance with the following requirements:

Fabrication

a. Precast concrete aprons shall be fabricated to conform to the shapes and sizes shown on the Contract Drawings.

b. The Contractor shall provide the Engineer with shop drawings and detailed construction procedures for the aprons. Shop drawings shall show the form dimensions and location and type of reinforcement in the precast concrete aprons. The drawings shall be delivered to the Engineer for approval ten (10) working days before fabrication is to begin. No work shall begin until the drawings are approved.

c. The tolerance on placement of reinforcing steel in the apron shall be ± 1 inch. The chairs, spacers or other devices used to maintain the reinforcement in position shall have rust resistant tips. The cost of any steel reinforcement required to transport the precast aprons shall be deemed included in the cost of these items.

d. Concrete shall be consolidated in the forms by internal vibrators. Exposed surfaces shall be free from objectionable imperfections, such as honeycomb and air voids as determined by the Engineer. If air voids collect at the interface of the concrete and forms, the forms shall be tapped on the outside with rubber mallets or similar devices to displace the entrapped air.

Curing

a. The precast aprons may be cured as per the requirements for cast in place concrete aprons.

b. If the precast concrete aprons are steam cured, the aprons shall be cured in an enclosure free from outside drafts, and cured in a moist atmosphere. The temperature shall be maintained at a temperature between 125 degrees and 160

degrees F by the injection of steam for a period of not less than 12 hours. Steam curing shall not begin in less than 2 hours from the time that the last concrete was placed. Care shall be taken by the Contractor to prevent localized "hot spots" caused by the steam lines. A continuous temperature time recorder is required for each enclosure. The temperature of the curing atmosphere for any method shall not be increased or decreased at a greater rate than 40 degrees F per hour.

Repair

- a. Where approved by the Engineer, occasional imperfections in manufacture or those caused by mishandling may be repaired. The repairs shall be properly finished and cured. The color of the repaired area shall match as closely as possible with the rest of the apron color. Repairs may be made with a mixture of sand and cement, and shall be made to the satisfaction of the Engineer.
- (B) Apron dimensions shall be as required in the contract documents. Dimensions shall not vary by more than 1/4 inch from those specified. Aprons shall be sound and free from cracks or other defects that would interfere with their proper placement or performance.
- (C) Basis of Acceptance - The precast apron shall be accepted at the job site based on the following:
- (1) The manufacturer's name must appear on the N.Y.S. Department of Transportation's Approved List of "Precast Concrete Manufacturers Approved for QC/QA Production" for either Product Group 1, 2, or 4.
 - (2) A manufacturer's certification.
 - (3) An acceptable product evaluation made by the Engineer.
- (D) Prior to installation, the subgrade must be compacted and carefully graded such that the concrete apron slab will be seated flush on the subgrade, at the proper elevation and slope as shown on the Contract Drawings.

GI-2.03.6 MEASUREMENT AND PAYMENT

Payment for this work shall be deemed to be included in the unit price bid for item No. ROWB-04.

**SECTION GI-2.04
(NOT A PAY ITEM)
PRECAST POROUS CONCRETE**

GI-2.04.1.DESCRPTION. Under this Section, the Contractor shall be required to furnish and install a Precast Porous Concrete Gutter system adjacent to the curb and a Precast Porous Concrete Walkway system between hydraulically connected Right-of-Way Bioswales (R.O.W.B). Each Precast Porous Concrete system shall include, but not be limited to: 5" thick modular precast porous concrete paving slabs; edge restraints; an un-compacted/screed crushed stone leveling (base) layer; and either a compacted broken stone storage reservoir (subbase) course wrapped in geotextile over a prepared subgrade in the Gutter system or an Open-Graded Stone Base wrapped in geotextile in the Walkway system; all in accordance with the Contract Drawings, the specifications and directions of the Engineer.

GI-2.04.2.MATERIALS.

A. PRECAST POROUS CONCRETE PAVING SLAB

1. Manufacturer: Stormcrete™ Precast Porous Concrete Paving Slab System manufacturers shall include, but not be limited to, the following:

1. Stormwater Compliance
North Yarmouth, ME 04097
1-877-271-9055
<http://www.stormwatercomp.com/>
2. Faddis Concrete Products
1805 Horseshoe Pike
Honey Brook, PA 19344
610-269-4685
<http://www.faddis.com/>
3. Pre-cast Concrete Products of Maine, Inc.
139 Main Street
P.O. Box 307
Topsham, ME 04086
800-696-8265
<http://precastofmaine.com/>
4. Camp Precast Concrete, Inc
78 Precast Road
Milton, VT 05468
802-893-2401
<http://www.campprecast.com/>
5. Or an approved equal.

2. Each precast porous concrete paving slab shall have permanent lifting points imbedded in the top of the slabs for ease of slab installation, maintenance, removal, and reinstatement; and, shall be reinforced with epoxy coated steel bars as per the Manufacturer's recommendations.

3. Typical dimensions of precast porous concrete paving slab in plan shall be 5 ft. by 1-1/2 ft. for gutters adjacent to bioswales and 5 ft. by 4 ft. for the walkway between hydraulically connected bioswales. All precast porous concrete paving slabs shall be 5 inches thick.
4. Average core compressive strength of at least 3,000 psi at 28 days per American Society for Testing and Materials (ASTM) C42; and shall conform to American Concrete Institute (ACI) 522R.
5. Infiltration rate in accordance with American Society for Testing and Materials ASTM C 1701; and shall conform to ACI 522R.
6. Concrete average unit weight shall be 125 lb/cf (+/- 5%) conforming to ACI 522R.
7. Slab units shall include a minimum of 2 lifting permanent lifting points for the 1.5 ft. x 5 ft. units and a minimum of 4 lifting permanent lifting points for the 4 ft. x 5 ft. units.
8. Precast porous concrete slabs shall be cured by the manufacturer's approved methods. Slabs shall not be shipped until the porous concrete has achieved 85% of the minimum compressive strength.

B. EDGE RESTRAINT

1. Edge restraints installed at exterior sides of precast porous concrete pavers shall be as follows:
 - a. Expansion Joint Material and either of the following to be furnished and installed under other concrete items: Precast Concrete, Cut Stone or Cast-in-Place Concrete, as shown on the Contract Drawings.
 - b. Manufacturer: Expansion Joint Material shall be from a manufacturer listed in the current New York State Department of Transportation's approved list of Premoulded Resilient Joint Fillers. Precast Concrete, Cut Stone and Cast-in-Place edge restraint shall comply with the requirements of other contract items.
 - c. Material Standards for Expansion Joint Material shall comply with the requirements of Section 2.15, Type IV, in the New York City, Department of Transportation, Standard Highway Specification, as currently amended, and shall be either one-quarter (1/4") inch or one-half (1/2") inch thick, at the Contractor's option.

C. BROKEN STONE RESERVOIR (SUBBASE) FOR GUTTER SYSTEMS AND LEVELING COURSE FOR BOTH THE GUTTER SYSTEM AND WALKWAY SYSTEM

1. Use of screened rounded gravel is prohibited.
2. All broken stone material acceptable under this section shall be sound, hard, durable, unweathered stone freshly broken. All broken stone shall be double-washed and clean and free of all fines and debris, not contaminated with clay,

and free from any organic or other deleterious material.

3. Broken stone reservoir (subbase) for gutter systems shall be 3/4" (nominal) size conforming to ASTM C 33, Size Number 6 in TABLE 2 Grading Requirements for Coarse Aggregates. Thickness of compacted reservoir course shall be as shown on the Contract Drawings or as otherwise directed by the Engineer.
4. Un-compacted/screed broken stone for leveling course shall be 3/8" (nominal) size conforming to ASTM C 33, Size Number 8 in TABLE 2 Grading Requirements for Coarse Aggregates. Thickness of un-compacted/ screed leveling course layer shall be three (3") inches, unless otherwise shown on the Contract Drawings.
5. Product Substitutions: Substitutions may be allowed for gradations of broken stone storage reservoir (subbase) and leveling course. Compacted broken stone for storage reservoir (subbase) shall have a minimum porosity of 0.40. All substitutions shall be as approved by the Engineer.

D. OPEN-GRADED STONE (SUBBASE) FOR WALKWAY SYSTEMS

1. Open-graded stone (Subbase) shall be furnished and placed under Item No. GI-2.07 and wrapped in geotextile fabric under Item No. GI-209.

E. GEOTEXTILE FABRIC FOR THE GUTTER SYSTEMS

1. Geotextile Fabric used to wrap the broken stone reservoir course in gutter systems shall meet the requirements of Section GI-2.09, contained herein.

GI-2.04.3.SUBMITTALS.

- A. The Contractor shall furnish: Shop drawings, in accordance with the requirements of Subsection 1.06.13. of the New York City Department of Transportation (NYCDOT), Standard Highway Specifications, showing the installation plan layout of each full and partial precast porous concrete paving slab complete with lifting points in surface, edge restraint detail(s), and geotextile manufacturer specification sheets, indicate materials outside perimeter and profiles/sections.
- B. Test results performed by an independent testing laboratory of the following:
 1. Particle-size analysis in accordance with ASTM C 136 for the broken stone storage reservoir (subbase) and broken stone leveling course (base) with source(s) of supply noted.
 2. Infiltration rate in accordance with ASTM C 1701 and bulk density for the precast porous concrete paving slabs conforming to ACI 522R.
 3. Average Core Compressive strength in accordance with ASTM C42 of cores obtained from the precast concrete paving slabs; conforming to ACI 522R.

GI-2.04.4.METHOD OF CONSTRUCTION.**A. CONTRACTOR'S QUALITY CONTROL PLAN**

1. A Quality Control Plan shall be furnished by the Contractor at least five (5) working days prior to installing the precast porous concrete paving slab system for the Engineer's approval before commencing work. The plan shall include, but not be limited to, horizontal and vertical layout of the work, installation of edge restraint, fine grading of subgrades, installing geotextile, placing and compacting broken stone reservoir course (subbase) or open graded stone (Subbase) as shown on the Contract Drawings, placing broken stone leveling course (base), and placing precast porous concrete paving slabs.
2. The installation contractor/subcontractor shall have documented experience with the successful installation of precast porous concrete paving slabs similar in complexity of this project.
3. The installation contractor/subcontractor shall use adequate forces to perform this work and shall indicate what equipment and work force he will be using.
4. Precast porous concrete paving slabs shall be visually inspected for completeness, texture and consistency with installation drawings. A small amount of "skinning", not to exceed 5% of the top or bottom of slab surface areas, will be allowed.
5. A review of the Contractor's installation plan will be done in a pre-construction meeting with the manufacturer's representatives, paving slab installation contractor/subcontractor, the Engineer, and the project's Design Engineer.

B. GENERAL

Before paving slabs are installed, the Contractor shall ensure that all materials and preparation for subbase and edge restraints are acceptable to the installer and manufacturer of precast pervious concrete paving slabs. Preparation of subbase materials shall include proper compaction procedures, placement of geotextile fabric as shown on the Contract Drawings, conditions of subgrade soils, and any other potential obstructions to a satisfactory installation as specified herein.

C. WEATHER CONSIDERATIONS

1. Do not place and/or compact broken stone subbase in rain or snow, or on saturated or frozen subgrade.
2. Do not place and/or screed broken stone base in rain or snow, or on saturated or frozen subbase.
3. Do not install precast porous concrete slabs in rain or snow, or on saturated or frozen base.

D. DELIVERY, HANDLING AND STORAGE OF PRECAST POROUS CONCRETE PAVING SLABS

1. Coordinate delivery to not interfere with other construction and avoid delays.
2. Slabs shall be offloaded two at-a-time by forklift operated by a trained and experienced operator. Forklift must be equipped with 6-ft. long forks to safely offload slabs. Slabs delivered on pallets can be offloaded in its entirety.
3. Verify safe load capacity of forklift in accordance with Occupational Safety & Health Administration (OSHA) recommended practices. Only use forklifts with adequate safe load capacity.
4. Store slabs on level ground and propped with 4-in. by 4-in., minimum, timbers placed parallel to one another located directly beneath imbedded lifting points. Place timbers between each slab.
5. Slabs shall be stored in stacks not more than 6 slabs high.
6. Store slabs such that they are kept free from mud, dirt, grass cuttings, accumulation of foliage and debris.

E. STOCKPILING AND SAMPLING OF BROKEN STONE RESERVOIR AND LEVELING COURSE AGGREGATE

All material shall be stockpiled, unless otherwise directed. Stockpile construction requirements, sampling, testing and acceptance/rejection procedures shall be as stipulated in the appropriate New York State Department of Transportation publication in effect at the time of advertisement.

No material shall be added to a stockpile after the stockpile has been sampled for approval. Only material from approved stockpiles shall be placed on the subgrade for this section. The presence of any oversize particles in the stockpile will be cause for rejection of the entire stockpile. No material shall be removed for use from any stockpile until the stockpile has been sampled, tested, and approved in writing, by the Engineer, for placement on the subgrade. It shall be the duty of the Contractor to furnish suitable and approved excavating equipment for such sampling. Approval of a stockpile for placement on the subgrade shall not relieve, in any degree, the full responsibility of the Contractor to furnish, in its compacted position, a subbase course of select granular materials, the final condition of which conforms to all the requirements of the specifications for this section. In the event the Contractor shall have a plant or procedure resulting in subbase course material of uniform quality, at a rate satisfactory to the Engineer, and such that satisfactory samples for tests can be obtained, the requirement for stockpiling may be waived. Prior approval of the Engineer must be obtained and the work must be done in accordance with such conditions as may be imposed in the approval. Such waiver shall remain in force only so long as a satisfactory material is produced.

F. EXCAVATION AND EARTH SUBGRADE FOR GUTTER INSTALLATIONS

The Contractor shall be required to full depth saw cut the roadway pavement as required to install precast porous concrete pavers within the gutter, as shown on the Contract Drawings. Excavation shall be made to dimensions sufficient to accommodate placement of the broken stone reservoir course material.

G. INFILTRATION SYSTEM SUBGRADE PREPARATION

1. Verify that the broken stone reservoir course or open graded stone base, as shown on the Contract Drawings, has been properly placed within the trench and compacted as approved and accepted by the Engineer.
2. The subgrade under the broken stone reservoir course shall not be compacted or permanently covered with geotextile, unless otherwise shown on the Contract Drawings or directed by the Engineer.
3. Prepared subgrades shall not be subject to construction equipment traffic.
4. Where erosion has caused accumulation of sediment or ponding on the subgrade, remove sediment with light equipment and/or manually. Scarify the underlying soils to a minimum depth of 6 inches with a York type rake, or equivalent equipment.
5. Restore any subgrade areas damaged by erosion, ponding, or traffic compaction to design line and grades prior to installation of storage reservoir course (layer) .

H. INSTALLATION

1. Acceptance of Site Conditions:

The Contractor shall inspect, accept and document in writing to both the Engineer and the slab installation contractor/subcontractor that site conditions meet specifications for the following prior to installation of concrete paving slabs.

- a. Verify that subgrade is dry and relatively compacted, surface tolerances and elevations conform to Construction Drawings and specified requirements.
- b. Verify location, type, and elevations of edge restraints, utility structures, manholes, and valve boxes.
- c. Do not proceed with installation of precast porous concrete paving system until site conditions are corrected by the Contractor or designated subcontractor.

2. General

- a. Any excess thickness of soil placed over the soil subgrade to trap sediment transported by runoff from adjacent construction areas shall be removed before placement of geotextile when shown on the Contract Drawings and the storage reservoir layer.
- b. Keep areas where precast porous concrete paving slabs are to be installed free of sediment during the entire construction period. Geotextiles when shown on the Contract Drawings and storage reservoir broken stone contaminated with sediment shall be removed and replaced with clean materials.

- c. Do not damage drainpipes, underdrains, observation wells, roadway boxes, manholes or any other utilities during installation. Report any damage immediately to the Engineer.

3. Geotextile Fabric

- a. Place the geotextile on the prepared subgrade and side slopes for it to wrap around the stone reservoir course and open graded stone, as shown on the Contract Drawings. Also place geotextile conforming to the requirements of Section GI-2.09 to wrap around the broken stone reservoir.
- b. Secure geotextiles in place to prevent shifting, wrinkling or folding during placement of the broken stone reservoir course and the leveling course.
- c. Overlap geotextile edges a minimum of 12 inches in the direction of drainage flow.

4. Broken Stone Reservoir Course in Gutters Systems

- a. Place 3/4" (nominal) size broken stone, conform to ASTM C 33 Size Number 6 over the prepared subgrade and spread and level evenly by raking to a minimum thickness of six (6") inches. Do not disturb prepared subgrade or shift, wrinkle or fold the geotextile fabric and/or impermeable liner when and where place as shown on the Contract Drawings.
- b. The broken stone reservoir course material shall be spread in equal thickness layers. The spreading of any layer of this material shall be done with spreader equipment approved by the Engineer, and to such thickness that the maximum depth of the layer, after compaction, will be 6 inches. Spreading from piles dumped on the roadway will not be permitted. No segregation of large or fine particles will be allowed, but the material, as spread, shall be well graded, with no pockets of fine material. Water shall be added in such amounts as the Engineer may consider necessary to obtain satisfactory compaction.
- c. Compact layers with approved vibrating plate compactors or impact rammers until there is no visible movement, weaving or deflection in the surface of the broken stone reservoir course.
- d. The surface tolerance of the compacted broken stone reservoir course shall be + 3/4 in. under a 10 ft. straightedge.
- e. Compacted storage reservoir area shall not substantially exceed that which is covered by paving slabs by the end-of-day.
- f. The Contractor shall assume full responsibility for any contamination and/or degradation of any part of this base during construction and shall, at his own expense, remove any and all portions of this base which do not

conform to the requirements of these specifications and replace these portions with specified material.

5. Leveling Course Layer (Un-compacted/Screed Broken Stone). Prior to placing the leveling course layer, the subbase surface tolerance shall not be more than $\pm 3/8$ inch over a 10 ft. straight edge.
 - a. Place and spread ASTM C 33 Size Number 8 crushed stone evenly over the screed rails to a thickness of 2 to 3 inches. Level surface of crushed stone with screed.
 - b. Do not compact or disturb screed leveling layer.
 - c. The surface tolerance of the screed leveling layer shall be + 1/4 inch under a 10 ft. straightedge.
 - d. Screed leveling layer placed shall not substantially exceed that which is covered by paving slabs by the end-of-day.

I. EDGE RESTRAINT

1. Edge restraints shall be either the existing pavement surface or required to be furnished and installed under other contract items, as shown on the Contract Drawings.

J. PAVING SLAB PLACEMENT

1. Since the uniformity of the leveling (base) layer determines the differential settlement between precast porous concrete paving slabs, the slab installer shall not be permitted to correct deficiencies in the leveling layer surface with additional stone, raking, compaction or by other similar means. The Contractor shall be required to check and accept the surface of the leveling layer, in writing to Engineer, prior to placing precast porous concrete paving slabs.
2. Paving slabs shall only be lifted and placed using swivels and spreader chains. Chains, cables or slings should never be wrapped around the paving slabs for lifting under any circumstances. Swivels shall be securely bolted snug but not over-tightened to avoid damage to the surface.
3. Place units hand tight without using metal hammers, pry bars or drift pins. Make horizontal adjustments to placement of laid slabs with wood wedges and levers, and rubber mallets as needed. Joint widths and lines shall be continually straightened as paving proceeds.
4. Unless otherwise recommended by the manufacturer of the precast porous concrete paving slabs, provide joints between slabs of 1/4" wide using spacers provided by the manufacturer of the precast porous concrete paving slabs. No joints shall exceed 1/4" in width.
5. Joints shall be left open. No stone or sand is to be placed in joints.

6. Joint lines shall not deviate more than $\pm 1/2$ inch over 50 ft. from string lines.
7. Fill gaps at the edges of the paved area with properly-sized end slabs.
8. Cut end slabs to be placed along the edge or corners with a masonry saw. Cut units shall be no shorter than $1/4$ of a whole slab.
9. Keep skid steer and forklift equipment off unrestrained paving slabs.
10. After an area is completely paved, set the precast porous concrete slabs into the screed broken stone leveling course layer by trafficking with light rubber-tired equipment.
11. Remove and replace any slabs cracked or damaged during installation with new ones. Reset slabs not in conformance with specified installation tolerances
12. Check final surface elevations of set slabs for conformance to design drawings. The final surface tolerance from grade elevations shall not deviate more than $\pm 3/8$ inch under a 10 ft. straightedge.
13. The surface elevation of set slabs shall be flush with manholes or the top of utility structures.

K. PROTECTION

After work in this section is complete, the Contractor shall be responsible for protecting the precast porous paving slab system from damage and/or contamination with mud, dirt, grass cuttings, accumulation of foliage and debris. Use plastic caps to fill permanent lifting points to protect the holes from filling with dirt or debris.

GI-2.04.5. MEASUREMENT AND PAYMENT

Payment for this work shall be deemed to be included in the unit price bid for item No. ROWB-04.

**SECTION GI-2.06
(NOT A PAY ITEM)
L-SHAPED EDGING**

GI-2.06.1.INTENT

This section describes the landscape edging adjacent to the stone strip bed in bioswales.

GI-2.06.2.KIND

Edging shall consist of L-shaped Polyvinyl chloride (PVC) or aluminum edge restraint product, a minimum of six (6) inches high by five (5) inches wide, in up to five (5) foot lengths. The thickness of the material shall be a minimum of 0.15 inches. Drainage holes flush with the horizontal leg shall be present on both the sides of the L-shaped edging. Nine (9) inch minimum length stakes shall be installed a minimum of every two (2) feet on center. The color of the edging shall be black.

Edging shall be Teco-Edg Specialty Edge Restraint manufactured by Oly Ola Edgings, Inc. in Villa Park, IL; GeoEdge Aluminum Green Building Edging manufactured by Permaloc Corporation in Holland, MI; or approved equivalent. Submit product cut sheets as shop drawings for Engineer's approval prior to ordering the product.

GI-2.06.3.DESCRPTION

The edging shall be installed adjacent to the stone strip bed in bioswales where required, as shown on Contract Drawings and in accordance with the specifications and the directions of the Engineer.

GI-2.06.4.CONSTRUCTION METHODS

(A) The edging shall be installed true to line and grade in accordance with the drawings and as directed by the Engineer. The "L" of the edging shall face towards the curb, and the top of the "L" shall be at or below the concrete c elevation. Crushed stone shall be placed on top of the edging as per the drawings and as directed by the Engineer.

GI-2.06.5.RELATED SPECIFICATIONS

Specification GM-30 – Epoxy Bonded Stone Strip Bed

GI-2.06.6. MEASUREMENT AND PAYMENT

Payment for this work shall be deemed to be included in the unit price bid for item No. ROWB-04.

**SECTION GI-2.07
(NOT A PAY ITEM)
OPEN GRADED STONE BASE**

GI-2.07.1.INTENT

This section describes the open graded stone base.

GI-2.07.2.KIND

All materials for this work shall comply with the latest New York State Department Of Transportation Standard Specifications Coarse Aggregate Section 703.02. The material shall be #5 crushed stone (or larger) that is washed and sorted between 3" and 4".

GI-2.07.3.DESCRPTION

The thicknesses and locations of the "open-graded stone base" shall be as shown on the Standard Design and Guidelines for Green Infrastructure Practices, or as determined by field conditions and ordered by the Engineer.

GI-2.07.4.CONSTRUCTION METHODS

- (A) Prior to the placement of any base material, the Contractor shall submit a representative sample to the Engineer and obtain approval, in writing.
- (B) The material shall be spread in equal thickness layers.
- (C) Prior to backfilling with the Open Graded Stone Base, the subgrade of the bioswale footprint shall be scarified to ensure no compaction. Stone base shall be placed by gravity with no additional compaction.
- (D) The Contractor shall assume full responsibility for any contamination and/or degradation of any part of this base during construction and shall, at his own expense, remove any and all portions of this base which do not conform to the requirements of these specifications and replace these portions with specified material.

GI-2.07.5.MEASUREMENT AND PAYMENT

Payment for this work shall be deemed to be included in the unit price bid for item No. ROWB-04.

SECTION GI-2.08
(NOT A PAY ITEM)
HIGH DENSITY POLYETHYLENE (HDPE) BARRIER

GI-2.08.1.INTENT

This section describes the HDPE BARRIER. The purpose of the HDPE Barrier is to provide an impermeable layer which does not allow water to pass through it. The HDPE barrier shall be installed where directed by the Engineer, as shown on drawings and in accordance with the specifications and the directions of the Engineer.

GI-2.08.2.KIND

The HDPE barrier shall consist of HDPE Geomembrane sheets not less than 80 mil thickness, meeting or exceeding Geosynthetic Research Institute (GRI) Test Method GM13.

GI-2.08.3.SUBMITTALS

(A) The Contractor, prior to the start of work, shall submit to the Engineer for approval samples of the geomembrane in accordance with the requirements of Section 1.06.31, in the New York City Department of Transportation (NYCDOT), Standard Highway Specifications, and methods of splicing permitted at utility crossings.

(B) Certified material test reports showing that the geomembrane meet the specified requirements shall be submitted for each shipment and identified with specific lots prior to installing materials. Material test reports shall meet the requirements of American Society for Testing and Materials (ASTM) and GRI test method GRI GM 13.

(C) The manufacturer shall submit certified test data to cover each shipment of the material.

GI-2.08.4.CHEMICAL AND PHYSICAL REQUIREMENTS

(A) HDPE geomembrane sheets supplied for the project shall meet or exceed all required physical characteristics as defined below:

1. HDPE Geomembrane - High quality, high density polyethylene (HDPE) geomembrane specially formulated with virgin formulated polyethylene.
2. Thickness - Thickness shall not be less than (minimum average) 80 mil, measured in accordance with ASTM D5199.
3. Density - The Density shall not be less than 59 lb./ft³, measured in accordance with ASTM D1505.
4. Tear resistance - Tear resistance shall not be less than 40 lb., measured in accordance with ASTM D1004.
5. Puncture Resistance - Puncture Resistance shall not be less than 100 lb., measured in accordance with ASTM D4833.
6. The HDPE Barrier shall be strong enough to resist both rot and insects.

2.08.5.CONSTRUCTION METHODS

- (A) Delivery - Deliver materials to site in manufacturer's original, unopened packaging, with labels clearly identifying product name and manufacturer.
- (B) Storage - Store materials in clean, dry area in accordance with manufacturer's instructions.
- (C) Handling - Protect materials during handling and installation to prevent damage.
- (D) Prior to the installation of the HDPE Barrier, the Contractor shall excavate the Bioswale area to the satisfaction of the Engineer.
- (E) Install HDPE Barrier as indicated on the Standard Design and Guidelines for Green Infrastructure Practices.
- (F) The HDPE Barrier shall be placed in one piece directly on the vertical face of the excavation. No splicing will be permitted, except at utility crossings.
- (G) No equipment, materials or machinery shall be placed on or be transported over exposed HDPE Barrier.
- (H) HDPE Barrier shall be placed as shown on the plans and as directed by the Engineer. Care shall be taken in the placement of backfill under other items so as to prevent dislocation of the HDPE Barrier. If the HDPE Barrier is ruptured during installation, the rupture shall be covered with a patch of new HDPE Barrier that will overlap the undamaged area by at least six (6") inches in all directions. No additional payment will be made for the repair.

GI-2.08.6.MEASUREMENT AND PAYMENT

Payment for this work shall be deemed to be included in the unit price bid for item No. ROWB-04.

**SECTION GI-2.09
(NOT A PAY ITEM)
GEOTEXTILE FABRIC**

GI-2.09.1.INTENT

This section describes geotextile fabric. The Contractor shall furnish and install non-woven geotextile - drainage in accordance with the Standard Design and Guidelines for Green Infrastructure Practices, as directed by the Engineer.

GI-2.09.2.KIND

Geotextile fabric shall comply with the requirements of New York City Department of Transportation (NYCDOT), Standard Highway Specifications, General Conditions, Subsection 1.06.31, as currently amended.

GI-2.09.3.SUBMITTALS

(A) All submittals shall be submitted prior to purchase and shall be made in accordance with the requirements of the NYCDOT Standard Highway Specifications, General Conditions, Subsection 1.06.31.

(B) Samples: The Contractor shall furnish two (2) labeled samples of the geotextiles intended for use in the work for approval and the Engineer's use. The label shall include the manufacturer's product name, the type of fabric, and the weight of grade of the material. Geotextiles used in the work shall conform to the approved samples.

GI-2.09.4.CHEMICAL AND PHYSICAL REQUIREMENTS

(A) Drainage application is defined as a soil to geotextile system that allows for long-term, adequate liquid flow normal to the geotextile with limited soil loss across the plane of the geotextile.

(B) Fibers used in the manufacture of drainage geotextiles, and the threads used in joining geotextiles by sewing, shall consist of long-chain, synthetic polymers, composed of at least 95 percent by weight polyolefins, polyesters, or polyamides. They shall be formed into a stable network such that the filaments or yarns retain their dimensional stability relative to each other, including selvages. The geotextile shall have no tears or defects which adversely alter its physical properties. Geotextiles used in drainage applications shall conform to the following properties for Non-Woven Geotextile Drainage:

Property	ASTM Test	Requirements
Structure		Non-Woven
Elongation	ASTM D4595	≥ 50%
Grab Strength (Min.)	ASTM D4632	700N (157 LBS)
Tear Strength (Min.)	ASTM D4533	250N (56 LBS)
Puncture Strength (Min.)	ASTM D4833	250N (56 LBS)
Permittivity (Min.)	ASTM D4491	0.21 / sec.
Apparent Opening Size (Max.)	ASTM D4751	0.25 mm (0.0098 inch) Std. No. 60 sieve

GI-2.09.5.BRAND

(A) Geotextiles shall be as manufactured by Advanced Drainage Systems, Inc., Hillard, OH; Carthage Mills, Cincinnati, OH; Mirafi, Inc., Charlotte, NC; or approved equivalent.

GI-2.09.6.CONSTRUCTION METHODS

(A) Each geotextile roll shall be wrapped with a material that will protect the geotextile, including the ends of the roll, from damage due to shipment, water, sunlight, and contaminants. The protective wrapping shall be maintained during periods of shipment and storage. During storage, geotextile rolls shall be elevated off the ground and adequately covered to protect them from the following: site construction damage, precipitation, extended ultraviolet radiation including sunlight, chemicals that are strong acids or strong bases, and any environmental condition that may damage the physical property values of the geotextile.

(B) Prior to installation of geotextile, the ground shall be prepared by removing stumps and other organic material, along with any large boulders and sharp objects which may tear or damage the fabric. Install geotextile at elevations and alignments as indicated on the drawings or as directed by the Engineer. The drainage geotextile shall be placed loosely with no wrinkles or folds. Care will be taken to place the geotextile in intimate contact with the soil so that no void spaces occur between the geotextile and trench or ground. Where the geotextile is to be installed in a trench, the geotextile shall be overlapped at the top of the trench, twelve (12) inches or the full width of the trench, whichever is less. If the geotextile is damaged during installation, the rupture shall be removed and the damaged area shall be covered with a patch of new fabric which will overlap the undamaged fabric at least six (6) inches in all directions. All repaired fabric surface costs will be deemed part of the price bid.

GI-2.09.7.MEASUREMENT AND PAYMENT

Payment for this work shall be deemed to be included in the unit price bid for item No. ROWB-04.

**SECTION GI-2.10
(NOT A PAY ITEM)
STEEL TREE GUARDS**

GI-2.10.1. INTENT

This section describes steel tree guards. The Contractor shall furnish and install Steel Tree Guards in accordance with the NYC DEP Standard Design and Guidelines for Green Infrastructure Practices, and as directed by the Engineer.

GI-2.10.2. KIND

Steel tree guards shall conform to Specifications C1015 of the American Iron and Steel Institute (AISI) and shall be of solid steel and not hollow in section.

GI-2.10.3. SUBMITTALS

(A) The Contractor shall submit for the approval of the Engineer finished samples of parts of the steel tree guards. The workmanship and finish of the final product shall be equal to the approved samples. Also, the Contractor shall submit detailed shop drawings of steel tree guards for the approval of the Engineer.

(B) Paint Substitution: A written request for paint substitution must be submitted to the Engineer for approval. Contractor shall submit this request, along with manufacturer's data sheets for approval, a minimum of two weeks prior to the intended date of paint application. All paint substitutes must be approved in writing prior to use.

GI-2.10.4. CHEMICAL AND PHYSICAL REQUIREMENTS

Steel Tree Guards shall be constructed of bars, posts, and rails of the sizes shown on the plans. All material shall conform to Specifications C1015 of the American Iron and Steel Institute (AISI).

GI-2.10.5. MATERIALS

(A) All material for the steel tree guards shall conform to Specifications C1015 of the AISI.

GI-2.10.6. CONSTRUCTION METHODS

(A) Steel Tree Guards shall be fabricated in strict accordance with the plans and approved shop drawings. Posts, pickets, bars, and rails shall be formed into panels of the shapes shown on the Contract Drawings. Joints shall be completely welded with welds of proper size and shape. All welds shall be ground smooth to a neat finish. Connections shall be provided as indicated on the plans. Welding shall conform to current industry requirements for this type of application.

(B) Steel spike shall be concrete encased as shown on the plans or as per Standard Design and Guidelines for Green Infrastructure Practices

(C) Posts and pickets shall, in all cases, be truly vertical as shown on the plans. Rails and bars shall be parallel to grade as shown on the Contract Drawings. Panels shall be curved as required by the work. Dimensions of individual steel tree guards may vary as required by existing site conditions, in accordance with the directions of the Engineer.

(D) Steel tree guards shall receive three (3) shop applied coats of paint. A field applied touch-up coat shall be applied at the discretion of the Engineer. Immediately prior to painting, all surfaces of framework shall be thoroughly cleaned free of debris. All surfaces that are rust free

shall be treated in accordance with SP-1, Solvent Cleaning. Treatment shall be performed with a solvent such as mineral spirits, xylol, or turpentine to remove all dirt, grease, and foreign matter. Surfaces that show evidence of scale and rust shall be cleaned in accordance with SP-2, Hand Tool Cleaning, a method generally confined to wire brushes, sandpaper, hand scrapers, or hand impact tools or SP-3, Power Tool Cleaning, a method generally confined to power wire brushes, impact tools, power sanders, and grinders in order to achieve a sound substrate. After the steel tree guards have been cleaned and prepared, they shall be painted as follows:

(1) First Coat (Shop Applied): Sherwin Williams # E41N1 Metal Primer, Brown, or approved equivalent. Primer is an alkyd oil, flat finish coating having a dry film thickness of 3 to 4 mils. Paint requires twenty four (24) hours drying time before recoating. Performance shall meet or exceed the standards of Federal Specification TT-P-86H.

(2) Second Coat (Shop Applied): Sherwin Williams High Solids Alkyd Metal Primer, B50 Series, Reddish Brown, or approved equivalent. Primer is an alkyd, low luster coating having a dry film thickness of 3-5 mils. Paint requires four (4) hours drying time before recoating (with alkyds)

(3) Third Coat (Shop Applied): Sherwin Williams Silicone Alkyd Low VOC B56Z Black, or approved equivalent. Topcoat is a silicon alkyd, high gloss coating having a dry film thickness of 2 -4 mils. Paint requires sixteen (16) hours drying time @ 45° F; eight (8) hours @ 77°F. (tack free)

Alternative paint manufacturers shall be Devoe and Reynolds, Co.; Pratt and Lambert, Inc.; Pittsburgh Plate Glass Company; Sapolin; or an approved equivalent. All paints used shall be compatible and the product of the same manufacturer.

(E) All paints shall be applied when ambient air temperature is forty-five (45) degrees F and rising and when surfaces to be painted are moisture free. No painting will be allowed below the minimum ambient air temperature. In addition, no painting will be allowed below the temperature at which moisture will condense on surfaces. Refer to the Dew Point Chart at the end of this section to find the minimum allowed moisture free temperature.

(F) The steel tree guards shall be erected in soil only, inside the tree pits. The posts shall be set in place and properly supported to hold them to line and grade. The lowest portion of the steel band at the bottom of all side rails set 1" above the finished grade of the sidewalk. Any guards not set plumb and true to line and grade shall be removed and replaced at the Contractor's expense.

GI-2.10.7. MEASUREMENT AND PAYMENT

Payment for this work shall be deemed to be included in the unit price bid for item No. ROWB-04.

**SECTION GI-2.13A
(NOT A PAY ITEM)
ENGINEERED SOIL AND SAND**

GI-2.13A.1. INTENT

This section describes Engineered Soil and Sand. The Contractor shall furnish, amend (if required), place and prepare the Engineered Soil for seeding and/or plant material as shown on the Standard Design and Guidelines for Green Infrastructure Practices and/or as directed by the Engineer.

GI-2.13A.2. KIND

Engineered Soil and Sand shall conform to the following standards:

1. Recommended Soil Testing Procedures for The Northeastern United States, 3rd Edition, Northeast Regional Publication, Agricultural Experiment Station, University of Delaware. Bulletin #493, Revised October 2009 or latest.
2. The United States Department of Agriculture (USDA) Soil Survey Laboratory Methods Manual, Soil Survey Investigations Report No. 42 Version 4.0 November 2004.

GI-2.13A.3. SUBMITTALS

(A) Prior to the procurement of Engineered Soil and Sand, the following information and samples are required for review and approval for each source:

1. Proposed material source and vendor.
2. A sample of the proposed material, taken with a representative of the Department, indicating the method of sampling and location of the sample.
3. The Contractor shall submit to the Engineer the name and location of the borrow (source) or stockpile site(s) and the estimated quantity of material available. The Contractor shall provide a notarized letter from the owner(s) of the proposed borrow site and/or stockpile site(s) indicating ownership of the proposed site(s) and a commitment to supply a specified minimum quantity of material for this project. Additionally, the supplier shall provide a certificate of clean fill and/or source materials for topsoil, signed by a New York State licensed Professional Engineer (PE)/ Registered Landscape Architect (RLA) or Registered Architect (RA). To avoid delays in planting and seeding, the Contractor shall immediately begin to secure and test Engineered Soil at least one month in advance of the material actually being needed on site. This will allow sufficient time to blend the specified soil mix and make all the necessary adjustments in the mixing process.
4. Results of the organic content analyses conducted in accordance with the above referenced standard, *Recommended Soil Testing Procedures for The Northeastern United States, 3rd Edition, Northeast Regional Publication, Agricultural*

Experiment Station, University of Delaware. Bulletin #493, Revised October 2009 or latest.

5. Results of the Unified Soil Classification System (USCS) soil texture gradation (gravel, sand, silt and clay) analyses and sand sieve analyses, with full reporting of all information in American Association of State Highway and Transportation Officials (AASHTO) sieve sizes, in accordance with the *AASHTO T 27 Sieve Analysis of Fine and Coarse Aggregates* and *ASTM D2487 Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System)*

6. Results of the pH tests conducted in accordance with the above referenced standard, United States Department of Agriculture (USDA) *Soil Survey Laboratory Methods Manual, Soil Survey Investigations Report No. 42 Version 4.0 November 2004.*

7. Results of the soluble salts test conducted in accordance with the above referenced standard, *Recommended Soil Testing Procedures for The Northeastern United States, 3rd Edition, Northeast Regional Publication, Agricultural Experiment Station, University of Delaware. Bulletin #493, Revised October 2009 or latest.*

8. Results of the Nutrient analyses test conducted in accordance with the above referenced standard, *Recommended Soil Testing Procedures for The Northeastern United States, 3rd Edition, Northeast Regional Publication, Agricultural Experiment Station, University of Delaware. Bulletin #493, Revised October 2009 or latest.*

9. Results of the Inorganic nitrogen and total Kjeldahl nitrogen tests conducted in accordance with the above referenced standard, *USDA Soil Survey Laboratory Methods Manual, Soil Survey Investigations Report No. 42 Version 4.0 November 2004.*

10. Results of the acid-producing (iron sulfide) test conducted in accordance with the methodologies utilized by the *USDA Soil Survey Laboratory Methods Manual, Soil Survey Investigations Report No. 42 Version 4.0 November 2004.*

NOTE: Due to the agricultural nature of some of the Quality Control testing, the Contractor is notified that both Rutgers University and Cornell University can perform nearly all agricultural testing required, one exception may be the acid-producing test. Turn around times for results may vary from standard soils testing. However, all agricultural testing procedures must be performed in accordance with the above referenced standards and the *USDA Soil Survey Laboratory Methods Manual (No. 42, November 2004), AASHTO T 27 Sieve Analysis of Fine and Coarse Aggregates* and the *Recommended Soil Testing Procedures for The Northeastern United States, 3rd Edition, Northeast Regional Publication, Agricultural Experiment Station, University of Delaware. Bulletin #493, Revised October 2009 or latest.* If another lab is proposed, the Contractor can submit written certification from the proposed lab certifying that the lab will utilize the same methodologies for soil testing as outlined in these specifications. Approval of the laboratory for Contractor's Quality Control testing will be by the Engineer.

(B) As delivery of Engineered Soil to the site progresses, the following additional testing shall be conducted by the Contractor on the Engineered Soil brought to the site. Frequency of testing is one for every 50 CY delivered. Results of tests shall be submitted to Engineer for review and approval.

1. Organic Content Testing in accordance with the *Recommended Soil Testing Procedures for The Northeastern United States, 3rd Edition, Northeast Regional Publication, Agricultural Experiment Station, University of Delaware. Bulletin #493, Revised October 2009* or latest.
2. pH testing in accordance with the *USDA Soil Survey Laboratory Methods Manual, Soil Survey Investigations Report No. 42 Version 4.0, November 2004*.
3. Soluble Salts testing in accordance with the *Recommended Soil Testing Procedures for The Northeastern United States, 3rd Edition, Northeast Regional Publication, Agricultural Experiment Station, University of Delaware, Bulletin #493, Revised October 2009* or latest.
4. Results of the Nutrient analyses test conducted in accordance with the *Recommended Soil Testing Procedures for The Northeastern United States, 3rd Edition, Northeast Regional Publication, Agricultural Experiment Station, University of Delaware, Bulletin #493, Revised October 2009* or latest.
5. Results of the Inorganic nitrogen and total Kjeldahl nitrogen tests conducted in accordance with the *USDA Soil Survey Laboratory Methods Manual, Soil Survey Investigations Report No. 42 Version 4.0, November 2004*.
6. Results of the USCS soil texture gradation (gravel, sand, silt and clay) analyses and sand sieve analyses, with full reporting of all information in AASHTO sieve sizes, in accordance with the *AASHTO T 27 Sieve Analysis of Fine and Coarse Aggregates and ASTM D2487 Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System)*.
7. Results of the acid-producing (iron sulfide) test conducted in accordance with the methodologies utilized by the *USDA Soil Survey Laboratory Methods Manual, Soil Survey Investigations Report No. 42 Version 4.0; November 2004*.

(C) The Contractor shall submit to the Engineer the materials and procedures for amending soil, if appropriate. Amendment of soil is only permitted to meet the nutrient and organic requirements of the specifications. Nutrient modifications are only permitted through the use of the approved contract specified organic fertilizer and the organic amendment permitted is leaf compost, no other organic amendment is permitted.

(D) The Contractor shall submit quantity records on a weekly basis to Engineer.

(E) Material failing the frequency testing shall not be incorporated into the work and shall be removed from the site at the Contractor's expense.

GI-2.13A.4 CHEMICAL AND PHYSICAL REQUIREMENTS

(A) Engineered Soil is an integral part of the Green Infrastructure System; as such, certification of its material properties is subject to the testing protocols of the Contractor's Quality Control (QA) plan and quality assurance testing by DDC's Quality Assurance and Construction Safety (QACS) Bureau. The QC requirements relative to Engineered Soil are detailed below. The Contractor shall strictly comply with all requirements of its QA

plan. Sufficient lead time is required to develop an appropriate plan for mixing methodologies and ratios that will provide reliable results to meet the parameters listed below.

- (B) Engineered Soil shall be predominately sand (80-85% sand) as classified by the USCS. Based on test results, a determination will be made to ensure that the sand fraction analysis results are capable of supporting proposed vegetation. Engineered Soil shall be free of refuse, hard clods, woody vegetation, stiff clay, construction debris (of any kind), boulders, stones larger than 1-1/2 inches, chemicals, or other deleterious material toxic to any vegetation used on this project.
- (C) Engineered Soil shall have a minimum organic content of 3.0 percent and a maximum of 6.0 percent. If the source soil requires amendment to meet the Engineered Soil organic content requirement, leaf compost will be the only approved admixture. No soil mixing shall be permitted during or after Engineered Soil placement. Engineered Soil shall be tested for compliance with Contract specifications and submitted for approval prior to delivery to the site.
- (D) The organic content of soils shall be determined by a laboratory using the loss on ignition method as described in the Recommended Soil Testing Procedures for The Northeastern United States, 3rd Edition, Northeast Regional Publication, Agricultural Experiment Station, University of Delaware. Bulletin #493, Revised October 2009 or latest.
- (E) The gradation of Engineered Soil shall be determined by a laboratory using the methods of the ASTM D2487 Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System). The gradation of the Engineered Soil as determined by USCS classifications shall be within the following ranges:

Ranges:	0-08% gravel	
	80-85% sand <i>of which:</i>	0-05% coarse sand
		55-75% medium sand
		20-40% fine sand
	5-10% silt	
	3-8% clay	
Classification/sieve size:	<u>75mm to 4.75 mm</u>	<u>gravel</u>
	<u>4.75 mm to 0.075 mm</u>	<u>sand</u>
	<u>0.075 mm to 0.002 mm</u>	<u>silt</u>
	<u>0.002 mm to 0.001 mm</u>	<u>clay</u>

In addition to the above gradation, the Contractor shall provide the percentage of particle sizes corresponding to U.S.D.A. classifications:

Coarse gravel (75 mm to 19 mm)
 Fine gravel (19 mm to 4.75 mm)

Coarse sand	(4.75 mm to 2.00 mm)
Medium sand	(2.00 mm to 0.425 mm)
Fine sand	(0.425 mm to 0.075 mm)

(F) The pH value of Engineered Soil shall be 5-7.0 as determined by an approved laboratory using soil pH (Water (1:1. V:V)) procedures as described in the USDA Soil Survey Laboratory Methods Manual, Soil Survey Investigations Report No. 42 Version 4.0, November 2004. Amendment of soil to lower pH to meet Contract requirements is not permitted.

(G) The soluble salt value of the Engineered Soil shall be (0-4mmhos cm⁻¹) as determined by an approved laboratory using the soluble salt (1:2(V:V)) procedures as described in the Recommended Soil Testing Procedures for The Northeastern United States, 3rd Edition, Northeast Regional Publication, Agricultural Experiment Station, University of Delaware, Bulletin #493, Revised October 2009 or latest.

(H) The value for Kjeldahl Nitrogen shall be as outlined below as determined by an approved laboratory using the USDA Soil Survey Laboratory Methods Manual, Soil Survey Investigations Report No. 42 Version 4.0 November 2004.

Kjeldahl N Acceptable range is 0.06% to 0.25% (with nitrate (NO₃) form of nitrogen not to exceed 20 ppm).

(I) The value for Macro (P, K) Nutrients shall be determined by an approved laboratory using the procedures as described in the *Recommended Soil Testing Procedures for The Northeastern United States, 3rd Edition, Northeast Regional Publication, Agricultural Experiment Station, University of Delaware, Bulletin #493, Revised October 2009* or latest. Ideal values for macro nutrients shall fall within the ranges indicated below:

P	80 lbs/acre to 100 lbs/acre
K	100 lbs/acre to 300 lbs/acre

The value for Micro Nutrients (Mg, Ca, Mn, Zn, Cu and B) shall be determined by an approved laboratory using the procedures as described in the *Recommended Soil Testing Procedures for The Northeastern United States, 3rd Edition, Northeast Regional Publication, Agricultural Experiment Station, University of Delaware, Bulletin #493, Revised October 2009* or latest. Micro Nutrient values and the determination of their compliance with accepted industry standards shall fall on the discretion of the Engineer. Test reports for Micro Nutrients shall be approved in writing by the Engineer prior to delivery of any soil to the work site.

(J) An acid-producing soil test is required to determine the potential for decreases in soil pH after oxidation. The pH value of the solution shall be greater than 4.5 as determined by the USDA Soil Survey Laboratory Methods Manual, Soil Survey Investigations Report No. 42 Version 4.0, November 2004.

(K) Engineered Soil shall not contain any traces of hydrocarbons, petroleum products, chemically prohibited substances or any other elements considered to be toxic to any vegetation used on this Project. The Engineered Soil shall not smell of petroleum or give off other unnatural or toxic odors. Regardless of prior acceptance of sample material should the Engineered Soil delivered to the site seem suspicious in any way; the Resident Engineer shall reject the material. Should the Contractor strongly disagree with the Resident Engineers' Determination, the Contractor may appeal According to the following APPEAL PROCESS:

APPEAL PROCESS: The Resident Engineer shall check for discoloration and evidence of unacceptable contents. If the Resident Engineer and/or Engineer suspects that the fill possesses hazardous or contaminated characteristics, it will be rejected. Should the Contractor contest the Resident Engineer's or Engineer's determination, then samplings of the rejected soil will be sent to a Laboratory which is certified by the New York State Department of Health (NYSDOH) Environmental Laboratory Accreditation Program (E.L.A.P.) for the selected analytical method.

Environmental Analysis shall include, but not be limited to, The United States Environmental Protection Agency (E.P.A or sometimes U.S.E.P.A). Standard Test Methods for determination of Contaminant Concentrations and the Toxicity Characteristic Leaching Procedure (T.C.L.P.) for determination of Leachability of at least 39 Components. The extraction portion of the T.C.L.P. Test shall be performed according to E.P.A.-SW846 Method 1311. Analysis of the extract shall be performed by E.P.A. Methods SW846; 8021 for Volatiles, 8270 for Semi-Volatiles and 6010 for Priority Pollutant Metals (P.P.L.), including lead. Other characteristic tests may include those for ignitability, corrosivity, and reactivity, as deemed required by the Resident Engineer and/or Engineer.

The Test Results shall be compared with Guidance Values developed by the New York State Department of Environmental Conservation (NYSDEC) Division of Spills Management, known as "Spill Technology And Remediation Series" (S.T.A.R.S.) dated 8/92 (Reprinted 7/93), which contains criteria for determining whether petroleum-contaminated soil meets beneficial reuse conditions.

For analyses which are not included in the S.T.A.R.S. guidance, the Test Results shall be compared with Guidance Values developed by the NYSDEC, Bureau of Program Management, Technology Section, for the Division of Hazardous Waste Remediation.

These NYSDEC Guidance Values are known as "Recommended Soil Cleanup Objectives" or "Appendix A" (Revised 1/24/94), and consist of Table 1 for V.O.C.'s, Table 2 for Semi-V.O.C.s, Table 3 for Organic Pesticides/Herbicides and P.C.B.'s, and Table 4 for Heavy Metal. Final values shall be determined by either a health-based level, or a concentration necessary to protect groundwater quality, whichever is lower. Contractor shall be responsible for:

- 1) Payment of fees for services of the N.Y. State certified lab;
- 2) Removal and legal disposal of unacceptable fill;
- 3) Replacement with acceptable fill; and,
- 4) All other expenses, as well as potential fines that may be incurred.

(L) SAND shall consist of sand, free of organic material, loam, debris, frozen soil or other deleterious material which may be compressible. The sand shall be of uniform quality, friable, free from hard clods, stiff clay, hard pan, partially disintegrated stone, stones, lime, cement, ashes, slag, concrete, tar residues, tarred paper, gasoline, motor oil, or other petroleum hydrocarbons, boards, brush, weeds, stalks, roots, sods, chips, sticks or any other undesirable material. Invasive, nonnative seed shall not be allowed in the clean sand material.

Clean sand should conform to the following gradation requirements:

U.S. Standard Sieve Size	Percent Passing by Weight
No. 8	100

GI-2.13A.4. MEASUREMENT AND PAYMENT

Payment for this work shall be deemed to be included in the unit price bid for item No. ROWB-04.

**SECTION GI-2.14
(NOT A PAY ITEM)
MULCH**

GI-2.14.1.INTENT

This section describes mulch covered by Jute and Coir Mesh.

The Contractor shall furnish and place mulch in accordance with the Green Infrastructure Standards, specifications, and directions of the Engineer.

GI-2.14.2.SUBMITTALS

The Contractor shall furnish two (2) labeled samples of the Mulch intended for use in the work for approval and the Engineer's use. The label shall include the manufacturer's product name and the type of material. The Engineer reserves the right to reject on or after delivery any materials which do not, in his opinion, meet these specifications.

GI-2.14.3. MATERIALS

1. Material Description:
 - a. Jute mesh shall be a uniform, open, plain weave cloth of undyed and unbleached single jute yarn. Jute mesh shall be furnished in rolled strips.
 - b. Coir Mesh shall be of a uniform woven matting of single coir yarn made from high strength white (retted) coconut fiber.
 - c. Wood Pegs: Shall be wedge shaped, approximately one inch by two inches by six inches (1" x 2" x 6").
2. The width of the mesh shall be approximately forty-five (45) inches or as specified or approved. Mesh shall be woven as follows:
 - a. Approximately 60 warp ends per yard of width;
 - b. Approximately 40 weft ends per linear yard.
 - c. Weight of Mesh shall be a minimum of 11 ounces per square yard (plus or minus 5%).
 - d. This yarn shall be of a loosely twisted construction having an average twist of not less than 1.6 turns per inch and shall not vary in thickness by more than one-half its normal diameter.
3. Smolder Resistance: The Mesh shall be treated so as to be smolder resistant, meeting the following conditions:
 - a. The cloth shall be made resistant to smoldering and/or after-glow by treatment with non-leaching and non-toxic chemicals. The chemicals must be non-toxic to vegetation and the germination of seed. The chemicals used for this purpose must

resist leaching based on the equivalent of two inches of rain. The cloth itself shall bear some identification mark to differentiate it from untreated jute cloth.

- b. "Test Method" – When a lighted cigarette is placed on the upper or treated surface of the cloth, neither flame nor after-glow will proceed in any direction more than twelve inches (12") from the original position of the cigarette after it has burned out completely.

GI-2.14.4 . CONSTRUCTION METHODS

Mulch shall be applied as a ground cover to the surface of all Right-of-Way Bioswale (ROWB) and Right-of-Way Greenstreets (ROWSGS) after the planting is completed. Mulch shall be applied to a uniform depth and shall be so distributed as to create a smooth, level cover. Mulch shall be cut and placed within two (2) inches of tree and shrub stems. Plants shall not be covered.

Mulch shall be placed on topsoil and seeded areas as shown on the plans or where directed by the Engineer within areas without stretching so that it lays loosely on the soil and in contact with the soil at all points. The upper end of each roll of jute mesh shall be turned and buried to a depth of six (6) inches, with the soil.

Mulch shall be placed parallel to the slope and shall have a minimum lap of six (6) inches.

Jute mesh or coir mesh shall be held tightly to the soil by wood pegs driven firmly into the ground. Wood pegs shall be spaced not more than three (3) feet apart, along the sides of the jute mesh and not more than one (1) foot apart at roll ends or as determined by the Engineer.

MAINTENANCE: The Contractor shall maintain the areas of jute mesh or coir mesh installation until final acceptance of the contract. Maintenance shall consist of providing protection of jute mesh and the repair of areas damaged by equipment, erosion, fire, or other causes, to re-establish the grade and conditions of the area as specified.

GI-2.14.5. MEASUREMENT AND PAYMENT

Payment for this work shall be deemed to be included in the unit price bid for item No. ROWB-04.

**SECTION GI-2.16
(NOT A PAY ITEM)
HIGH DENSITY POLYETHYLENE (HDPE)**

GI-2.16.1 INTENT

This section describes High Density Polyethylene (HDPE) pipe, fittings, flanges, unions, couplings, as specified in the Office of Green Infrastructure (OGI) Standard Design and Guidelines for Green Infrastructure Practices Standard Design and Guidelines for Green Infrastructure Practices drawings, or as required for a complete installation. Furnish and install all HDPE pipe and fittings in accordance with the specifications, the manufacturers' recommendations, and approved shop drawings.

GI-2.16.2 REFERENCES

- (A) HDPE pipe shall conform to the latest standards of the American National Standards Institute (ANSI), the American Society for Testing and Materials (ASTM), the American Water Works Association (AWWA) and the National Sanitation Foundation (NSF).
- (B) HDPE pipe and fittings shall conform to the following ASTM and American Association of State Highway and Transportation Officials (AASHTO) standards:
1. ASTM D3212 Standard Specification for Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals
 2. ASTM D3350 Standard Specification for Polyethylene Plastic Pipe and Fittings Materials
 3. ASHTO M 252 Standard Specification for Corrugated Polyethylene Drainage Pipe
 4. ASTM D1248 Standard Specification for Polyethylene Plastics Extrusion Materials for Wire and Cable
 5. ASTM D7001 Standard Specification for Geocomposites for Pavement Edge Drains and other High-Flow Applications
 6. ASTM D2321 Standard Practice for Underground Installations of Thermoplastic Pipe for Sewers and Other Gravity-Flow Applications

GI-2.16.3 SUBMITTALS

- (A) Submit catalog data for pipe, couplings, and other appurtenances.

GI-2.16.4 CHEMICAL AND PHYSICAL REQUIREMENTS

- (A) The pipe shall be as uniform as commercially practicable in color, capacity, density, and other physical properties.
- (B) The pipe shall be manufactured from high density polyethylene resin in accordance with ASTM D3350 and Pipe Institute (PPI) TR4. The pipe shall conform to cell classification

PE 424420C for PE42 under ASTM D-3350. The pipe material shall conform to the following cell classification requirements:

Property	Value	ASTM Test Procedure Designation
Density	0.955 gm/cm ³	D 1505
Melt Flow Index	1.0	D 1238
Flexural Modulus	80,000 psi	D 790
Tensile Strength @ Yield	3,200 psi	D 638
ESCR	Max Failure = 50%	D1693
Hydraulic Design Basis	Not Pressure Rated	D 2837
UV Stabilizer	C, Black with 2-3% carbon black	D 3350

- (C) The pipe shall contain no recycled materials or compounds.
- (D) HDPE pipe shall be marked either continuously or on intervals not to exceed five (5) feet by indirect printing with the following information:
1. Name and/or trademark of the manufacturer.
 2. Nominal pipe size.
 3. Dimension Ratio (DR).
 4. The letters PE followed by the polyethylene grade per ASTM D-1248, followed by the Hydrostatic Design Basis.
 5. Manufacturing Standard Reference.
 6. Production Code from which time and date of manufacture can be determined.
- (E) Visible defects, such as cracks, creases, crazing, non-uniformly pigmented areas or undispersed raw materials shall not be acceptable and will result in rejection of the pipe by the Engineer.
- (F) HDPE fittings shall be manufactured to the requirements of ASTM D 3212 and this Specification. Fabricated fittings shall be pressure rated to match the system piping.

GI-2.16.5 MANUFACTURERS

- (A) Advanced Drainage Systems, Inc. (ADS)
 4640 Trueman Blvd. Hilliard, OH 43026
 1-800-821-6710
<http://www.ads-pipe.com>

(B) Hancor, Inc.
12370 Jacksontown Rd. #172
Findlay, OH 45840
1-888-367-7473
<http://www.hancor.com>

(C) Lane
LANE Enterprises, Inc.
3905 Hartzdale Drive, Suite 514
Camp Hill, PA 17011
717-761-8175
www.lane-enterprises.com

(D) Other manufacturers of equivalent products may be submitted for approval.

GI-2.16.6. CONSTRUCTION METHODS

- (A) Utilize care when lowering unit into the trench. Handle using nylon slings and two pick points.
- (B) When the unit consists of two sections, place the downstream section first. Properly lube the bell and spigot to connect and home the remaining section.
- (C) All connections to stormwater manholes, stormwater inlets, junctions, and/or inlets should be grouted and water/soil tight.
- (D) Only use couplings to join standard lengths of pipe and as required to complete a straight run of pipe. Do not use couplings to join random lengths of pipe and cuttings from standard lengths.
- (E) Use reducing fittings for all changes in pipe size. Do not use bushings.
- (F) During construction, keep the lines free from foreign matter. The piping shall be left thoroughly clean to the satisfaction of the Engineer.

GI-2.16.7. MEASUREMENT AND PAYMENT

Payment for this work shall be deemed to be included in the unit price bid for item No. ROWB-04.

**SECTION GI-2.16A
(NOT A PAY ITEM)
PVC PIPE**

GI-2.16A.1. INTENT

This section describes Polyvinyl Chloride (PVC) pipe, fittings, flanges, unions, couplings, as specified in these Office of Green Infrastructure (OGI) Standard Design and Guidelines for Green Infrastructure Practices Standard Design and Guidelines for Green Infrastructure Practices drawings, or as required for a complete installation. Install all PVC pipe and fittings in accordance with the specifications, the manufacturers' recommendations, and approved shop drawings.

GI-2.16A.2. REFERENCES

- (A) PVC pipe shall conform to the latest standards of the American National Standards Institute (ANSI), the American Society for Testing and Materials (ASTM), the American Water Works Association (AWWA) and the National Sanitation Foundation (NSF).
- (B) PVC pipe, gasket, and fittings shall conform to the following ASTM and American Association of State Highway and Transportation Officials (AASHTO) standards:
 - 1. ASTM D3034 Standard Specification for Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals
 - 2. ASTM D1784 Standard Specification for Rigid PVC Compounds and CPVC Compounds
 - 3. ASTM D2412 Standard Test Method for Determination of External Loading
 - 4. ASTM D3212 Standard Specification for Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals
 - 5. ASTM D2321 Standard Practice for Underground Installations of Thermoplastic Pipe for Sewers and Other Gravity-Flow Applications
 - 6. ASTM D2152 Standard Test Method for Adequacy of Fusion of Extruded PVC Pipe and Molded Fittings by Acetone Immersion

GI-2.16A.3. SUBMITTALS

- (A) Submit catalog data for pipe, couplings, and other appurtenances.

GI-2.16A.4. CHEMICAL AND PHYSICAL REQUIREMENTS

- (A) The pipe shall be as uniform as commercially practicable in color, capacity, density and other physical properties.
- (B) The pipe shall be manufactured from high density polyvinyl chloride in accordance with ASTM D1784. The pipe shall conform to cell classification 12354 under ASTM D1784. Pipes that conform to a different cell classification because one or more properties are

superior to those of the specified classification are also acceptable. The pipe material shall conform to the following cell classification requirements:

Property	Value	ASTM Test Procedure Designation
Base Resin	PVC homopolymer	D 4216
Notched Izod	0.65 ft-lb/in	D 256
Tensile Strength	5,000 psi	D 638
Tensile Modulus	400,000 psi	D 638
DTUL @ 264 psi	154° F	D 648

- (C) The pipe shall contain no recycled materials or compounds.
- (D) PVC pipe shall be marked either continuously or on intervals not to exceed five (5) feet by indirect printing as specified in ASTM D1785
- (1) Name and/or trademark of the manufacturer.
 - (2) Nominal pipe size.
 - (3) Material designation code.
 - (4) Dimension Ratio (DR).
 - (5) Manufacturing Standard Reference.
 - (6) Production Code from which time and date of manufacture can be determined.
- (E) Visible defects, such as cracks, creases, crazing, non-uniformly pigmented areas or undispersed raw materials shall not be acceptable and will result in rejection of the pipe by the Engineer.
- (F) PVC fittings shall be manufactured to the requirements of ASTM D 3212 and this Specification. Fabricated fittings shall be pressure rated to match the system piping.

GI-2.16A.5. MANUFACTURERS

- (A) Advanced Drainage Systems, Inc (ADS)
 4640 Trueman Blvd. Hilliard, OH 43026
 Ph:(800)-821-6710
<http://www.ads-pipe.com>

- (B) Hancor, Inc.
12370 Jacksontown Rd. #172
Findlay, OH 45840
Ph: 1-888-367-7473
<http://www.hancor.com>
- (C) Royal Municipal Solutions
131 Regalcrest Court
Woodbridge, ON L4L 8P3
Ph: 800.387.2789
<http://www.royalbuildingproducts.com/>
- (D) National Pipe & Plastics, Inc.
3421 Old Vestal Road
Vestal, NY 13850
Ph: 800.836.4350
<http://www.nationalpipe.com/>
- (E) Or an approved equivalent

GI-2.16A.6. CONSTRUCTION METHODS

- (A) Utilize care when lowering unit into the trench. Handle using nylon slings and two pick points.
- (B) When the unit consists of two sections, place the downstream section first. Properly lube the bell and spigot to connect and home the remaining section.
- (C) Only use couplings to join standard lengths of pipe and as required to complete a straight run of pipe. Do not use couplings to join random lengths of pipe and cuttings from standard lengths.
- (D) During construction, keep the lines free from foreign matter. The piping shall be left thoroughly clean to the satisfaction of the Engineer.

GI-2.16A.7. MEASUREMENT AND PAYMENT

Payment for this work shall be deemed to be included in the unit price bid for item No. ROWB-04.

**SECTION GI-2.17
(NOT A PAY ITEM)
STONE GABION**

GI-2.17.1. INTENT

This section describes gabions. Stone Gabions shall be installed where required, as shown on the Green Infrastructure (GI) Standards and in accordance with the specifications and the directions of the Engineer.

GI-2.17.2. KIND

(A) A gabion is a wire mesh container filled with stone at the project site to form a stable stone basket. The gabion shall have the shape and dimensions as shown on the Contract Drawings and as directed by the Engineer. Wire mesh openings shall be of the necessary size to contain the crushed stone.

(B) The wire mesh shall be non-raveling mesh made of twisting continuous pairs of wires to form hexagonal shaped openings which are interconnected to adjacent wires. The wire mesh shall be of sufficient strength to hold the open graded stone in place, and rigid enough to hold the shape as shown on the contract drawings. The wire shall be coated with PVC and shall be free from any cracks or breaks after the fabrication of the mesh. Fasteners used to assemble and interconnect the individual units shall be made of stainless steel.

(C) The stones for the gabion shall be between three (3) and four (4) inches in diameter. The stones shall meet the specifications of Section GI-2.07 – Open Graded Stone.

GI-2.17.3. CONSTRUCTION METHODS

Gabions shall be filled with stone on site and installed as per the Standard Design and Guidelines for Green Infrastructure Practices, Contract Drawings, and as directed by the Engineer. The gabions are to be installed at all bioswales except those with Stone Columns.

GI-2.17.4 MANUFACTURERS

- (A) Maccaferri
10303 Governor Lane Boulevard
Williamsport, Maryland 21795
PH: 800-638-7744
www.maccaferri-usa.com/home/13890.html

- (B) Terra Aqua Gabions, Inc.
1415 North 32nd Street
Fort Smith, Arkansas 72904
PH: 800-736-9089
www.terraaqua.com

- (C) Terra Aqua Gabions, Inc.
1415 North 32nd Street
Fort Smith, Arkansas 72904
PH: 800-736-9089

- (D) Or Approved Equal

GI-2.17.5. MEASUREMENT AND PAYMENT

Payment for this work shall be deemed to be included in the unit price bid for item No. ROWB-04.

**SECTION GI-2.19
(NOT A PAY ITEM)
HDPE STORMWATER CHAMBER**

GI-2.19.1 . INTENT

This section describes the High Density Polyethylene (HDPE) STORMWATER CHAMBER. The purpose of the HDPE STORMWATER CHAMBER is to provide increased storm runoff detention capacity in a Right of Way Bioswale.

GI-2.19.2 . KIND

The stormwater chamber shall be manufactured of high molecular weight high density polyethylene in an International Organization for Standard (ISO)-9001certified manufacturing facility and meet American Society for Testing and Materials (ASTM) D-3350 Cell Class 324420C. Chambers will be manufactured with an open bottom and side walls. If approved by the manufacturer, the units may be trimmed to custom length. The stormwater chamber should conform to the dimensions as shown in the Contract Drawings and New York City Department of Environmental Protection (NYCDEP) Standard Design and Guidelines for Green Infrastructure Practices drawings with placement on bedding and backfill as shown. The minimum acceptable storage volume shall be 2 cubic feet per linear foot.

GI-2.19.3 SUBMITTALS

(A) The Contractor, prior to the start of work, shall submit to the Engineer for approval catalog samples and cut sheets of the proposed material including certification that materials meet specified requirements and proposed dimensions of the Contract Drawings and NYCDEP Standard Design and Guidelines for Green Infrastructure Practices Drawings.

GI-2.19.4 CONSTRUCTION METHODS

- (A) Deliver materials to site in manufacturer's original, unopened packaging, with labels clearly identifying product name and manufacturer.
- (B) Storage - Store materials in clean, dry area in accordance with manufacturer's instructions.
- (C) Handling - Protect materials during handling and installation to prevent damage.
- (D) Prior to the installation of the stormwater chamber, the Contractor shall excavate the Bioswale area to the satisfaction of the Engineer.
- (E) Install stone base, stormwater chamber, and backfill as indicated on the Standard Design and Guidelines for Green Infrastructure Practices.

GI-2.19.5. MANUFACTURERS

(A) CULTEC Inc.
P.O. Box 280
878 Federal Rd.
Brookfield, CT 06804
203-775-4416
www.cultech.com

(B) Stormtech
StormTech LLC
20 Beaver Road, Suite 104
Wethersfield, CT 06109
PH: 860-529-8188
www.stormtech.com

(C) Or an approved equivalent

GI-2.19.6. MEASUREMENT AND PAYMENT

Payment for this work shall be deemed to be included in the unit price bid for item No. ROWB-04.

**SECTION GI-4.02
(NOT A PAY ITEM)
EARTH EXCAVATION**

GI-4.02.1. DEFINITION, EARTH EXCAVATION

(A) Earth Excavation shall include the removal and disposal of all materials of whatever nature encountered in the prosecution of the work, unless otherwise specified. All materials of whatever nature encountered shall be defined as including, but not limited to, the following:

- (1) soil;
- (2) stones;
- (3) soft weathered rock that can be excavated by mechanical means other than air hammer or drilling and blasting;
- (4) miscellaneous fill and refuse, trees under four (4") inches caliper, stumps up to 6" diameter, anything thrown away or rejected as worthless or useless (both organic and inorganic material) that can be excavated by mechanical means other than air hammer or burning and cutting;
- (5) sidewalk pavements (all types) within limits of trenches and excavations and cutbacks;

(B) Earth Excavation shall not include the following:

- (1) Boulders in open cut as defined in Subsection 4.03.1;
- (2) Contaminated or hazardous materials that materially affect the cost of removal and disposal to the Contractor; and,
- (3) existing man-made objects or structures that are not shown on the contract drawings or indicated in the specifications, that could not reasonably have been anticipated by the Contractor, were not anticipated by the City, and which materially affect the cost of removal and disposal to the Contractor, as determined by the Commissioner.

(C) If the City anticipates that any of the items in paragraph (B) above need to be excavated and disposed of, a separate contract item will be included in this contract.

If a separate contract item is not included in the contract and the City determines: (1) that the Contractor could not have reasonably anticipated that such materials would need to be excavated and disposed of; and, (2) that such excavation and disposal would materially affect the Contractor's costs; then such excavation and disposal shall be paid for as Extra Work under Article 26 of the Standard Construction Contract.

GI-4.02.2. RELATED SPECIFICATIONS

SECTION 6.02 – Unclassified Excavation of New York City Department of Transportation (NYCDOT) Standard Highway Specifications.

GI-4.02.3. EXECUTION

(A) The Contractor shall excavate all materials to the established lines and grades for the construction of all facilities included in this Contract, or as shown and specified, in accordance with the requirements of the latest NYCDOT Standard Highway Specifications Section 6.02, except as otherwise specified herein. Excavation shall include removing boulders of size less than one-half cubic yard. The limits of excavation shown on the drawings indicate the extent of work to be performed by the Contractor. The Contractor shall furnish and install any temporary side slope supports, bracing, and sheet piling required to perform the excavation to the depths and limits indicated.

(B) Water in Excavations - Prior to starting the work, the Contractor shall submit to the Engineer for approval, a detailed description of the method he proposes to use to prevent the collection of water in excavation during construction, including a coordinated sequence of operation for the entire project. Such prevention shall include, but not be limited to, providing drainage and diversion of runoffs by means of sandbagging and/or removal by pumping. Approval by the Engineer will not relieve the Contractor of his responsibility for the safety of the work, existing structures and adjacent property.

(C) Protection of Underground Utilities - Determine location of underground utilities and perform work in a way that shall avoid possible damage. Hand excavate as required. The Contractor assumes responsibility for damage to underground utilities when excavating and is required to call "One Call" @ 800-272-4480 a service that marks underground facilities on the surface, prior to excavation. Maintain grade stakes set by others until removal is approved by Engineer. However, the Contractor is advised that the provisions of 16 New York Codes, Rules and Regulations (NYCRR) Part 753 ("One Call") do not apply to City owned utilities. It shall be the Contractor's responsibility to determine the location of the City owned underground distribution systems. The Contractor shall make his own field observations and research the City's records to determine the location of such facilities before the commencement of excavation.

(D) Trees, Shrubs, and Grassed Areas: Trees, shrubs and grassed areas which are to remain shall be protected by fences, barricades, wrapping or other methods as shown, specified or approved by the Engineer and shall be replaced at no added cost to the City in the event they are destroyed or damaged as a result of excavation and or dewatering by the Contractor. Trees shall not be removed without approval of the Engineer unless shown on the Contract Drawings or specified herein. Dewatering shall be done as per Section Green Infrastructure (GI)-5.02, contained herein.

(E) Vehicles used to transport excavated materials to disposal sites shall, when traveling, be watertight and of such a construction as to prevent spillage. All method of transportation and disposal shall be subject to the approval of the Engineer.

(F) The Contractor shall provide a final Survey Data Report for each site which shall include, but not be limited to, the excavation area after all excavation work under this Section has been completed. This report shall include measurements of all final dimensions of the excavation area. The Contractor shall employ a tripod-supported auto-fire or auto-scan laser with built-in

angle and distance measurements and software capabilities. No separate payment will be made for this work, the cost of which shall be deemed included under this Item GI-4.02.

GI-4.02.4. MEASUREMENT AND PAYMENT

Payment for this work shall be deemed to be included in the unit price bid for item No. ROWB-04.

SECTION GI-4.03
(NOT A PAY ITEM)
EXCAVATION OF BOULDERS IN OPEN CUT

GI-4.03.1. DEFINITION

Excavation of boulders in open cut shall include the excavation, removal and disposal of boulders or parts thereof from within the excavation limits, more than one-half (1/2) cubic yard in volume. The term boulders as used herein shall include riprap, rock fill, thrust blocks and loose masonry. It shall not include pavement and pavement foundation, or existing sewer or water main structures.

GI-4.03.2. REMOVAL

The Contractor may elect to remove an entire boulder when partly extending into the trench. Boulders shall be removed from the site of the work immediately after being excavated and measurements taken by the Engineer. Excavated boulders shall become the Contractor's property and shall be properly disposed of at the Contractor's expense.

GI-4.03.3. NO SEPARATE PAYMENT

No separate or additional payment will be made for excavating, removal and disposal of boulders one-half (1/2) cubic yard or less in volume, the cost thereof shall be deemed included in the prices bid for all items of this contract.

No separate or additional payment will be made whenever the Contractor elects to remove an entire boulder that extends partly into the excavation limits. Payment will only be made for that volume of the boulder that is within the excavation limits. No separate or additional payment will be made for the removal of boulders or for the filling of voids left by the removal of boulders beyond the limits of excavation.

GI-4.03.4. MEASUREMENT AND PAYMENT

Payment for this work shall be deemed to be included in the unit price bid for item No. ROWB-04.

**SECTION GI-5.02
(NOT A PAY ITEM)
DEWATERING**

GI-5.02.1. DESCRIPTION

Construction dewatering shall consist of controlling surface water such that excavation required on the Contract Drawings can be performed to required depths in substantially dry and stable conditions.

GI-5.02.2 MATERIALS

(A) All pumps used in the dewatering operation shall be electric and shall be powered directly from a Con Edison drop, unless otherwise unavailable.

GI-5.02.3. CONSTRUCTION METHODS

- (A) The Contractor shall at all times during the progress of the work keep the excavations free from water. The water from the excavations shall be disposed of in such a manner as will not cause injury to the public health, nor to public or private property, nor to the work completed or in progress, nor to the surface of the streets, nor cause any interference with the use of the same by the public. All sewers used for disposal of water from the excavation during construction shall be acceptably cleaned.
- (B) Surface water on and around the site shall be collected into local sumps by means of trenches, pipes, or other means. The Contractor shall discharge the water into the City wastewater collection system. Direct surface water to minimize surface erosion, ponding and softening of slopes and berms, including haul roads and equipment working stations. Slope protection by means of polyethylene sheets, held in place by tires or otherwise, shall be provided locally as required. At the perimeter of the excavation, surface water is to be directed into the storm sewer system and not permitted to enter the excavation. Curbs shall be maintained and, where necessary, extended across intersections, curb cuts and defective curb sections.
- (C) The Contractor shall, with the Contractor's own equipment, provide dewatering where required at no additional cost to the City. The cost for all labor, equipment, materials, etc. required to dispose of water from the excavation shall be deemed included in the prices bid for all items of the contract.
- (D) All dewatering and discharge pipes and hoses which cross traveled roadways shall be placed in such a manner so as to eliminate any disruption of traffic flow.

GI-5.02.4. MEASUREMENT AND PAYMENT

Payment for this work shall be deemed to be included in the unit price bid for item No. ROWB-04.

**SECTION GI-5.09
(NOT A PAY ITEM)
WATERING AND WEEDING DURING MAINTENANCE PERIOD**

GI-5.09.1. DESCRIPTION

The Contractor shall maintain and cultivate the healthy growth of all plantings in the planted area after installation, in accordance with the specifications and contract drawings during the maintenance period of the project. For the purposes of this item, the maintenance period shall begin after the completion of planting, and terminate at the completion of the maintenance period. No separate payment shall be made for the work of this specification.

GI-5.09.2. SUBMITTALS

(A) The Contractor's Landscape Subcontractor shall submit a watering and weeding plan and maintenance schedule prior to the installation of plant material, to be approved by the Engineer. The plan shall include proposed methods of watering and weeding, including but not limited to the use of tree gators (bags), sprinklers, drip hoses, irrigation, tanker vehicles and hand watering, etc., as well as manual weeding and weeding tools.

(B) The approved plan and schedule do not relieve the Contractor in any way from any aspect of the replacement of dead plant material. The Contractor's Landscape Subcontractor may alter the maintenance schedule based on weather and field conditions.

GI-5.09.3. CONSTRUCTION METHODS

(A) The Contractor responsibilities under this section consists of watering and weeding after installation as required to maintain installed plant material in a healthy and vigorous condition in the specified Engineered Soil, in accordance with the specifications and Contract Drawings.

(B) Watering shall take place at one-week intervals from May 1 through October 31, for a total of twenty-seven (27) waterings per year or a total of fifty-four (54) waterings for the 2-year guarantee period. Each week, the individual plants shall receive the following volume of water:

<u>PLANT SIZE</u>	<u>VOLUME OF WATER (gallons)</u>
# 1 container	2
# 2 container	2.5
# 3 container	3
# 7 container	6
1" – 2" caliper	18
2" – 3" caliper	30

This is the maximum amount of water to be applied each week. The Engineer may order less watering based on weather and soil conditions.

Watering shall not be done for any given week if soil is saturated from recent rains or snowmelt. During extended dry periods, the Engineer may order more frequent watering than scheduled or during non-scheduled periods. However, the total number of 54 watering cycles will not be exceeded.

Watering shall be applied in such a manner as to not damage plants or remove mulch (jute mesh) and stakes. Watering shall not cause the uprooting or the exposure of plant roots. Damage resulting from improper watering shall be immediately repaired at the Contractor's expense.

GI-5.09.4. MAINTENANCE

(A) Horticultural Maintenance shall consist of the weeding, removal of litter and general maintenance and replacement of plant material.

(B) Green Infrastructural Maintenance shall consist of cleaning out and disposing of sediment from inlet and outlet structures and weep holes (if any) as necessary to allow water to move freely in and out of the site. Layers of mulch (jute mesh) (if any) and stone in or around the inlet, storm water flow path and ponding areas may require removal and replacement as deemed necessary by the Engineer, just prior to the end of the contract guarantee period. This work should be performed during a time when the soil is dry, using a flat-bottomed shovel.

(C) Maintenance should occur at a minimum of once per month and as needed following significant rainfall events. Visually inspect the site for erosion, including inlet and outlet structures, embankments, side slopes, and check dams. Symptoms of erosion can include erosive gullies or areas of bare soil. Remove any litter directly covering and immediately upstream or downstream of inlets and outlets so that the drainage path is clear. The top of the mulch (jute mesh) (if any) should be at least two inches below the lowest point of the inlet/outlet to minimize blockage.

GI-5.09.5. MEASUREMENT AND PAYMENT

Payment for this work shall be deemed to be included in the unit price bid for item No. ROWB-04.

**SECTION GI-5.10
(NOT A PAY ITEM)
STONE COLUMN**

GI-5.10.1. DESCRIPTION

Furnish and install stone columns as shown on the Standard Design and Guidelines for Green Infrastructure (GI) Practices drawings and in accordance with the specifications and directions of the Engineer.

GI-5.10.2. MATERIALS

- (A) Open-graded stone shall comply with Section GI-2.07 – Open Graded Stone Base.
- (B) Pipe and fittings shall comply with Section GI-2.16A – PVC Pipe.
- (C) Geotextile fabric shall comply with Section GI-2.09 – Geotextile Fabric.
- (D) Select granular fill material shall comply with Section 6.67 of the New York City Department of Transportation (NYCDOT) Standard Highway Specifications.

GI-5.10.3. CONSTRUCTION METHODS

- (A) The Contractor shall auger a fourteen (14) inch diameter casing a minimum of five (5) vertical feet into the permeable soil layer. The final depth of the stone column shall be determined by the Engineer but shall be no deeper than twenty (20) feet.
- (B) The stone column shall consist of:
 - (1) Twelve (12) inch inside diameter perforated or slotted PVC pipe
 - a. The pipe length shall be determined by the Engineer.
 - (2) Twelve (12) inch inside diameter solid PVC pipe
 - a. The pipe length shall be determined by the Engineer.
 - b. Extend the pipe two (2) inches above the low point of the Bioswale.
 - (3) Coupling to connect the perforated or slotted PVC pipe to the solid PVC pipe.
 - (4) Twelve (12) inch round grate (perforated or slotted end cap). Manufactured with perforations or slotted grate.
 - a. ASTM D5208 Standard Practice for Fluorescent Ultraviolet (UV) Exposure of Photodegradable Plastics
 - b. ASTM Standard D4329 Practice for Fluorescent Ultraviolet (UV) Lamp Apparatus Exposure of Plastics

- (C) Wrap nonwoven geotextile fabric around the perforated or slotted pipe and fasten by collar to the solid pipe.
- (D) Pull casing and use select granular fill to fill the annular space between the stone column pipe and the hole.
- (E) Fully saturate stone column and surrounding fill. Once the fill is saturated, additional granular fill should be used to bring to grade. Saturate again and repeat as necessary.
- (F) Fill the attached perforated or slotted and solid PVC pipe with open-graded stone and seal with a perforated cap
- (G) Space the stone columns in accordance with the Contract Drawings and as directed by the Engineer.
- (H) Middle stone column within the 20'x 5' Right Of Way (R.O.W.) Bioswale only installed in a planting bed with no tree.
- (I) During construction, keep the column free from foreign matter. The piping shall be left thoroughly clean to the satisfaction of the Engineer.

GI-5.10.4. MEASUREMENTS AND PAYMENT

Payment for this work shall be deemed to be included in the unit price bid for item No. ROWB-04.

SECTION GI-5.11
(NOT A PAY ITEM)
WELDING

GI-5.11.1. DESCRIPTION

All welding shall be performed in accordance with American National Standards Institute (ANSI)/ American Welding Society (AWS) D1.1 and ANSI/AWS D1.4. No welding shall be performed when the base metal temperature is lower than 32 degrees Fahrenheit.

GI-5.11.2. MATERIALS

(A) All welding equipment, electrodes, welding wire and fluxes shall be capable of producing satisfactory welds when used by a qualified welder or welding operator performing qualified welding procedures.

(B) All welding equipment and materials shall comply with the applicable requirements of ANSI/AWS D1.1 and ANSI/AWS D1.4.

GI-5.11.3. CONSTRUCTION METHODS

(A) Each welder, welding operator and tacker assigned to work on this Contract shall be certified in conformance with ANSI/AWS D1.1, Section 4. Welders shall also be New York City certified, and all welding shall be done in conformity with the New York City Building Code (NYBC) and New York City Board of Standards & Appeals (BS&A).

(B) Contract Drawings will include the following information:

(1) Size, length, type and location of welds.

(2) Location of welds for which non-destructive testing is required. When location of non-destructive testing is not shown, it will be indicated by the Engineer in the field.

(C) Workmanship and techniques for welded construction shall conform to the requirements of ANSI/AWS D1.1 and AISC-04. When ANSI/AWS D1.1 and AISC- 04 are in conflict, the requirements of ANSI.AWS D1.1 shall govern.

(D) Welding of reinforcing shall conform to the requirements of ANSI/AWS D1.4 and the Detailed Specifications. Welds shall develop a minimum of 85,000 psi tensile strength. Bars to be welded shall be cut by means of an oxyacetylene torch or by sawing. Ends shall be free of dirt, oxide scale, oil, grease, or other foreign matter. Sheared ends of bars shall be trimmed back at least 1/2-inch by sawing or flame cutting. Preheat and interpass temperature shall conform with ANSI/AWS D1.4. Bars having a carbon equivalent content in excess of 0.50 percent shall not be welded.

(E) Where dissimilar steel are welded together, the procedure used shall be the same as the one used for the lower strength steel.

(F) All groove welds shall be 100 percent complete penetration welds as defined in ANSI/AWS D1.1 or shown in ANSI/AWS D1.4 for reinforcing steel, regardless of whether a backup plate is shown or whether the supplementary backing weld or melt through symbol is

included, in each groove-weld symbol shown unless partial penetration is included in the weld symbol.

(G) Gun welded studs shall conform with the requirements of ANSI/AWS D1.1, Section 7.

(H) Upon completion of welding, all weld splatter, flux, slag and burrs left by attachments shall be removed. Welds shall be repaired to produce a workmanlike appearance with uniform weld contours and dimensions. All sharp corners of material which is to be painted or coated shall be ground to a minimum of 1/32-inch on the flat.

(I) Dimensional tolerances for welded construction, details of welds, and quality of welds shall be in accordance with the applicable requirements of ANSI/AWS D1.1, ANSI/AWS D1.4 and the Contract Drawings.

(J) The welding shall be subject to inspection and tests in the shop and project site. Inspection and tests in the shop will not relieve the Contractor of the responsibility to furnish weldments of satisfactory quality.

(K) All welding exhibiting any cracks, either in the weld metal or the parent metal, will be rejected.

(L) Defective or unsound welds or base metal shall be corrected either by removing and replacing the entire welds.

GI-5.11.4. MEASUREMENT AND PAYMENT

Payment for this work shall be deemed to be included in the unit price bid for Item No. ROWB-04.

**SECTION GI-5.21
(NOT A PAY ITEM)
SAWCUTTING PAVEMENT**

GI-5.21.1. DESCRIPTION

This section describes the sawcutting of both sidewalk and roadway pavements for the opening of pavements under other contract items.

GI-5.21.2. MATERIALS

(NO TEXT)

GI-5.21.3. CONSTRUCTION METHODS

(A) SAWCUTTING OF PAVEMENTS

(1) The Contractor will be required to saw cut all asphaltic pavement; concrete pavement; asphaltic top course on concrete base pavement; and all other roadway pavements specified, or ordered as follows:

- (a) full-depth saw cuts of pavement along the initial opening limits of all trenches and excavations;
- (b) full-depth saw cuts of pavement along the edges of all trenches and excavations for cutbacks of trenches and excavations;
- (c) full-depth saw cuts of asphaltic top course along the edges of all trenches and excavations for cutbacks of asphaltic top course;

NOTE: A "FULL-DEPTH SAW CUT" shall be defined as the cutting of pavement by the use of a dust controlling water lubricated rotary blade concrete and pavement saw cutting machine. (Vermeer type cutting machines will not be permitted for use in order to make full-depth saw cuts.)

- (2) The Contractor will be required to full-depth saw cut all sidewalks and curbs along the limits of all trenches and excavations or as directed by the Engineer.
- (3) All saw cutting shall be done with approved power tool equipment.

(B) BREAKING EXISTING PAVEMENT

All pavements shall be initially opened as specified in Subsection Green Infrastructure (GI)-5.21.2. paragraphs (A)(1)(a) and (A)(2), above. Unless otherwise specified, the remainder of pavements between full depth saw cuts may be opened with hand-held "Jack" Hammers. The use of Hoe-Rams will not be permitted.

The area under construction shall be kept as clean and neat as possible and no material shall restrict water flow in gutter areas. These requirements shall be the responsibility of the Contractor.

(C) EXCAVATION OF PAVEMENTS

Excavation of roadway pavement will be paid for under Item 6.02 AAN; excavation of sidewalk pavement within the limits of the Green Infrastructure will be paid for under GI-4.02; excavation of sidewalk pavement outside the limits of the Green Infrastructure where new sidewalk is to be placed will be deemed included in the unit price bid for the new sidewalk; and, excavation of curbs will be deemed included in the unit price bid for the new curb construction.

All pavement removal shall be done in such a manner so as not to disturb the existing pavements outside the specified and ordered area of removal and restoration.

For the removal and restoration of brick or block pavements the edges of the pavement shall be toothed or raked back.

GI-5.21.4. MEASUREMENT AND PAYMENT

Payment for this work shall be deemed to be included in the unit price bid for item No. ROWB-04.

SECTION GI-5.35
(NOT A PAY ITEM)
SLEEVE FOR UTILITY CROSSINGS

GI-5.35.1.1. DESCRIPTION

The Contractor shall furnish and install High-Density Polyethylene (HDPE) split sleeve pipes to protect utilities in concrete ducts crossing Green Infrastructure. Each split sleeve pipe shall have a wire (not wire mesh) reinforced concrete collars on each side of the Green Infrastructure, as shown on the Standard Design and Guidelines For Green Infrastructure Practices drawings.

Sleeve lengths shall range from six (6') feet to eight (8') feet depending on the width of the Green Infrastructure or at any given location it shall be two (2') feet greater than the width of the Green Infrastructure.

GI-5.35.1.2. MATERIALS

(A) HDPE SPLIT SLEEVE PIPE shall be of the diameter and length required as shown on the Contract Drawings or as directed by the Engineer. HDPE SPLIT SLEEVE PIPE shall comply with the requirements of Section GI-2.16, contained herein.

(B) SEALING GASKET shall be as recommended by the manufacturer of the sleeve.

(C) CONCRETE shall be Type B-32 comply with the requirements of Sections 3.05 and 4.06 in the New York City Department of Transportation (NYCDOT) Standard Highway Specifications.

(D) WIRE REINFORCEMENT shall comply with the requirements of Sections 4.14 in NYCDOT Standard Highway Specifications. Size and spacing shall vary in accordance with the cross sectional area of the utility and as directed by the Engineer.

(E) MORTAR, if required for end capping, shall comply with the requirements of Section 3.07 in the NYCDOT Standard Highway Specifications, Type 1, Mortar, except that the proportions shall be one (1) part of cement to one and one-half (1-1/2) parts of sand and that the ingredients may be mixed by hand.

(F) SAND fill bedding the utilities in the split sleeve pipe shall be meet the requirements of Section 2.21 in the NYCDOT Standard Highway Specifications.

GI-5.35.1.3. METHODS

(A) Duct spacers shall be used to hold utilities in position to maintain a two (2") separation between the concrete utility duct and the HDPE sleeves when encasing utilities within the split sleeve pipe.

(B) The space between the utility and the sleeve shall be filled with sand as directed by the Engineer.

(C) Immediately after the Engineer has inspected and approved the encasement, the HDPE Split Sleeve pipe shall be backfilled as per the appropriate items.

(D) Concreting shall comply with the requirements of Section 4.06 of NYCDOT Standard Highway Specifications.

GI-5.35.1.4. DAMAGE TO THE UTILITY CROSSINGS.

Any damage caused to the utility crossings during the construction or any cause whatsoever, whether in or out of the trench, shall be made good at the sole expense of the Contractor.

GI-5.35.1.5. MEASUREMENTS AND PAYMENT

Payment for this work shall be deemed to be included in the unit price bid for item No. ROWB-04.

**SECTION GM-30
(NOT A PAY ITEM)
EPOXY BONDED STONE STRIP BED**

GM-30.1. INTENT

This section describes the epoxy bonded stone strip bed. The Contractor shall install a stone strip bed of the size and depth as shown on the Green Infrastructure (GI) Standards and apply an epoxy bonding agent to the stone strip where indicated on the Drawing.

GM-30.2. MATERIALS

- A) Crushed stone shall conform to the New York City Department of Transportation (NYCDOT) Standard Specification Section 2.02, Type 1- Broken Stone, Grade B, and shall be washed and conform to the following gradation as modified below:

Percentage of Dry Weight	
Sieve Size	Passing Designated Sieve Size
1"	100
0.5"	25-50
0.25"	0-10

- B) Epoxy Bonding agent shall be a clear, non-toxic, Ultraviolet (UV) -stable bonding. Minimum properties of approved epoxy systems include:
1. Ultimate tensile strength - 4,000 psi
 2. Compressive strength – 18,800 psi
 3. Flexural Strength – 11,000 psi
 4. Bond strength – 1,500 psi

GM-30.3. CONSTRUCTION METHODS

Stone Strip shall be placed as per Drawings. Then Epoxy Bonding Agent shall be applied to Stone Strip in place where indicated on the Drawings.

Epoxy bonding agent is to be sprayed on clean and dry stone surfaces to sufficiently bond top layer of stone but at a rate no less than recommended by the manufacturer. Do not install if rain is expected within 12 hours. Do not cover area with plastic. Install when outdoor temperature is 50 degrees or above and will not drop below 50 degrees F for at least 12 hours. Allow 24 hours to cure. If the temperature is around 50 degrees F then it may take up to 48 hours to cure.

SUBMITTALS:

Prior to the procurement of epoxy bonding agent, the following information and samples are required for review and approval for each source:

1. Product Data: Submit product data provided by manufacturer.
2. Submit a copy of the Material Safety Data Sheet (MSDS) for Epoxy Bonding Agent.

GM-30.4. Epoxy BONDING AGENT SUPPLIERS

1. Pond Armor
P.O. Box 6558
Santa Maria, CA 93456
phone: 800-716-1545 · fax: 805-922-4580
email: info@pondarmor.com
www.pondarmor.com

2. Epoxy Bonding Agent #17
Epoxy.com
A Division of Epoxy Systems, Inc.
20774 W. Pennsylvania Ave.
Dunnellon, Florida 34431
Ph:(352) 489-1666
<http://www.epoxy.com/>

3. Or an approved equivalent.

GM-30.5. RELATED SECTIONS

Section GI-2.06 – Landscape Edging, contained herein.

GM-30.6. MEASUREMENT AND PAYMENT

Payment for this work shall be deemed to be included in the unit price bid for item No. ROWB-04.

**SECTION PM-01 through PM-24
(NOT A PAY ITEM)**

TREES, SHRUBS, WOODY AND HERBACEOUS PLANT MATERIAL

PM-1. INTENT

This section describes woody and herbaceous plant material.

PM-2. KIND

Plant names, size, and grading standards shall conform to those prepared by the American Association of Nurserymen Horticultural Standards, 1998 Edition, unless otherwise specified. No substitution shall be permitted, except with the written permission of the Engineer in consultation with the NYC Department of Parks and Recreation Green Infrastructure Liaison.

PM-3. QUALITY

(A) All plants shall be typical of their species or variety. They shall have normal, well-developed branches and vigorous fibrous root systems. They shall be sound, healthy, vigorous plants free from defects, disfiguring knots, sun scald injuries, dead or broken branches, abrasions of the bark, plant diseases, insect eggs, borers, and all forms of infestation and weeds. All plant material shall be tagged by the Engineer before the purchase or use of any such material.

(B) All plants shall be nursery-grown, unless otherwise stated. All shrubs shall have been growing under similar climatic conditions as the locations of this project for at least two (2) years prior to the date of the contract. Plants held in storage will be rejected if they show signs of growth during storage. Collected plants shall be taken from a subgrade favorable to good root development. All collected material shall be clean sound stock, free from decaying stumps.

(C) Herbaceous plants, vines, and groundcover shall be vigorous healthy plants, a minimum two (2) years old, from cuttings, seed, or division, with well-developed root systems and crowns, as specified in the Plant Schedule. Bulbs, corms, tubers and rhizomes shall be firm, non-desiccated, and certified free of disease and viral infection, of the sizes, grades, and varieties indicated in the Plant Schedule.

PM-4. PLANT SOURCES FOR NATIVE PLANTS ONLY, WHERE APPLICABLE

(A) Native plant stock must be used when specified on designs and should be used whenever possible and appropriate. Native plant material must be derived from the local genotypes of the native plants specified. For purposes of this native plant material paragraph, "local" shall mean within 250 miles from the planting site. However, a reasonable effort shall be made to obtain sources of plant material as close to the planting site as possible. All plants must have been grown in a hardiness zone no warmer than Zone 7 or colder than Zone 5 as determined by the USDA Agricultural Research Service, Plant Hardiness Zone Map. Plant quality shall be typical of their species. Plant material should exhibit the range of variation typical of local genotypes of the species as determined by the Engineer. They shall have normal branching and vigorous fibrous root systems. They shall be sound, healthy plants, free from sunscald injuries, or other mechanical injury, plant diseases, insect eggs, borers and all forms of infestations. All plants shall be nursery grown unless otherwise stated. Collected material will not be accepted. Except as may otherwise be specified in this native plant material paragraph, all other sections of this Plant Material specification shall also apply to the Native Plants. The native plant material, subject to availability and adherence to the requirements of this paragraph, may be purchased from the following nurseries or approved equal nurseries:

Greenbelt Native Plant Center, Staten Island, NY

Pineland's Nursery, Columbus, NJ

Wild Earth, Freehold, NJ

Sylva Native, Glen Rock, PA

PM-5. ORDERING PLANT MATERIALS

(A) The Contractor shall notify the Engineer of the unavailability of any tree, shrub, herbaceous plant, or bulb species designated in the contract, as well as provide confirmation to the Engineer of all orders from all sources of supply. Any request for species substitution due to unavailability must be submitted in writing to the Engineer, within fifteen (15) days of the award of contract. The Contractor must include the names and addresses of at least ten (10) nurseries they have contacted in an effort to locate these species, and the list shall be submitted to the Engineer. All nurseries supplying material shall be required to have a registration certificate from the Department of Agriculture and Markets, Division of Plant Industry, New York, or any other state where plant material is obtained, certifying that plant material is apparently free of injurious insects and diseases.

PM-6. CHEMICAL AND PHYSICAL REQUIREMENTS

(A) Plant material shall be as shown on the Tree Planting Schedule as shown on the Contract Drawings. Where applicable, the Contractor shall provide freshly dug plant material. Cold storage or previously dug plants will not be acceptable. The Contractor shall not prune prior to delivery unless otherwise directed and approved by the Engineer or representative. Plants that are pruned without authorization from the Engineer will be rejected. Plant material shall be delivered to the site in such a manner as to not damage the bark, break branches, or destroy the natural shape of the plant. To protect plant material from desiccation, the Contractor shall when deemed appropriate and only on appropriate plant material, apply an approved anti-desiccant 48 hours prior to transporting and fully cover plant material during transportation to the planting site. Plant material shall not be dropped or in any way be mishandled during unloading. Plants damaged during transportation to the site will be immediately rejected. Unacceptable conditions shall include, but not be limited to, the following: loose burlap or rope, soil spilling from B&B or containers, plants that move independently of root ball or container, soil missing from B&B or containers, and irregularly shaped root balls.

(B) ASIAN LONGHORNED BEETLE QUARANTINE ZONE REGULATIONS: Due to current Federal, State and NYC DPR policy, the following host species may not be planted in the quarantine zone. Host species are as follows: Acer-Maple, Aesculus-Horsechestnut/Buckeye, Salix-Willow, Betula-Birch, Populus-Poplar, Ulmus-Elm, Albiza-Mimosa/Silk Tree, Celtis-Hackberry, Fraxinus-Ash, Platanus-London Planetree, Sycamore, Sorbus-Mountain Ash.

In addition, Nurseries located within the quarantine zone shall comply with State and Federal Law and all Contractors and/or Subcontractors shall be Certified by the New York State Department of Agriculture and Markets to perform work within the Quarantine Zone. For additional information, including the extent of the quarantine zone, see the NYC Department of Transportation, Standard Highway Specifications, General Conditions, Subsection 1.06.23.(R), "PLANT PEST CONTROL REQUIREMENTS".

(C) Dimensions

A plant shall be dimensioned as it stands in its natural position. Trees up to and including four (4) inch caliper size shall be measured six (6) inches above ground level. Trees over four (4) inches in caliper size shall be measured twelve (12) inches above ground level. Stock furnished shall be a fair average of the minimum and maximum sizes specified. Larger plants cut back to sizes specified will not be accepted.

Container grown herbaceous plants, groundcover, and vines shall be well rooted in the container size indicated on the Plant Schedule, grown in the container at least one year prior to planting. Bulbs, corms, tubers and rhizomes shall be Top Size, or as indicated on the Plant Schedule. Annual flowering plants shall be vigorous, well rooted, with no indications of disease or stress.

(D) Preparation of Plants

All precautions customary in good trade practice shall be taken in preparing plants for moving. Workmanship that fails to meet the highest standards will be rejected. All plants shall be dug immediately before moving unless otherwise specified. All plants shall be dug to retain as many fibrous roots as possible. Balled and burlapped and balled and platformed plants shall have a solid ball of earth of minimum specified size, securely held in place by burlap and stout rope or twine. Oversized or exceptionally heavy plants are acceptable if the size of the ball or spread of roots is proportionately increased, to the satisfaction of the Engineer. Loose, broken, or manufactured balls will be rejected. Bare root plants shall be puddled immediately after digging by immersing the roots in a hydrogel slurry, so as to completely coat the roots.

(E) Delivery

Plants shall be packed, transported, and handled with utmost care to insure adequate protection against injury. When transported in closed vehicles, plants shall receive adequate ventilation to prevent sweating. When transported in open vehicles, plants shall be protected by tarpaulins or other suitable cover material. All bare root plants shall be adequately protected from drying out and immediately after inspection shall be heeled in moist soil. Balled and burlapped plants shall be set on the ground and the ball covered with soil. Until planted, all material shall be properly maintained and kept adequately moist, to the satisfaction of the Engineer.

(F) Inspection

Inspection may be made before digging if the Engineer directs, but no plant material shall be planted by the Contractor until inspected by the Engineer at the site of the work. Plant material will be rejected if delivered with broken or damaged root balls, or if damaged on site by rough handling. All rejected material shall be immediately removed from the site and replaced with acceptable material at no additional cost. Final inspection shall be made upon completion of the contract.

PM-7. PLANT SCHEDULE**(A) ABBREVIATIONS**

Cal.	Indicates the caliper of the trunk of the tree.
B & B	Indicates tree or shrub to be balled and burlapped.
B.R.	Indicates a tree or shrub to be delivered "bare root".
O.C.	Indicates "on center" or spacing between plants in all directions.
Ht.	Indicates overall height of tree.
Item No.	Indicates specific species of plant material, including a description.

(B) Genus species & Plant description.

TREES: All trees shall be branched 6' from the ground. No tree shall have any limb cuts over 3/4" which have not completely calloused over. Sizes shall be as indicated. All B&B trees shall be dug with firm root balls free of noxious weeds. There should be no excess soil on top of the root ball or around the trunk. Loose, broken, or manufactured balls will be rejected. Well-branched top and fibrous root system essential.

SHRUBS: Sizes shall be as indicated. Rootball or container sizes shall correspond to A.A.N. Standards for the corresponding shrub height. Heavy root system, all shrubs shall be well branched to the ground. Sizes shall be as indicated.

VINES, GROUND COVER, AND HERBACEOUS PLANTS: Container size shall be as indicated on the plans. All plants shall have vigorous root systems and have grown in the container for at least one year prior to planting.

PLUGS: Plugs shall have vigorous root systems.

ANNUALS: Annual flowering plants shall be vigorous, well rooted, with no indications of disease or stress.

BULBS, CORMS, TUBERS AND RHIZOMES: All bulbs, corms, tubers and rhizomes shall be top size, firm, and non-desiccated.

ROSES: Sizes shall be as indicated. Heavy root system, all roses shall be well branched to the ground.

Items are listed by estimated size and/or shared similarities; they include—but shall not be limited to—the genus and species listed beneath each item.

1. **PLANT MAJOR TREES – 2½" – 3" CALIPER**

Acer rubrum, Red Maple: 2½" – 3" cal. B&B with 28" - 32" rootball, branched 6' from the ground. Should have single, straight trunk with leader intact, and symmetrical well branched tops.

Betula nigra, River Birch: 2½" – 3" cal. B&B with 28" - 32" rootball, branched 6' from the ground, spread of top 6'. Should have a single straight trunk.

Carpinus betulus, European Hornbeam: 2½" – 3" cal. B&B with 28" - 32" rootball, branched 6' from the ground, spread of top 5'-6'. Should have single, straight leader.

Celtis occidentalis, Hackberry: 2½" – 3" cal. B&B with 28" - 32" rootball, branched 6' from ground. Should have straight trunk w/symmetrical well branched top, spread of 5'-6'.

Crataegus viridis 'Winter King', 'Winter King' Green Hawthorn: 2½" – 3" cal. B&B with 28" - 32" rootball, branched 6' from the ground, spread of top 6'. Should have a single straight trunk.

Eucommia ulmoides, Hardy Rubber Tree: 2½" – 3" cal. B&B with 28" - 32" rootball, branched 6' from ground. Should have straight trunk with symmetrical and somewhat pyramidal, well branched top.

Ginkgo biloba, Ginkgo: 2½" – 3" cal. B&B with 28" - 32" rootball Branched 6' from ground. Single straight trunk with leader intact, symmetrical well branched tops. Trees with unbalanced tops not acceptable. Spread of top 3'-4'. Staminate form only.

Gleditsia triacanthos var inermis, Honey locust: 2½" – 3" cal. B&B with 28" - 32" rootball branched 6' from ground. Spread of top 4'-5'. Shall have straight trunks and picturesque, well branched tops.

Gymnocladus dioicus, Kentucky Coffeetree: 2½" – 3" cal. B&B with 28" - 32" rootball branched 6' from ground. Single straight trunk with leader intact, symmetrical well branched tops.

Koelreuteria paniculata, Goldenrain Tree: 2½" – 3" cal. B&B with 28" - 32" rootball, branched 6' from ground. Should have single straight trunks with leaders intact, and symmetrical well branched tops.

Liquidambar styraciflua, Sweetgum: 2½" – 3" cal. B&B with 28" - 32" rootball, branched 6' from ground. Should have single straight trunks, leader intact, well branched tops.

Metasequoia glyptostroboides, Dawn Redwood: 2½" – 3" cal. B&B with 28" - 32" rootball, branched 6' from ground. Single straight trunk, pyramidal form and leader intact.

Nyssa sylvatica, Black Gum: 2½" – 3" cal. B&B with 28" - 32" rootball, branched 6' from ground. Should have single straight trunks with leader intact. Well branched tops.

Platanus X acerifolia, London Plane Tree: 2½" – 3" cal. B&B with 28" - 32" rootball, branched 6' from ground. Shall have single straight trunks with leader intact, symmetrical well branched tops. No cut back trees.

Quercus acutissima, Sawtooth Oak: 2½" – 3" cal. B&B with 28" - 32" rootball, branched 6' from ground. Spread of top 4'-5'.

Quercus bicolor, Swamp White Oak: 2½" – 3" cal. B&B with 28" - 32" rootball, branched 6' from ground. Spread of top 4'-5'.

Quercus imbricaria, Shingle Oak: 2½" – 3" cal. B&B with 28" - 32" rootball, branched 6' from ground. Spread of top 4'-5'.

Quercus macrocarpa, Bur Oak: 2½" – 3" cal. B&B with 28" - 32" rootball, branched 6' from ground. Spread of top 4'-5'.

Quercus palustris, Pin Oak: 2½" – 3" cal. B&B with 28" - 32" rootball, branched 6' from ground. Spread of top 4'-5'.

Quercus phellos, Willow Oak: 2½" – 3" cal. B&B with 28" - 32" rootball, branched 6' from ground. Spread of top 4'-5'.

Quercus robur, English Oak: 2½" – 3" cal. B&B with 28" - 32" rootball, branched 6' from ground. Spread of top 4'-5'.

Quercus robur 'Fastigiata', Columnar English Oak: 2½" – 3" cal. B&B with 28" - 32" rootball, fully branched.

Quercus rubra, Red Oak: 2½" – 3" cal. B&B with 28" - 32" rootball, branched 6' - 7' from ground. Spread of top 4'- 5'.

Taxodium distichum, Bald Cypress: 6'-8'. B&B with 26-28" rootball. Should have single straight trunk, vigorous growth with pyramidal form and single, straight leader intact.

Taxodium distichum var. nutans, Pond Cypress: 6'-8'. B&B with 26-28" rootball. Should have single straight trunk, vigorous growth with pyramidal form and single, straight leader intact.

Ulmus spp. ('Jefferson', 'New Harmony', 'Valley Forge', 'Princeton', 'Homestead', 'Pioneer', 'Delaware'), American Elm: 2"-2½" cal. B&B with 26-28" rootball, branched 6' from ground. Straight trunk with leader intact, well branched tops.

Ulmus parvifolia, Lacebark Elm: 2"-2½" cal. B&B with 26-28" rootball, branched 6' from ground, spread of top 5'-6', straight trunk with symmetrical, well branched tops, must be free from bad crotches and other structural faults, shall be free from scale, Dutch Elm disease and all other infestation.

Zelkova serrata, Japanese Zelkova: 2"-2½" cal. B&B with 26-28" rootball, branched 6' from ground, spread of top 4'-5'.

2. PLANT MAJOR TREES: 3 ½" – 4" CALIPER

Acer rubrum, Red Maple: 3 ½" – 4" cal. B&B with 36" – 40" rootball, branched 6' from the ground. Should have single, straight trunk with leader intact, and symmetrical well branched tops.

Betula nigra, River Birch: 3 ½" – 4" cal. B&B with 36" – 40" rootball, branched 6' from the ground, spread of top 6'. Should have a single straight trunk.

Carpinus betulus, European Hornbeam: 3 ½" – 4" cal. B&B with 36" – 40" rootball, branched 6' from the ground, spread of top 5'-6'. Should have single, straight leader.

Celtis occidentalis, Hackberry: 3 ½" – 4" cal. B&B with 36" – 40" rootball, branched 6' from ground. Should have straight trunk w/symmetrical well branched top, spread of 5'-6'.

Crataegus viridis 'Winter King', 'Winter King' Green Hawthorn: 3 ½" – 4" cal. B&B with 36" – 40" rootball, branched 6' from the ground, spread of top 6'. Should have a single straight trunk.

Eucommia ulmoides, Hardy Rubber Tree: 3 ½" – 4" cal. B&B with 36" – 40" rootball, branched 6' from ground. Should have straight trunk with symmetrical and somewhat pyramidal, well branched top.

Ginkgo biloba, Ginkgo: 3 ½" – 4" cal. B&B with 36" – 40" rootball Branched 6' from ground. Single straight trunk with leader intact, symmetrical well branched tops. Trees with unbalanced tops not acceptable. Spread of top 3'-4'. Staminate form only.

Gleditsia triacanthos var inermis, Honeylocust: 3 ½" – 4" cal. B&B with 36" – 40" rootball branched 6' from ground. Spread of top 4'-5'. Shall have straight trunks and picturesque, well branched tops.

Gymnocladus dioicus, Kentucky Coffeetree: 3 ½" – 4" cal. B&B with 36" – 40" rootball branched 6' from ground. Single straight trunk with leader intact, symmetrical well branched tops.

Koelreuteria paniculata, Goldenrain Tree: 3 ½" – 4" cal. B&B with 36" – 40" rootball, branched 6' from ground. Should have single straight trunks with leaders intact, and symmetrical well branched tops.

Liquidambar styraciflua, Sweetgum: 3 ½" – 4" cal. B&B with 36" – 40" rootball, branched 6' from ground. Should have single straight trunks, leader intact, well branched tops.

Metasequoia glyptostroboides, Dawn Redwood: 3 ½" – 4" cal. B&B with 36" – 40" rootball, branched 6' from ground. Single straight trunk, pyramidal form and leader intact.

Nyssa sylvatica, Black Gum: 3 ½" – 4" cal. B&B with 36" – 40" rootball, branched 6' from ground. Should have single straight trunks with leader intact. Well branched tops.

Platanus X acerifolia, London Plane Tree: 3 ½" – 4" cal. B&B with 36" – 40" rootball, branched 6' from ground. Shall have single straight trunks with leader intact, symmetrical well branched tops. No cut back trees.

Quercus acutissima, Sawtooth Oak: 3 ½" – 4" cal. B&B with 36" – 40" rootball, branched 6' from ground. Spread of top 4'-5'.

Quercus bicolor, Swamp White Oak: 3 ½" – 4" cal. B&B with 36" – 40" rootball, branched 6' from ground. Spread of top 4'-5'.

Quercus imbricaria, Shingle Oak: 3 ½" – 4" cal. B&B with 36" – 40" rootball, branched 6' from ground. Spread of top 4'-5'.

Quercus macrocarpa, Bur Oak: 3 ½" – 4" cal. B&B with 36" – 40" rootball, branched 6' from ground. Spread of top 4'-5'.

Quercus palustris, Pin Oak: 3 ½" – 4" cal. B&B with 36" – 40" rootball, branched 6' from ground. Spread of top 4'-5'.

Quercus phellos, Willow Oak: 3 ½" – 4" cal. B&B with 36" – 40" rootball, branched 6' from ground. Spread of top 4'-5'.

Quercus robur, English Oak: 3 ½" – 4" cal. B&B with 36" – 40" rootball, branched 6' from ground. Spread of top 4'-5'.

Quercus robur 'Fastigiata', Columnar English Oak: 3 ½" – 4" cal. B&B with 36" – 40" rootball, fully branched.

Quercus rubra, Red Oak: 3 ½" – 4" cal. B&B with 36" – 40" rootball, branched 6' - 7' from ground. Spread of top 4'- 5'.

Taxodium distichum, Bald Cypress: 8' – 10". B&B with 34"-36" rootball. Should have single straight trunk, vigorous growth with pyramidal form and single, straight leader intact.

Taxodium distichum var. nutans, Pond Cypress: 8' – 10'. B&B with 34"-36" rootball. Should have single straight trunk, vigorous growth with pyramidal form and single, straight leader intact.

Ulmus spp. ('Jefferson', 'New Harmony', 'Valley Forge', 'Princeton', 'Homestead', 'Pioneer', 'Delaware'), American Elm: 3 ½" – 4" cal. B&B with 36" – 40" rootball, branched 6' from ground. Straight trunk with leader intact, well branched tops.

Ulmus parvifolia, Lacebark Elm: 3 ½" – 4" cal. B&B with 36" – 40" rootball, branched 6' from ground, spread of top 5'-6', straight trunk with symmetrical, well branched tops, must be free from bad crotches and other structural faults, shall be free from scale, Dutch Elm disease and all other infestation.

Zelkova serrata, Japanese Zelkova: 3 ½" – 4" cal. B&B with 36" – 40" rootball, branched 6' from ground, spread of top 4'-5'.

3. PLANT FLOWERING AND ORNAMENTAL TREES

Amelanchier arborea, Downy Serviceberry: 8'-10' Ht., B&B, 20" rootball, spread of top 5'-6'.

Amelanchier canadensis, Shadblow: 2"-2½" cal. B&B with 26-28" rootball, branched 6' from the ground, average height 8'-10', spread of top 5'-6'. Should have single, straight leader. Provide multi-stemmed specimens if requested. Multi-stemmed trees shall have a minimum of 4 main stems and be a minimum height of 4'.

Amelanchier x grandiflora 'Autumn Brilliance', 'Robin Hill', Apple Serviceberry: 2"-2½" cal. B&B with 26-28" rootball, branched 6' from the ground, average height 8'-10', spread of top 5'-6'. Should have single, straight leader. Provide multi-stemmed specimens if requested. Multi-stemmed trees shall have a minimum of 4 main stems and be a minimum height of 4'.

Amelanchier laevis 'Snowcloud', Snowcloud Serviceberry: 8'-10' Ht., B&B, 20" rootball, spread of top 5'-6'.

Cercis canadensis, 'Alba' 'Forest Pansy', Eastern Redbud: 2"-2½" cal. B&B with 26-28" rootball, branched 6'-7' from ground, average height 12'-14', spread of 4'-5', well branched. Should have straight trunk with leader intact. No limb cuts over 3/4' which have not completely calloused over. Heavy fibrous root system essential. Supply multi-stemmed if specified. Multi-stemmed shall be a minimum of 6'.

Chionanthus retusus, Chinese Fringetree: 1¾"-2" cal., B&B, 22" rootball, well branched, spread of top 5'.

Chionanthus virginicus, White Fringetree: 5'-6' Ht., B&B, 16"-18" rootball, well branched, spread of top 5'.

Cornus kousa, Korean Dogwood: 8'- 10' Ht., B&B, 20" rootball, well branched, spread of top 5'

Cornus mas, Cornelian Dogwood: 2"-2½" cal. B&B with 26-28" rootball, spread of top 5'-6'. Should have single, straight leader.

Halesia caroliniana/Halesia tetraptera, Carolina Silverbell: 2"-2½" cal. B&B with 26-28" rootball branched 6' from the ground, spread of top 5'-6'. Should have a single straight trunk. Specimen quality.

Hamamelis x intermedia, Hamamelis Intermedia Witchhazel: 4'-4.5' Ht., B&B, 14" rootball, spread of top 4', specimen quality.

Maackia amurensis, Amur Maackia: 2"-2½" cal. B&B with 26-28" rootball, branched 5' from ground. Should have single straight trunks with leaders intact, and symmetrical well branched tops.

Magnolia virginiana, Sweetbay Magnolia: 8'- 10' Ht., B&B, 20" rootball, well branched, spread of top 5'. Provide multi-stemmed specimens if requested. Multi-stemmed trees shall have a minimum of 4 main stems and be a minimum height of 6'.

Malus sargentii, Crabapple: 5-6' Ht., B&B, 18" rootball, heavy plant, well furnished to ground, spread equal to height.

Prunus sargentii, Sargent Cherry: 2"-2½" cal. B&B with 26-28" rootball. Shall have a single straight trunk with symmetrical well branched top.

Prunus serrulata 'Kwanzan', Kwanzan Cherry: 2"-2½" cal. B&B with 26-28" rootball. Shall have a single straight trunk with symmetrical well branched top.

4. MEDIUM DECIDUOUS SHRUBS – CLASS B

Aronia arbutifolia, Red Chokeberry: 24-36" Ht., #3 can., heavy well-branched tops.

Aronia melanocarpa, Black Chokeberry: 24-36" Ht., #3 can., heavy well-branched tops.

Callicarpa spp., Beautyberry: 24-36" Ht., #3 can, heavy well-branched tops.

Clethra alnifolia, Summersweet Clethra: 24-36" Ht., #3 can., heavy well branched tops with at least 8 canes 24" and up.

Cornus sericea, Redtwig Dogwood: 24-36" H, #3 can, heavy, well-branched tops.

Cotoneaster apiculatus, Cranberry Cotoneaster: 18-24" Ht., #3 can. with at least 5 runners. Must be well established in pot.

Cotoneaster horizontalis, Rockspray Cotoneaster: 18-24" Ht., #3 can.

Forsythia x intermedia, Showy Border Forsythia: 18-24" Ht., #3 can., full, well-branched head with at least 4 canes.

Fothergilla gardenii, Dwarf Fothergilla: 18-24" Ht., #3 can, heavy well branched top.

Hamamelis vernalis, Vernal Witchhazel: 24-36" Ht., #3 can, Heavy well-branched top.

Hamamelis virginiana, Witchhazel: 24-36" Ht., #3 can, heavy well branched top.

Hydrangea quercifolia, Oakleaf Hydrangea: 24-36" Ht., #3 can., well-branched top with at least 4 canes 24" and up.

Ilex verticillata, Winterberry: 24-36" Ht., B&B or #3 can., heavy symmetrical top, furnished to the ground, spread of top 15".

Itea virginica, Virginia Sweetpire: 18-24" Ht., #3 can., well-branched top with at least 4 canes.

Lindera benzoin, Spicebush: 24-30" Ht., #3 can, well branched top with at least 4 canes 20" and up.

Myrica pennsylvanica, Northern Bayberry: 24-36" Ht., B&B or #3 can, well-branched, spread of top 18".

Physocarpus opulifolius, Common Ninebark: 2-3 H, #3 can, well branched, must have at least 4 canes, 24" and up; 'Diablo' where specified.

Potentilla fruticosa, Shrubby Cinquefoil: 12-18" Ht., #3 can, spread of top 18", must have at least 4 canes 12" and up.

Rhus aromatica 'Gro-Low', Gro-Low Fragrant Sumac: 18-24" Spread. #3 can, well branched.

Spirea japonica, Japanese Spirea: 18-24" Ht., #3 can., well-branched top with at least 4 canes 18" and up.

Spirea nipponica 'Snowmound', Snowmound Nippon Spirea: 18-24" Ht., #3 can., well-branched top with at least 4 canes 18" and up.

Spirea x bumalda, Bumalda Spirea: 18-24" Ht., #3 can., well-branched top with at least 4 canes 18" and up.

Viburnum dentatum, Arrowwood Viburnum: 24-36" Ht., #3 can, well-branched top with at least 4 canes. Extra dense and heavy.

5. LARGE EVERGREEN SHRUBS – CLASS A

Ilex opaca, American Holly: 5'-6' Ht., B&B, 20", heavy well-branched tops.

6. MEDIUM EVERGREEN SHRUBS – CLASS B

Ilex glabra, Inkberry: 18-24" Ht., #3 can. Heavy symmetrical top with at least 8 canes 18" and up, furnished to the ground, spread of top 18". 'Shamrock' or 'Compacta' when specified.

Ilex crenata, Japanese Holly: 18-24" Ht., #3 can, bushy, heavy rounded top, well furnished to the ground.

Juniperus conferta 'Blue Pacific', 'Blue Pacific' Shore Juniper: 12-18" Ht., #3 can.

Juniperus horizontalis 'Bar Harbor', Bar Harbor Juniper: 12-15" H, #3 can, at least 3 canes 12" and up.

Prunus laurocerasus, Cherry Laurel: 18-24" Ht., #3 can.

7. PERENNIALS #1 can

Ornamental perennials including but not limited to the genus Agastache, Asclepias, Astilbe, Chelone, Echinacea, Eupatorium, Geranium, Hemerocallis, Hibiscus, Iris, Liatris, Liriope, Lobelia, Mondarda, Nepeta, Nipponanthemum, Rudbeckia, Salvia, Sedum, Solidago, Symphyotrichum, Verbena, and Vernonia. #1 can, must be in full leaf, well established in pot.

8. PERENNIALS #2 can

Ornamental perennials including but not limited to the genus Agastache, Asclepias, Astilbe, Chelone, Echinacea, Eupatorium, Geranium, Hemerocallis, Hibiscus, Iris, Liatris, Liriope, Lobelia, Mondarda, Nepeta, Nipponanthemum, Rudbeckia, Salvia, Sedum, Solidago, Symphyotrichum, Verbena, and Vernonia. #2 can, must be in full leaf, well established in pot.

9. PERENNIALS 1 QT

Ornamental perennials including but not limited to the genus Agastache, Asclepias, Astilbe, Chelone, Echinacea, Eupatorium, Geranium, Hemerocallis, Hibiscus, Iris, Liatris, Liriope, Lobelia, Mondarda, Nepeta, Nipponanthemum, Rudbeckia, Salvia, Sedum, Solidago, Symphyotrichum, Verbena, and Vernonia. 1 Qt., must be in full leaf, well established in pot.

10. PERENNIALS 2 QT

Ornamental perennials including but not limited to the genus Agastache, Asclepias, Astilbe, Chelone, Echinacea, Eupatorium, Geranium, Hemerocallis, Hibiscus, Iris, Liatris, Liriope, Lobelia, Mondarda, Nepeta, Nipponanthemum, Rudbeckia, Salvia, Sedum, Solidago, Symphyotrichum, Verbena, and Vernonia. 1 Qt., must be in full leaf, well established in pot.

11. GRASSES #1 can

Grasses: Grasses including but not limited to the genus Acorus, Calamagrostis, Carex, Hakonechloa, Juncus, Panicum, Pennisetum, Sorghastrum and Schizachyrium. #1 can, vigorous specimens typical of the species specified in the plans.

12. GRASSES #2 can

Grasses: Grasses including but not limited to the genus Acorus, Calamagrostis, Carex, Hakonechloa, Juncus, Panicum, Pennisetum, Sorghastrum and Schizachyrium. #2 can, vigorous specimens typical of the species specified in the plans.

13. GRASSES #3 can

Grasses: Grasses including but not limited to the genus Acorus, Calamagrostis, Carex, Hakonechloa, Juncus, Panicum, Pennisetum, Sorghastrum and Schizachyrium. #2 can, vigorous specimens typical of the species specified in the plans.

14. ROSES (#2 / #3 can)

Rosa 'Meidiland': 18" to 24", #3 can (hardy varieties, which mature into shrub form or groundcovers).

Rosa 'Carefree Delight' & 'Carefree Wonder': 18" to 24" H, #3 can (matures to tight compact alternative to Rosa Rugosa).

Rosa spp. Flower Carpet Roses ®: 18" to 24" H, 2 Gal., must have at least 3 canes, 15" and up.

Rosa palustris, Swamp Rose: 18" to 24" H, #3 can, must have at least 3 canes 15" and up.

Rosa rugosa, Rugosa Rose: 18" to 24" H, #3 can, must have at least 3 canes 15" and up.

Rosa 'The Fairy,' The Fairy Rose: 18" to 24" H, 2 Gal. Heavy well-rounded top.

15. ROSES #5 can

Rosa 'Knock Out,' Knock Out Rose: 18" to 24", 2 Gal., must have at least 3 canes 15" and up.

16. GROUNDCOVERS #1 can

Arctostaphylos uva ursi, #1 can: vigorous, well-established in pot

Ajuga reptans, #1 can: vigorous, well-established

Campsis radicans, #1 can; vigorous, well-established in pot.

Convollaria majalis, #1 can: 'Rosea' when specified

Euonymus coloratus, # 1 can; vigorous, well-established in pot.

Hedera helix, English Ivy: #1 can; vigorous specimens, well-established in pot.

Iberis sempervirens, #1 can, well-established

Liriope muscari, Liriope: #1 can; must have well-rounded leafing pattern. 'Big Blue,' 'Variegata'

Liriope spicata, Liriope: #1 can; vigorous specimens, well-established in pot.

Lysimachia nummularia, #1 can, well-established

Pachysandra terminalis, Japanese Pachysandra: #1 can; vigorous specimens, well established in pot.

Sedum brevifolium: #1 can, vigorous, well-established

Sedum spurium 'John Creech': quart; vigorous, well-established.

Thymus praecox, #1 can: vigorous, well-established

Vinca minor, #1 can: vigorous, well-established

PM-8. DESCRIPTION

The Contractor shall plant the material specified in the following plant schedule in the planting beds in accordance with the plans and specifications, or as directed by the Engineer. The Contractor shall be liable for any damages to property caused by planting operations, and all areas and construction disturbed shall be restored to their original conditions, to the satisfaction of the Engineer.

PM-9. MATERIALS

(A) Plant names, size, and grading standards shall conform to those prepared by the American Association of Nurserymen Horticultural Standards, 1998 Edition, unless otherwise specified. No substitution shall be permitted, except with the written permission of the Engineer in consultation with the NYC Department of Parks and Recreation Green Infrastructure Liaison.

Burlap: Burlap shall be a natural fabric. No nylon burlap shall be permitted.

Cord or Rope: Cord or rope shall be sisal twine. Nylon rope shall not be permitted.

PM-10. CONSTRUCTION METHODS

(A) Unless otherwise directed by the Engineer in consultation with the NYC Department of Parks and Recreation Green Infrastructure Liaison, plant material may be transplanted from March 1st to April 1st and from October 15th to December 15th; deciduous material shall be planted from March 1st to May 1st or to when weather permits and from October 15th to December 15th or to when weather permits. Evergreen material shall be planted from April 1st to May 15th and from September 1st to October 15th or as weather permits. In case the planting season is missed for any reason, the Contractor shall cover the soil with mulch. Mulch shall comply with the requirements of I-Pages Section GI-2.14.

(B) Planting shall be performed by an approved Contractor. No planting shall be done except in the presence of the Engineer or the Engineer's representative. All material shall be inspected by the Engineer as it is removed from the truck, prior to placing in an approved storage area or the designated planting site. All rejected material shall be removed from the site and replaced with acceptable material at no additional cost to the City.

Bare root material shall be adequately protected from drying out and immediately heeled in after inspection. The bundles of heeled-in plants shall be set upright on the ground, covered with mulch, and kept adequately moist until the time of installation. Until the time of planting, all plant material shall be stored in an approved location, securely fenced and maintained, to the satisfaction of the Engineer, at no additional cost to the City. All plants not planted immediately shall be watered as necessary to maintain optimal health until planting.

For each plant, dig a hole to correct depth for the placement of the plant material. Place balled and burlapped material in the prepared planting pit by lifting, and carry it by the rootball. Set the tree or shrub straight and in the center of the pit, with the most desirable side facing toward the predominant view. All material shall set, after settlement, at the same level at which they have grown in the nursery. Care shall be exercised in setting the plants plumb. All ropes, stones, etc. shall be removed from the pit before backfilling. Soil for backfilling shall be loose and friable and not frozen or solid.

Cut and remove rope or wire from the top fifty (50%) percent of the rootball and pull the burlap back to the edge of the ball. Remove as much woven product and twine as possible. All plastic or synthetic fabric must be removed from the ball at the time of planting. Any wire basket enclosed root ball will need to have at least two-thirds (2/3) of the wire basket cut away from the sides and top of the ball and removed. Remaining lateral wires must be cut to prevent future root interference. Wire must not be galvanized or aluminum wire.

Balled and burlapped plants shall be handled so that the ball will not be loosened. After the soil has been thoroughly firmed under and around the ball, the burlap shall be cut away from the upper half of the ball, and the remaining burlap adjusted to prevent the formation of air pockets. Where directed by the Engineer, the burlap shall be entirely removed. Soil shall be firmed at six (6") to eight (8") inch intervals and thoroughly settled with water. Plants with exposed roots shall be placed in the proper position in the center of the pit after the soil in the bottom of the pit has been firmed. Roots shall be arranged in their natural position and existing soil worked in among them, firmed at intervals and thoroughly settled with water. Care shall be taken to avoid bruising or breaking the roots when tamping the soil. All large and fleshy roots which are bruised or broken shall be pruned, making a clean cut before planting.

Container plants shall be carefully removed from the containers or flats immediately prior to planting and set to the same depths as they were grown in the nursery bed or container, to the correct spacing indicated on the plans. Roots shall be arranged in their natural position and Engineered Soil worked in among them, taking care to avoid bruising or damaging the roots. No later than one (1) hour after planting, all plants shall be thoroughly settled with water.

(C) Mycorrhizal Fungi Inoculant Shall be applied by means of a three ounce (3 oz.) premeasured dry formulation packet, such as Mycor Tree Saver Transplant®, as manufactured by Plant Health Care, Inc., Pittsburgh, Pa., Rhizanova Tree Transplant, as manufactured by Becker Underwood, Inc., or approved equal. Packets shall contain, as a minimum: one thousand (1000) live spores of Vesicular-Arbuscular fungi, including: *Entrophosphora columbiana*, *Glomus clarum*, *Glomus etunicatum*, and *Glomus sp.*; seventeen million five hundred thousand (17,500,000) live spores of Ectomycorrhizal fungi (*Pisolithus tinctorius*); Biostimulant ingredients including *Yucca schidigera* extract; soluble sea kelp extract derived from *Ascophylum nodosum*; humic acids; and acrylamide copolymer gel as a water absorbent medium. Mycorrhizal fungi inoculant shall be added to the top six to eight inches (6-8") of backfill soil in each planting pit and thoroughly mixed to distribute the inoculant. The material shall be applied according to the following chart:

<u>Size of rootball or container</u>	<u>Ounces per plant</u>
1 gallon	1
2 gal.	2
#3 can.	3
5 gal.	3
7 gal.	3
10 gal.	3
15 gal.	3
20" B&B	6
24" B&B	9
30" B&B	9
36" B&B	12
12" B&B	12

(D) Fertilizer Tablets: Shall be Healthy Start Macro Tablets®, as manufactured by Plant Health Care, Inc., Old Westbury, N.Y., or approved equal. The tablets shall have a nutrient analysis of 12-8-8 and contain a minimum twelve percent (12%) humic acid by weight, as well as biostimulants derived from sea kelp, amino acids, and a wetting agent derived from *Yucca schidigera*. Tablets shall contain a minimum 695,000 each of the following beneficial bacteria: nitrogen fixing, phosphorus solubilizing, and growth promoting. Twenty one gram (21 gm.) twenty four month (24 mo.) release tablets shall be added to the top four inches (4") of backfilled soil in the rates indicated on the following chart:

<u>Size of rootball or container</u>	<u>Tablets per plant</u>
1 gallon	1
2 gal.	2
#3 can.	2
5 gal.	3
7 gal.	3
10 gal.	4
15 gal.	5
20-24" B&B	5
30-36" B&B	6
42-48" B&B	7

(E) The Contractor shall cultivate and rake over finished planting areas and shall leave the site in an orderly condition. On level ground or slight slopes, a shallow basin a little larger than the diameter of the plant pit shall be left around each plant, as shown on the plans, or as directed by the Engineer. On steep slopes, the soil on the lower side of the plant shall be graded in such a manner that it will catch and hold water, as shown on the plans, or as directed by the Engineer.

Upon completion of planting, all debris and waste material resulting from the planting operation shall be removed from the project area, and the affected area raked and cleaned as necessary.

All work done in preparing shallow basins or grading of plant pits on steep slopes and regrading and reseeding of plant saucers shall be deemed included in the unit price per plant. All berms raised for shallow basins in level or gently sloping grass areas shall be removed at the end of the guarantee period. This Engineered Soil shall be cast even over the surrounding grass areas and grass seed sown over the removed berms.

(F) Only crossing, broken or badly bruised branches shall be removed. These shall be pruned with a clean cut. All pruning shall be done with sharp pruning tools in accordance with instructions of the Engineer and the attached pruning diagram. At the time of planting, pruning cuts shall be made at the base of the branch at such a point and angle that neither the branch collar nor the bark of the stem is damaged, and that no branch stub extends from the collar. Crowns of young trees shall not be cut back to compensate for root loss. No leaders shall be cut.

(G) The Contractor shall establish a neat edge where planting areas meet grass areas, as shown on the plan or as directed by the Engineer. Edging shall be done by competent mechanics in a workmanlike manner with a spade or edging tool immediately after all planting is completed.

Particular care shall be exercised in edging to establish good flowing curves as shown on the plan or as directed by the Engineer. Edging shall be maintained by the Contractor until final acceptance of the contract.

(H) All staking shall be done during planting operation and shall be maintained throughout the first year of the guarantee period.

Stakes shall be of white cedar with bark attached and shall show no sign of cracking or decay. They shall have a maximum allowable deflection of ten percent (10%). All trees shall be supported by two (2) stakes, they shall be eight (8') feet long; the diameter at the middle shall be not less than (2") inches or more than two and three quarters (2-3/4") inches and the diameter at the butt shall not exceed three (3") inches. Stakes shall be placed a minimum distance of one (1) foot away from the trunk of the tree, taking care to stay clear of the roots, driven thirty (30) inches into the ground, and shall be fastened to the tree with a suitable length of 3/4" wide, flat, woven polypropylene material as manufactured by DeepRoot®, San Francisco, CA or approved equal that is knotted and nailed to the stakes with one (1) inch galvanized roofing nails as directed by the Engineer.

Unless otherwise directed, trees shall be staked as shown on the plans and in accordance with these specifications. Stakes shall be set parallel to curbs. Trees shall stand plumb after staking. Stakes, and woven polypropylene material, shall be removed at the end of the first year of the two year guarantee period, unless directed otherwise by the Engineer. At the time the stakes are removed any holes left by the stake shall be filled with top soil at no additional cost to the city.

(I) At the time of planting, the entire planting bed shall be saturated to a depth of one (1) foot with twenty (20) gallons being distributed to each tree. Water shall be free from oil, have a pH not less than 6.0 or greater than 8.0 and shall be free from impurities injurious to vegetation. Unless otherwise directed, water may be drawn from mains owned by or supplying water to the City of New York.

Watering shall also take place throughout the guarantee period, as per Section GI-5.09 at approximately two week intervals from May 1 to October 31. Not less than once a week if it has not rained during that period. The Engineer may order less watering based on weather conditions, resulting soil water content or other factors. If drought conditions warrant, the Engineer may order more frequent watering than scheduled or during non-scheduled periods. A watering schedule shall be submitted to the Engineer each week.

Water shall not be applied in a manner which damages plants, plant saucers, stakes or adjacent areas. Each plant saucer shall be carefully filled with water in a manner which does not erode the soil or the plant saucer. Watering shall not cause uprooting or exposure of plant's roots to the air. Damages resulting from these operations shall be immediately repaired at the Contractor's expense.

Where water is supplied from City hydrants, the Contractor shall obtain a free hydrant permit from the NYC Department of Environmental Protection. Permits are issued for a 30-day period, and the Contractor is responsible for keeping the permits current. The permits are available from each borough office. To obtain a permit, the Contractor should bring a copy of their contract, indicating exemption from the permit fee, with a general description of the hydrant location (s) they propose to access.

During dry conditions as defined by the Engineer, the Contractor will add to water a wetting agent product that is meant to aerate soil and allow for more water to penetrate such as Yuccah® Wetting Agent, or DIEHARD™ Soluble Yucca Extract as manufactured by Plant Health Care, or Horticultural Alliance, Inc., or an approved equal. An anti-desiccant to help prevent loss of water through transpiration shall also be used when directed by the Engineer. The anti-desiccant product, approved by the Engineer, must be mixed into water at appropriate ratios (Contractor must follow product instructions).

PM-11. LANDSCAPE GUARANTEE AND REPLACEMENT

(A) The Contractor shall maintain all trees within the limits of this contract in accordance with the plans, specifications and directions of the Engineer until two (2) years after the final acceptance of the whole work of this contract.

(B) All planting areas shall be cultivated and weeded with hoes or other approved tools within the period from May 15th to October 31st. Such cultivating and weeding shall be repeated at least every three (3) weeks. Prior to the installation of plant material, the Contractor shall submit a weeding schedule and plan to be approved by the Engineer. The plan shall include proposed methods of cultivating and weeding indicating all proposed weeding tools. Weed whackers may not be used.

Weeds shall be removed with the root. Under no conditions shall weeds be allowed to attain more than six (6) inches of growth. No separate payment will be made for watering, weeding or any other maintenance outlined in this section throughout the duration of the maintenance period and such work will be deemed included in the bid for Plant Material.

(C) All landscaping work shall have upon planting a guarantee period as mentioned in the Schedule "A" of this project. Contractor shall request in writing an inspection of all landscaping work when completed to begin the maintenance and guarantee period.

Maintenance shall include weeding, cultivating, edging, control of insects, fungus and other diseases by means of spraying with an approved insecticide or fungicide, pruning, adjustment and repair of stakes, and woven polypropylene material, repair of minor washouts, soil replacement, mulching and other horticultural operations necessary for the proper growth of all trees, and for keeping the entire area within the contract limits neat in appearance.

(D) Plant material found to be unsatisfactory or in poor condition at the inspection shall be removed and replaced at the appropriate planting season for that type of plant material. No payment will be made for plant material found to be unacceptable during this inspection.

(E) The Contractor shall submit, in writing, any conditions or species which he feels may be questionable prior to ordering said plants. If he is agreeable, the Engineer will substitute recommended species or address the conditions deemed unsuitable. However, upon ordering a plant and installing it, the Contractor accepts the responsibility for guaranteeing the plant's survival. There shall be no exception.

(F) During the guarantee period (as specified in Schedule A), the Contractor shall replace, in accordance with the contract plans and specifications, any planted tree, shrub, perennial or grass that is dead or, in the opinion of the Engineer, is in an unhealthy or unsightly condition, and/or has lost its natural shape due to dead branches, excessive pruning, inadequate or improper maintenance, or other causes including vandalism, prior to final acceptance, in the next planting season. There shall be a guarantee on shrubs, groundcover plants, perennials and grasses after planting for the remaining period of the project. When instructed by the Engineer, the Contractor shall replace trees, shrubs, perennials or grasses that have died after final acceptance in the next appropriate planting season even when the next planting season falls outside the remaining period of the project. Trees, shrubs, perennials or grasses that die within the guarantee period shall be replaced as many times as necessary so that there is a live tree, shrub, perennial or grass at each location at the end of the guarantee period (which is the remaining period of the project). The cost of replacement(s) shall be included in the unit price bid for the various furnished items of the contract.

Where vandalism or related causes are agreed upon by the Engineer as the cause for tree, shrub, perennial or grasses replacement, the Contractor shall be responsible for replacement

for one time during the guarantee period after final acceptance. Where dead shrubs, groundcover plants, perennials or grasses have been identified, whether due to natural causes or vandalism, the Contractor shall remove the dead material, including stakes, and wire **within three (3) weeks of notification**. The Contractor shall add Engineered Soil, grass seed or appropriate paving material at the direction of the Engineer to the pit to eliminate potential tripping hazards at the time of removal.

Failure to replace trees, shrubs, perennials or grasses in the next appropriate planting season will result in the assessment of liquidated damages in the amount of two hundred (200) dollars per tree and eighty (80) dollars per shrub and (20) per perennial or grass. The assessment of said liquidated damages shall not absolve the Contractor of its responsibility to replace the plant material.

(G) Unless a written waiver of this clause is issued, under the terms of the guarantee, replacement plants shall be chosen only by the Engineer.

PM-12. MEASUREMENT AND PAYMENT

Payment for this work shall be deemed to be included in the unit price bid for item No. ROWB-04.

**SECTION PK- 12D
WATER TAP, 2" DIAMETER**

PK-12D.1. DESCRIPTION. Under this section, the Contractor shall obtain permits from the New York City Department of Environmental Protection, and install water tap(s) of the size(s) specified at existing New York City water mains where shown on the Contract Drawings.

PK-12D.2. PERMIT. The Contractor shall employ a licensed Certified Master Plumber to obtain a permit from the New York City Department of Environmental Protection, Bureau of Water Supply and Wastewater Collection, Tapping Division, hereinafter referred to as New York City Department of Environmental Protection (NYCDEP)

PK-12D.3. MATERIALS AND EXECUTION. The Contractor shall notify the Engineer and the D.E.P. three (3) days prior to intended date of work. All sawcutting, excavation, installation of water tap, and restoration of street pavement (where applicable) shall be performed in accordance with NYCDEP and New York City Department of Transportation (NYCDOT) requirements.

All materials necessary for the installation of the tap(s) will be furnished by the NYCDEP and shall be paid for by the Contractor.

PK-12D.4. MEASUREMENT. The quantity to be measured for payment shall be the number of Water Taps installed to the satisfaction of the Engineer.

PK-12D.5. PRICE TO COVER. The contract price bid per each Water Tap shall cover the cost of all labor, materials, equipment, insurance, and necessary incidentals, including, but not limited to, the cost of permits and the amounts paid to the NYCDEP necessary to complete the work in accordance with the Contract Drawings, the specifications and directions of the Engineer.

The cost for Excavation, Sawcutting, and Restoration of Street Pavement (where applicable) will be paid separately under the appropriately scheduled items.

Payment will be made under:

Item No.	Description	Pay Unit
PK-12 D	WATER TAP, 2" DIAMETER	EACH

SECTION PK-13
TYPE K COPPER TUBING

PK-13.1. DESCRIPTION. Under this section, the Contractor shall furnish, install and connect the water service pipe of the size shown in accordance with the Contract Drawings, the specifications and directions of the Engineer.

PK-13.2. MATERIALS.

(A) PIPE

The water service pipe shall be rigid hard temper type 'K' copper tubing in straight lengths meeting the specification for American Society for Testing and Materials (ASTM) designation No. B 88.

(B) FITTINGS

Fittings shall be approved wrought copper and bronze solder - joint pressure fittings American National Standards Institute (ANSI B 16.22), Di-Electric fittings as required.

(C) JOINTS

Joints shall be made by soldering, using 95-5 tin antimony solder. From the curb valve to the water tap, joints shall be of the "flared" type.

(D) INSULATION

- 1) Insulation shall be 1" thick cellular glass insulation complying with ASTM C 552, as manufactured by Pittsburgh Corning Corporation, FOAMGLAS insulation; or approved equivalent.
- 2) Jacketing shall be flexible waterproof membrane complying with ASTM E 96 for 0.002 perm inch, as manufactured by Pittsburgh Corning Corporation, ITTWRAP jacketing; or approved equivalent.

PK-13.3. METHODS.

(A) INSTALLATION

- 1) The pipe shall be laid true to line and grade with a cover as indicated on the Contract Drawings or as directed by the Engineer.
- 2) Where cover is less than four (4) feet, pipe shall be insulated per the approved manufacturer's recommendations.
- 3) When the foundation is good firm earth, the earth shall be pared or molded to give a full support and if necessary a layer of fine sand or other suitable material should be placed. The same means of securing firm foundation shall be adopted in case the excavation has been made deeper than necessary, in which case the Contractor shall furnish the gravel at his own expense.

- 4) Where the bottom of the trench is in rock, fresh fill, soil of low bearing power or other situations where special foundations are required, the Contractor shall provide such foundation in accordance with the written order of the Engineer. The work shall be paid for at the unit prices bid for the materials used in the work.

(B) TESTING

- 1) The Contractor shall not backfill over any pipe until ordered by the Engineer.
- 2) The pipe system shall be tight and show no leaks when filled with water, sealed and subjected to an internal hydrostatic pressure of 100 psi for thirty minutes.
- 3) Temporary caps shall be placed where required to permit making the tests where valves are not available.
- 4) The tests shall be made in the presence of the Engineer or his representative.

PK-13.4. MEASUREMENT. The quantity of Type K Copper Tubing to be paid for under this item shall be the number of linear feet (laying length) of each size tubing incorporated in the work to the satisfaction of the Engineer, measured along the centerline of the tubing.

PK-13.5. PRICE TO COVER. The contract price per linear foot for each size Type K Copper Tubing shall include the cost of all labor, materials, equipment, insurance, and incidental expenses necessary to complete the work including, but not limited to, excavation and backfilling to grade, furnishing and installing tubing, fittings, insulation where applicable, and fine gravel; all in accordance with the Contract Drawings, the specifications and the directions of the Engineer.

The cost for Water Tap will be paid separately under Item PK-12D.

Payment will be made under:

Item No.	Item	Pay Unit
PK-13D	TYPE K COPPER TUBING, 1" DIAMETER	L.F.
PK-13F	TYPE K COPPER TUBING, 2" DIAMETER	L.F.

SECTION PK-17
CAST IRON VALVE BOX, 5-1/4" DIAMETER

PK-17.1. WORK: Under this Item, the Contractor shall furnish and install CAST IRON VALVE BOXES, 5-1/4" DIAMETER, in accordance with the plans, specifications, and directions of the Engineer.

PK-17.2. MATERIALS: Box: 5-1/4" diameter valve boxes shall be Bingham & Taylor Fig. No. 4908 with a Fig No. 4904-L locking cover, or approved equal. The cover shall have the designation "WATER" cast thereon. The boxes shall extend within the limits called for on the plans.

Cast Iron Valve box furnished by the following suppliers, or approved equivalent, are acceptable for use in this contract:

Bingham & Taylor
PO Box 939
Culpeper, VA 22701
Ph: (540) 825-8334
<http://www.binghamandtaylor.com/>

Border States
1734 A Airpark Drive
Grand Haven MI 49417-8943
Ph:(616) 842-2382
<https://www.borderstates.com/>

Tripac
475 Klug Circle
Corona California 92880
Ph:(951) 280-4488
<http://www.tripaconline.com/>

Setting: The valve boxes shall be set plumb, as shown on the plans, on a footing of brick laid in cement mortar, supported on a foundation of broken stone.

Brick: The brick shall be made from clay or shale, well burned, of a quality approved by the Engineer. The mortar shall be composed of one part Portland Cement and two parts sand.

Broken Stone: The broken stone shall be clean broken traprock, or other approved stone, all of which shall pass a one-inch square opening screen and retained on a 5/8 inch square opening screen.

PK-17.3. SHOP DRAWINGS: The Contractor shall submit Shop Drawings when required, for Engineer's approval.

PK-17.4. MEASUREMENT: The quantity of CAST IRON VALVE BOXES, 5-1/4" DLA. to be paid for under this item shall be the number of cast iron boxes installed in the work to the satisfaction of the Engineer.

PK-17.5. PRICE TO COVER: The price bid shall be a unit price per EACH Cast Iron Valve Box, 5-1/4" Dia. and shall include the cost of all labor, materials, equipment, insurance, and incidentals necessary to complete the work of furnishing and installing Cast Iron Valve Boxes including, but not limited to, all excavation and backfill to grade, and furnishing and installing brick and broken stone setting bed; all in accordance with the plans and specifications, to the satisfaction of the Engineer.

Payment with be made under:

Item No.	Item	Pay Unit
PK-17	CAST IRON VALVE BOX, 5-1/4" DIAMETER	EACH

**SECTION PK-143
RPZ & WATER METER WITH REMOTE & STRUCTURE - 2" DIA.**

PK-143.1.INTENT.

Under this section the Contractor shall provide all labor, materials and equipment necessary or required to furnish and install a complete Reduced Pressure Zone (RPZ), Water Meter w/ Remote system including but not limited to:

- (a) RPZ device is also known as a Backflow Preventer;
- (b) Water Meter W/ Remote Reader shall include Water Meter, Water Meter Strainer and Automatic Reading & Billing System (also known as Remote Reading Device);
- (c) All piping, fittings, valves, test tee, and test tee valve, if required and other incidentals necessary to complete plumbing work and connection to water service and water feed lines in accordance with the plans, specifications, and directions of the Engineer;
- (d) Provide a vandal resistant meter pit and valve boxes;
- (e) RPZ enclosure;
- (f) Provide labor for winterizing the system for the first winter after the system is operational and accepted by the City.

In addition, the Contractor shall furnish extra material to the New York City Department of Parks and Recreation (NYCDPR) Borough Maintenance and Operations (M&O), as specified in this Subsection PK-143.5., below.

PK-143.2 SUBMITTALS

Shall be submitted in accordance with the requirements of the **General Conditions, Section 1.06**, of the Standard Highway Specifications.

(A) SHOP DRAWINGS

The Contractor shall submit Shop Drawings, in accordance with the requirements of the **General Conditions, Section 1.06.13**, of the New York City Department of Transportation (NYCDOT) Standard Highway Specifications. A shop drawing is required showing installation of the complete RPZ assembly, water meter, piping, pipe supports, and the precast concrete structures.

(B) CATALOG CUTS

The Contractor shall submit Catalog Cuts of the RPZ, water meter, meter reading system, control valve, and all connected piping for approval prior to installation.

(C) CERTIFICATIONS:

The Contractor shall be responsible for obtaining all certifications necessary to comply with the New York City Bureau of Water Supply & Wastewater Collection, Cross Connection Control Unit & the New York State Department of Health (NYSDOH) regulations for RPZ's (after installation), including Certification by Backflow Prevention Device Tester; Certification of Master Plumber responsible for the RPZ Installation, and a Professional Engineer's or Registered Architect's Certification that the installation is in accordance with the approved Plans. The Contractor shall prepare and submit copies of NYSDOH Form Gen. 215B to the New York State Department of Health & New York City Cross Connection Control Unit of the Bureau of Water Supply & Wastewater Collection. New York City Department of Design and Construction (NYCDDC) shall receive copies in triplicate of all such submittals. In summation, the Contractor shall be held completely responsible to ensure that all Work is in compliance with NYSDOH Form Gen. 215B.

PK-143.3 MATERIALS.

All materials shall be high quality, industry standard and capable of meeting the performance requirements stated herein. All "or approved equivalent" proposals will be reviewed by the Engineer, in consultation with the City's Landscape Architect, for acceptability. Submittal of "or approved equivalent" specifications does not guarantee acceptance of the product. All product acceptance will be made in writing.

All materials throughout the system shall be new and in perfect condition, made from corrosion-resistant materials when subjected to weather conditions, and supplied from an "authorized" dealer servicing the Metropolitan New York area, in order to assure prompt warranty repair and/or replacement. After award of the Contract, and prior to beginning the work, the Contractor shall submit for approval two copies of the complete list of materials which he proposes to furnish and install. Quantities of materials and equipment need to be included. No deviations from the specifications shall be allowed.

(A) PRECAST CONCRETE STRUCTURES

Enclosure structures for the RPZ and water meter shall be as manufactured by one of the following manufacturers, or approved equivalent:

- A.C. Miller Concrete Products Inc
31 E. Bridge Street,
Spring City, PA 19475
Ph: (610) 948-4600
<http://www.acmiller.com/>
- Kistner Concrete Products Inc
8713 Read Road,
P.O. Box 218,
East Pembroke, NY 14056
Ph :(585) 762-8216
<http://www.kistner.com/>

- Oldcastle Precast
114 Rocky Point Road
Middle Island, NY 11953
Ph:(631) 924-7400
<http://www.oldcastleprecast.com/>
- Or approved equivalent.

(B) CONCRETE

All concrete shall comply with **Section 3.05** of the NYCDOT Standard Highway Specifications, except that compressive strength shall be 5,000 psi at 28 days. All precast concrete shall have a honed finish. The precast concrete shall be well cured, shall be dense and shall have good edges. The cement and aggregate shall be thoroughly mixed in a proportion of one (1) part Portland Cement to not over six (6) or less than four (4) parts of aggregate. The aggregate fine and course shall conform to American Society for Testing and Materials (ASTM) C-33. Aggregate shall be free of all deleterious substances which cause reactivity with oxidized hydrogen sulfides. Aggregate shall be graded to produce a homogeneous concrete mix.

(C) REINFORCEMENT

Steel reinforcement shall comply with **Section 4.14** of the NYCDOT Standard Highway Specifications. Reinforcement shall be placed as shown on the drawings.

(D) LADDER RUNGS

Ladder rungs for each water meter structure shall be constructed of copolymer polypropylene plastic, as manufactured by one of the following manufacturers, or approved equivalent:

- M.A. Industries
303 Dividend Drive
Peachtree City, GA 30269.
Ph : (770) 487-7761
<http://www.maind.com/>
- American Step Company
P.O. Box 137
830 East Broadway
Griffin, GA 30224.
Ph: (770) 467-9844
<http://www.americanstep.com/>
- Parson Environmental ProductsInc
P.O. Box 4474
Reading, PA 19606.
Ph: (610) 582-6060
<http://www.parsonenvironmental.com/>

- or approved equivalent.

(E) RPZ Structure Stainless Steel Enclosure

Stainless steel enclosure shall be fabricated from 14 gauge Type A316L stainless steel. All welds are to be continuously welded and ground smooth.

Each stainless steel enclosure shall have three (3) access doors. Access doors are to be fabricated from 14 gauge Type A316L stainless steel, with all welds continuously welded and ground smooth. Each access door shall have one (1) concealed stainless steel quarter-turn latch, as well as concealed stainless steel hinges that allow for 180 degree swing.

Enclosure and doors sizes, layouts, and details are to be as indicated in contract documents. Enclosure is to be mounted to precast concrete RPZ structure below with concealed stainless steel bolts.

(F) WATER METER STRUCTURE ACCESS DOOR

Access door shall be 36" x 30" size, heavy duty (H20 loading) high security color (brown) anodized aluminum access doors such as JustSet Doors, as manufactured by one of the following manufacturers, or approved equivalent:

- Pennsylvania Insert Corp.
31 E. Bridge Street,
P.O. Box 199 Spring City, PA 19475
Local: 800.220.4857
<http://www.pennsylvaniainsert.com/>
- Babcock-Davis
9300 73rd Avenue
N. Brooklyn Park, MN 55428.
Ph: (763) 488-9200
<http://www.babcockdavis.com/>
- The Bilco Company
P.O. Box 1203
New Haven, CT 06505
Ph:(203) 934-6363
<http://www.bilco.com/>
- Or approved equivalent.

Frame shall have integral drain channel, anchor flanges, and neoprene gasket. A one-and-one half (1-1/2") inch drain coupling shall be located on the corner of the frame. Operation shall be spring assisted for easy operation. A hold open arm shall automatically lock the door in the 90 deg. position. Hinge shall be heavy forged brass with a stainless steel pin. Door shall be

provided with two locks. Lock shall be "Ford" type lifter worm lock with waterworks bronze pentagonal bolt type "LL". All hardware shall be zinc or cadmium plated.

(G) CONSTRUCTION ACCESSORIES

Frames shall be 3/16" x 2" x 2" angle welded with joints ground smooth, after fabrication. Hinges shall be heavy duty and welded to door and frame.

(H) SECURITY BOLTS FOR RPZ STRUCTURE

Security Bolts for RPZ Structure shall be NYCDPR pattern # 83 registration # "116183", Part # H11777155, as manufactured by McGard, Orchard Park, N.Y. 14127, or approved equal. Threads for security bolts shall be at least one-third (1/3) bolt dia. for proper "bite". Vertical doors shall have two(2) security bolts; 7/16 - 20 x .750. Horizontal door for RPZ structure shall have four (4) security bolts; 7/16 - 20 x .750.

(I) SECURITY BOLTS FOR WATER METER STRUCTURE HORIZONTAL DOOR

Security bolts for Water Meter Structure Horizontal Door shall be two (2) pentahead security bolts.

Special Design Criteria for Security Bolts:

1. Bolt must be made from alloy steel, heat treated to 150,000 psi tensile strength.
2. Head of bolt must be selectively hardened to Rc 60 min. to prevent the use of files, hacksaws, and chisels.
3. Bolt is to be made with either a flat or 120o cone seat as required.
4. Bolt will be torqued by means of a recessed curvilinear ("Daisy") groove in the top face of bolt head. A special mating key is required to operate in groove for installation and removal of bolt.
5. Bolts are to be zinc nickel plated in order to meet an ASTM B-368 C.A.S.S. test for 22 hours.
6. Bolt lengths are to be held to +/- .01".
7. Bolt threads are to be class UNC-2A.

WATER PIPING

Shall be hard temper type 'K' copper tubing meeting the requirements of ASTM No. B88-1974. Fittings shall be approved wrought copper and bronze solder-joint pressure fittings (ANSI B 16.22).

(K) GATE VALVES

Shall be Bronze Class 125 'Stockham' B103 or approved equal.

(L) RPZ

The RPZ (Reduced Pressure Principle Backflow Prevention device) shall be C; Febco Model #825YA, Wilkens 975XL, Watts, 009QT, or approved equal. Size shall be as indicated above and on the Contract Drawings. The RPZ shall meet the requirements of American Society of Sanitary Engineers (ASSE) Standard 1013 & the American Water Works Association (AWWA) Standard Code 506-78.

The RPZ shall consist of two independently operating center guided, spring loaded, "Y" pattern check valves and one hydraulically dependent differential relief valve. Mainline valve body and caps including relief valve body and cover shall be bronze. Check valve and relief valve components shall be constructed so they may be serviced without removing the valve body from the line. Shut-off valves and test cocks shall be full ported resilient seated ball valves.

(M) DOUBLE CHECK VALVE FOR WATER SERVICE:

Shall consist of two (2) independently operated, center guided, spring loaded check valves, two (2) threaded inlet and outlet, full port ball valve, shut-off valves and four (4) test cocks. Two (2") inch double check valve (DCV) for water service shall have a flow loss no greater than seven (7) psi at rated flow, similar to Model 850, as manufactured by FEBCO, or approved equal. Alternate Manufacturers: Watts, Ames, or approved equal.

(N) METER OUTLET CONTROL VALVE

The MOCV shall be a Class 125, all bronze gate valve, with non-rising stem and solid disc, with screwed bonnet and threaded ends, such as Stockham Figure B-103, or approved equal. The MOCV shall be capped for testing. For testing the 1" dia. water meter, the first test port on the RPZ may be used.

(O) ELECTRICAL GROUNDING

For continuity of Electrical Grounding (during RPZ Maintenance) the Contractor is to furnish and install one (1) #2 tinned copper ground conductor and copper alloy ground connectors as per O.Z. Gedney, Type ABG for 1" & 1-1/2" dia. and CG for 2" dia. pipe or approval equal. Ground work is to be done prior to any painting or insulation if needed. Alternate Manufacturers: Burndy Type GAR and ILSCO Type GPL3.

(P) WATER METER

Water Meter shall be Neptune T-10, as manufactured by Schlumberger Industries Water Division, or ABB's C-700 as manufactured by ABB Water Meter, Inc., Oak, Florida, or approved equal. All water meters furnished shall conform to the "Standard Specifications for Cold Water Meters", AWWA Standard C700 latest revision. Alternate Manufactures: Sensus SR11-BA and Accustream.

Water meters shall consist of a bronze maincase with the serial number stamped on the maincase. Only displacement meters of the flat nutating disc type will be accepted for improved operation. The size, capacity and meter lengths shall be as specified in AWWA Standard C700, latest revision. The maximum number of disc nutations is not to exceed those specified in AWWA C700 latest revision to minimize premature wear.

(Q) METER MAINCASE

All one (1") inch meter maincase shall be the removable bottom cap type with the bottom cap secured by six (6) bolts. Bottom caps shall be interchangeable, size for size, between frost-protected synthetic polymer or cast iron and non-frost protected (bronze) models. No meters utilizing frost plugs will be accepted. Non-frost protected meters shall have bronze or synthetic polymer bottom caps. The cross section of the bottom shall break clean when subjected to freezing pressure of 600-850 psi. All maincase bolts shall be of 300 series stainless steel to prevent corrosion. Bottom cap bolt lugs shall be enclosed in the maincase and shall not have externally exposed, threaded through holes.

(R) STRAINER

All meters shall contain removable polypropylene plastic strainer screens. The strainer shall be located near the inlet maincase port, before the measuring chamber and control block assembly.

(S) REGISTER

The register shall be of the straight reading sealed magnetic drive type and shall contain six (6) numeral wheels. Registers must be sealed and dry. All direct reading register lenses shall be flat, of high strength, and impact resistant glass to prevent breakage. The dial shall be of the center sweep pointer type and shall contain 100 equally divided graduations at its periphery. The register must contain a low flow indicator with a 1:1 disc nutating ratio to provide leak detection. Register boxes shall be bronze.

All meters must be adaptable to digital encoder register without interruption of the customer's service for the purpose of pit, remote, or central meter reading. The registers shall be secured to the maincase by means of a plastic tamperproof seal pin to allow for in-line service replacement. Seal screws are not acceptable.

Register retainer rings shall have an impact resistant design which absorbs register glass lens impact. All registers shall have the size, model, and date of manufacture stamped on the dial plate.

- 1) Measuring Chamber: The measuring chamber shall be a nutating disc type, the flat nutating disc shall be molded of a non-hydrolyzing hard rubber or synthetic polymer and shall contain a type 316 stainless steel spindle. The nutating disc shall be equipped with a synthetic polymer thrust roller with a stainless steel shaft located within the disc slot. The roller head shall roll on the buttressed track provided by the diaphragm in the measuring chamber. The measuring chamber shall be of a 2-piece snap-joint type. The measuring chamber shall be made of non-hydrolyzing synthetic polymer, shall be smoothly and accurately machined and shall contain a removable molded diaphragm of the same material as that of the chamber.

No screws shall be used to secure the chamber together. The control block shall be the same material as the measuring chamber and be mounted on the chamber top to provide sand ring protection. The control block assembly shall be removable to facilitate repairing. Control block assemblies shall be designed to allow no magnetic slippage which would result in a loss of revenue. The measuring chamber outlet port shall be sealed to the maincase outlet port by means of an "O" Ring gasket to eliminate chamber leak paths.

- 2) Remote Reader: The Remote Reader shall be Neptune Proread ARB System ® as manufactured by Schlumberger Industries Water Division or Remote Meter Read (RMR) System® as manufactured by ABB, or approved equal. The Remote Reader shall be a self-contained encoder register metering system designed to obtain remote simultaneous water meter registration directly from the register odometer. The metering information shall be obtained through a remotely located receptacle using a compatible data capture system. The system shall consist of the Encoder Meter Register and Remotely Mounted Receptacle.
- 3) Encoder Meter Register: Shall be direct mounted with encoded odometer wheels and digital data stream. Batteries or pulses are not allowed.
- 4) Registration: The register shall provide a six digit visual registration at the meter. The unit shall, in a digital format, simultaneously encode the four or six most significant digits of the meter reading for transmission through the remotely located receptacle. (The most significant meter registration digits are defined as those digits on the register number wheels that denote the highest recorded values of water consumption.) A quick indexing mechanism shall be employed which shall prevent ambiguous reading. The register shall have a full test sweep hand or dial divided into gradients of down to 1/100th of the units of registration. Register test rings shall be available for shop testing. The units of registration shall be in U.S. gallons. These units shall be clearly designated on the face of the register. The month and year of manufacture and other identification information shall appear on the face of the register. The register shall employ a leak detection indicator on the dial face. Registers using pulse generation or conversion of pulses to digital output is not permitted. Batteries shall not be required.
- 5) Mechanical Construction: Materials used in the construction of the register shall be compatible with the normal water meter environment and with each other. The unit shall possess a copper bottom and incorporate a rubber O-ring seal. Where indicated, pit set registers must be provided with moisture protection for all internal components when operating under flooded pit conditions. The register and mounting base shall be integral components and should not allow for disassembly. The register shall be attached to the meter case by a bayonet attachment. Fastening screws or nuts shall not be required. A tamperproof plastic seal pin shall be used to secure the register to the main case. No special tools shall be required to remove the register. The register head must swivel 360 degrees without removing the seal pin to facilitate visual reading and ease of wiring. The register shall be removable from the meter without disassembling the meter body and shall permit field installation and/or removal without taking the meter out of service. Provision

shall be made in the register for the use of seal wires to further secure the register. Terminal screws must be accessible on the register for transmission wire connection to the remote receptacle or future connections to a telephone system.

- 6) Electrical Construction: The materials employed for contacts and connectors shall inhibit corrosion and shall suffer minimal effect from environmental conditions to which they are exposed. The number wheels used in the register assembly shall be provided with spring-type bifurcated metal contacts to insure a high probability of information transmission.

Connection shall be made to the register by three screw-type terminals, sonically inserted into the register top. Access to the terminals shall be available to all models of register. A port cover shall be provided to cover the terminals after they have been wired. Digitally formatted data transmitted from the register shall incorporate a check sum character to verify correct information transmission and integrity. Data errors shall be indicated by the reading equipment.

(T) METER READING INFORMATION

The encoder register shall provide up to six digits of information to the reading equipment. A ten digit identification number shall also be provided with each reading. The utility shall have the option to reprogram the internal register identification number an unlimited number of times. The encoder register must have the capability to provide additional custom information to the reader. This information shall be programmed (and reprogrammed at any time) by the utility. Information on programming the register, equipment needed, and encoder meter reading output shall be provided with each proposal.

(U) REMOTE MOUNTED RECEPTACLE

Remote receptacle shall provide a communication link for the transmission of information from the register.

- 1) Mechanical Construction: Where indicated, a remote receptacle must be provided for attachment to a pit meter lid with another unit also designed for attachment by wall mounting. The materials employed shall be corrosion resistant, resist ultraviolet degradation, unaffected by rain or condensation, and compatible with rugged service and long life. The pit mounted receptacle shall be mounted to the water meter access door of the meter concrete structure using two screws to be provided by the utility. The hole size to be drilled in the access door shall not exceed 3/8" each. The pit mounted receptacle shall be provided with a minimum length of ten feet of wire connected and sealed at the receptacle without terminal exposure.
- 2) Electrical Construction: The receptacle construction shall incorporate the function of a cable clamp or strain relief. Design of the unit shall be such that it provides for mechanical and electrical connection between the receptacle and interrogation equipment.
- 3) Cable: The connecting cable shall be of the two-wire conductor type in a sheath which shall be abrasion and moisture resistant. Each conductor shall be color coded.

PK-143.4 METHOD.**(A) GENERAL**

All plumbing work is to be done by a Licensed Plumber. All on-site plumbing work is to be done by a New York City Master Licensed Plumber. The Contractor shall comply with all rules, regulations, and requirements of all regulatory agencies having jurisdiction.

(B) PERMITS AND FEES

The Contractor shall be required to obtain all permits and pay required fees to any governmental agency having jurisdiction over the work. Inspections required by local ordinances during the course of construction shall be arranged as required. On completion of the work, satisfactory evidence shall be furnished to show that all work has been installed in accordance with rules, regulations, ordinances and code requirements.

(C) APPROVAL

The scope of work shall include, but not be limited to, providing a layout drawing of valve boxes, main line piping, water meter pit, RPZ or double check valve, RPZ enclosure, electrical wiring, etc., in addition to the labor to install the above and maintain the system including winterizing valves and fixtures. The Contractor shall further provide all catalogue cuts of materials, equipment, and fixtures for approval of all system components.

(D) CONFERENCE

Prior to any work being performed, a pre-construction meeting will be held by NYCDDC. At that meeting, the Contractor shall provide a construction schedule to the Engineer and discuss any concerns and procedures required for obtaining approval of the materials and work under this Contract. Arrangements for this meeting will be made by NYCDDC.

(E) INSPECTION OF SITE

It is mandatory that the Contractor shall acquaint himself with all site conditions. Should utilities not shown on the plans be found during excavations, Contractor shall promptly notify the Engineer for instructions as to further action. Failure to do so will make Contractor liable for any and all damage thereto arising from his operations subsequent to discovery of such utilities not shown in plans. The Contractor shall also be required to determine the available water pressure and gpm delivery available from the site's water source.

Contractor shall make necessary adjustments in the layout as may be required to connect to the City water mains. All coordination with NYCDEP and other agencies is the responsibility of the Contractor.

(F) SUBSTITUTION

The City reserves the right to substitute, add or delete any material or work as the work progresses. Adjustment to the contract price shall be negotiated if deemed necessary by the City.

(G) REJECTION

The City reserves the right to reject material or work which does not conform to the Contract Documents. Rejected work shall be removed or corrected at the earliest possible time.

(H) EXCAVATION

The Contractor shall excavate to the lines as shown in the drawings. All Temporary sheeting as required shall comply with **Section 4.05, SHEETING AND BRACING** of the NYCDEP Standard Water Main Specifications.

(I) SETTING OF PRECAST CONCRETE WATER METER STRUCTURE:

The precast concrete water meter structure shall be set on a six (6) inch thickness of broken stone with additional stone added inside the twelve inch (12") x twelve inch (12") drain sleeve to the top of the bottom slab. The RPZ Structure shall be set on the Water Meter Structure, as shown on the Contract Drawings.

The Contractor shall install supports for the water meter at the height shown on the Contract Drawings. The meter shall be set so that the dial faces upward and is horizontal. The dial shall not be more than three (3) feet above the floor. The encoder register shall be installed on meter as per manufacturer's instructions. The remote reader receptacle shall be installed in the pit cover as per the manufacturer's directions and recommendations, allowing reading of the meter from above ground level. The Contractor to allow sufficient Water Meter Remote Reader cable slack for manhole cover removal. The RPZ shall be installed as shown on the Contract Drawings and per manufacturer's instructions.

(J) CONNECTIONS

The Contractor shall connect the water piping as shown on the Contract Drawings for complete and satisfactory operating unit to the satisfaction of the Engineer. Connections shall be made to the Water Meter by coupling union or flange union on both inlet and outlet ends of the meter and bored for sealing with holes not less than one-eighth (1/8) of an inch in diameter - solder connections are not permitted. Connections to the RPZ shall be as shown on the Contract Drawings and per manufacturer's instructions.

(K) "AS-BUILT" DRAWINGS

The Contractor shall prepare an "As-Built" drawing. Drawing shall show all items installed during construction, including the RPZ, water Meter, main line or connection pipe, Precast Structures, all valves, remote equipment, and electrical conduit, wiring. The drawing shall also indicate and show all material of sizes, model numbers, manufacturer's name and catalog name and catalog number. These drawings shall be delivered to the Engineer before final acceptance of work. The Contractor shall also provide operating manuals, maintenance instruction documents and a schedule of maintenance activities for all equipment as well as a guide to trouble-shooting system problems. The Contractor shall provide all manufacturers' warranties for installed products and systems in addition to telephone numbers of manufacturers that can supply compatible replacement parts.

(L) SYSTEM FUNCTION AND TESTING

The Contractor shall conduct a pressure test of all plumbing and irrigation connections in the presence of the Engineer.

Upon completion of the work, the Contractor shall clean up the site, remove all unused materials and debris and coordinate with the landscape contractor to complete any outstanding items of work which may include completion of mulch installation.

(M) FINAL ACCEPTANCE

Final acceptance of the work may be obtained from the NYCDDC upon the satisfactory completion of all the work. At the time of final acceptance, the Contractor shall deliver five (5) copies of keys to all locked equipment.

PK-143.5 GUARANTEE AND WARRANTEE

All work, materials and equipment shall be guaranteed for eighteen (18) months, from date of substantial completion of the project, against all defects in material, equipment and workmanship. Guarantee shall also cover repair of damage to any part of the premises resulting from leaks or other defects in material, equipment and workmanship to the satisfaction of the Owner. Repairs, if required, shall be done promptly at no cost to the City.

PK-143.6 MEASUREMENT AND PAYMENTS

The quantities of RPZ & WATER METER WITH REMOTE & STRUCTURE to be measured for payment shall be the number of each type actually installed to the satisfaction of the Engineer.

The price bid shall be a unit price for each type of RPZ & WATER METER WITH REMOTE & STRUCTURE and shall include the cost of all labor, materials, equipment, insurance, and incidentals necessary including, but not limited to, obtaining certifications, installation of all plumbing and electrical work within the structure, providing electric heater with disconnect and vault light with timer and receptacle per the Contract EL Drawings, connections to the water service at the structure, furnishing and installing precast concrete structure and setting bed, reinforcing steel, brick masonry, hangers and supports as per E 260529, pipe insulation, rungs, and access doors; all in accordance with the Contract Drawings, the specifications, and the directions of the Engineer.

Excavation will be paid for under the Item 6.02 AAN. Copper tubing will be paid for separately item PK-13D and PK 13F. No additional payment shall be made for Temporary Sheeting", and "Broken Stone" required for the proper installation.

Payment with be made under:

Item No.	Item	Pay Unit
PK-143	RPZ & WATER METER WITH REMOTE & STRUCTURE - 2" DIA	EACH

SECTION PK-159B
CURB & PROPERTY LINE VALVES- 2" DIAMETER

PK-159B.1. WORK: Under this Item, the Contractor shall furnish and install CURB & PROPERTY LINE VALVES set of the size shown on the plans, in strict accordance with the plans, specifications, and directions of the Engineer. Each set shall consist of one curb valve and one adjacent property line valve.

PK-159B.2. INTENT: The Property Line Valve is intended for use as an on-site, shut-off valve to decrease use of the Curb Valve, and shall be located in an accessible area inside the Park's property line.

PK-159B.3. CURB VALVES: "The curb valves and boxes shall be set in the service pipe in the sidewalk area at the curb or within 2 ft. of the curb. Curb valves shall be of the gate type nonrising stem valve, designed for a minimum of 150 psi wwp." [New York City Building Code: RS16, P107.2(a) 9 and NYCDEP Rules and Regs. Section 138]. Valves shall be Stockham No. B-128; Nibco T136; Milwaukee 1141, Powell 2712, or approved equal. Curb Gate Valves shall have bronze body, bronze bonnet, inside screw, non-rising stem, solid wedge disk, and threaded ends.

PK-159B.4. PROPERTY LINE VALVES: Property Line Valves two inches (2") and under shall be of the cylindrical Plug Type with a closed bottom and a top seal, fully enclosed one-quarter (1/4) turn check, straight through flow way which is resistant to turbulence of the flow stream, one piece cast bronze cylindrical plug and "T" head that aligns with the ports to provide a visual check of valve position, inside screw ends with I.P. threads, as is manufactured by Mueller Co. No. H-10283, or approved equal. Adaptors are required for connecting to copper tubing.

PK-159B.5. OPERATING KEY: An approved operating key of proper size for each valve shall be furnished by the Contractor. However, the Contractor need not furnish more than two (2) keys for each type of valve, regardless of the quantity of valves called for in the Contract. For valves 2" diameter, the operating key shall be Stockham No. 1V437 for Stockham Valves, or the appropriate key for an approved equal valve. For valves 1" to 1-1/2" diameter, handwheel operating nut is to remain.

PK-159B.6. SUBMITTALS: Shall be submitted in accordance with the requirements of the **General Conditions, Section 1.06**, of the Standard Highway Specifications.

PK-159B.7. Shop Drawings: The Contractor shall submit Shop Drawings, in accordance with the requirements of the **General Conditions, Section 1.06.13**, of the Standard Highway Specifications. A shop drawing is required showing installation of the complete RPZ assembly, water meter, piping, pipe supports, and the precast concrete structures.

PK-159B.8. MEASUREMENT: The quantity of CURB & PROPERTY LINE VALVES to be paid for under this Item shall be the number of SETS consisting of both valves of each size, furnished and installed in accordance with the plans, specifications, and directions of the Engineer.

PK-159B.9. PRICE TO COVER: The price bid shall be a unit price for EACH SET of CURB & PROPERTY LINE VALVES (two valves) of each size, and shall include the cost of all labor, materials, equipment, and other incidentals necessary to complete the Work in accordance with the plans and specifications, to the satisfaction of the Engineer.

Valve box extensions shall be paid under the item PK-17. Piping, including the pipe between the curb and property line gate valves shall be paid under Item PK-13F.

Payment with be made under:

Item No.	Item	Pay Unit
PK-159B	CURB & PROPERTY LINE VALVES - 2" DIAMETER	EACH

**SECTION PK-166
PLUG VALVE - 1" DIA.**

PK-166.1. INTENT. Under this Section the Contractor shall furnish and install Plug Valves, of the size specified, in strict accordance with the Contract Drawings, the specifications, and directions of the Engineer.

PK-166.2. MATERIALS.

(A). **PLUG VALVES:** Valves two inches (2") and under shall be of the cylindrical Plug Type with a closed bottom and a top seal, fully enclosed one-quarter (1/4) turn check, straight through flow way which is resistant to turbulation of the flow stream, one piece cast bronze cylindrical plug and "T" head that aligns with the ports to provide a visual check of valve position, inside screw ends with I.P. threads, as is manufactured by Mueller Co. No. H-10283, or approved equivalent. Adaptors are required for connecting to copper tubing.

(B). **OPERATION KEY:** An approved operating key of proper size for each valve shall be furnished by the Contractor, except that the Contractor need not furnish more than two (2) keys for each type of valve, regardless of the quantity of valves called for in the contract. For plug valves two inches (2") and under, the operating key shall be Mueller Co. No. H-10322, or approved equivalent.

PK-166.3. SUBMITTALS.

(A). **SHOP DRAWINGS:** The Contractor shall submit shop drawings when required, in accordance with the requirements of the of the NYCDOT Standard Highway Specifications under Division 1 Contract Requirements, Subsection 1.06.13 (G), Submission of Shop and Working Drawings.

PK-166.4. MEASUREMENT. The quantity of Plug Valves of the size specified to be measured for payment shall be the actually number of Plug valves installed to the satisfaction of the Engineer

PK-166.5. PRICE TO COVER. The price bid shall be unit price per EACH Plug Valve of the size specified, and shall include the cost of all labor, materials, equipment, insurance, and incidentals necessary to complete the work, all in accordance with the Contract Drawings, the specifications, and directions of the Engineer

Payment with be made under:

Item No.	Item	Pay Unit
PK-166	PLUG VALVE - 1" DIA.	EACH

**SECTION PK-168A
PLUG VALVE, 1-1/4" DIA.**

PK-168A.1. DESCRIPTION. Under this section, the Contractor shall furnish and install Plug Valves of the size specified, in strict accordance with the Contract Drawings, the specifications and directions of the Engineer.

PK-168A.2. SUBMITTALS. The Contractor shall submit Shop Drawings in accordance with the requirements of Section 1.06.13 in the NYC Department of Transportation (NYCDOT), Standard Highway Specifications, for Engineer's approval.

PK-168A.3. MATERIALS.

(A) VALVES

Valves two inches (2") and under shall be of the cylindrical Plug Type with a closed bottom and a top seal, fully enclosed one-quarter (1/4) turn check, straight through flow way which is resistant to turbulation of the flow stream, one piece cast bronze cylindrical plug and "T" head that aligns with the ports to provide a visual check of valve position, inside screw ends with I.P. threads, as is manufactured by Mueller Co. No. H-10283, or approved equivalent. Adaptors are required for connecting to copper tubing.

(B) OPERATING KEY

An approved operating key of proper size for each valve shall be furnished by the Contractor. However, the Contractor need not furnish more than two (2) keys for each type of valve, regardless of the quantity of valves called for in the Contract. For plug valves two (2") inches in diameter and under, the operating key shall be Mueller Co. No. H-10322, or approved equivalent.

PK-168A.4. METHODS. All plumbing work shall be done by a New York City Master Licensed Plumber. The Contractor shall comply with all rules, regulations, and requirements of all regulatory agencies having jurisdiction.

PK-168A.5. MEASUREMENT. The quantity of Plug Valves to be paid for under this item shall be the number of valves of each size, furnished and installed in accordance with the Contract Drawings, specifications, and to the satisfaction of the Engineer.

PK-168A.6. PRICE TO COVER. The contract price bid per each Plug Valve shall include the cost of all labor, materials, equipment, insurance, and other incidentals necessary to complete the Work in accordance with the Contract Drawing the specifications, and directions of the Engineer.

Payment with be made under:

Item No.	Item	Pay Unit
PK-168A	PLUG VALVE – 1-1/4" DIA.	EACH

SECTION PK-169 WBF
BOTTLE FILLER W/ HI-LO DRINKING FOUNTAIN BASINS

PK-169 WBF.1. WORK: Under these items, the Contractor shall provide all labor, materials, and equipment necessary or required to furnish and install **BOTTLE FILLER W/HI-LO DRINKING FOUNTAIN BASINS**, including concrete foundation, all internal plumbing, access panels and all external plumbing work and connection to water service and drain within five feet (5") of the tubular body, all in accordance with the plans, specifications, and directions of the Engineer.

PK-169 WBF.2. MATERIALS: Except as otherwise provided for herein, the materials and methods of construction shall meet the requirements corresponding Sections of Divisions II and IV of NYCDOT Standard Highway Specifications, dated August 01, 2015.

Broken Stone Base: Shall consist solely of crushed ledge rock. Stone shall be no. ¾" size and shall be of approved size and as per approved by Engineer.

Geotextile –Drainage: shall be FX-60HS (nonwoven) as manufactured by Carthage Mills, Cincinnati, OH, or 160N (nonwoven) by Mirafi, Inc., Charlotte, NC, or TerraTex N06 (nonwoven) by Hanes Geo Components, Edison, NJ, or approved equal.

Polyethylene vapor retarder: shall be a Reinforced Vapor Retarder 3-ply laminate, combining 2 layers of high-density polyethylene and 1 high strength non-woven cord grid similar to Griffolyn Type-65 as manufactured by Reef Industries, Inc., Houston, Texas.

Concrete pad, Concrete pipe support and Cleanout: (for Bottle filler and Bottle Filler w /Dog Bowl) Concrete shall be 3,200 psi Average Concrete.

Cleanout manhole cover and frame: (for Bottle filler and Bottle Filler w /Dog Bowl) shall be heavy duty cast iron per American Society for Testing and Materials (ASTM) A48, latest revision Class 30 or better. Manhole cover shall be a locking cover with frame, similar to Pattern No. 1000010 as manufactured by Campbell Foundry, Harrison, NJ or approved equal. See Bolt & Key: paragraph.

Sand: surrounding cleanout shall be cushion sand, and shall meet the requirements of Divisions II and IV of NYCDOT Standard Highway Specifications, dated August 01, 2015.

Drain pipe: Shall be cast iron.

Cleanout ferrule: Shall be similar to model # CO-380 cast iron cleanout with gasketed brass countersunk plug, no hub connection as manufactured by Watts Drainage products, Spindale, NC or approved equal.

Expansion joint with sealant: material shall be one of the following:

A) premolded bituminous fiber joint filler (requires a bond breaker and sealant)

B) premolded closed cell expanded polyethylene foam joint filler, MasterSeal 920 by BASF Inc., Shakopee, MN (requires only sealant)

C) or, an approved equal of any of the above.

If bituminous fiber material is used, a bond breaker such as one-half inch (1/2") width polyethylene tape or five-eighths inch (5/8") diameter expanded polyethylene foam backer rod shall be installed as recommended by manufacturer. A bond breaker will not be required for a premolded foam joint or a shredded recycled rubber aggregate joint filler, but sealant is always required. Prepared expansion joints shall be coated with a primer followed by installation of a bond breaker and a self-leveling two-component polyurethane-based elastomeric sealant. The Contractor shall apply Sikaflex 429 primer with Sikaflex - 2C SL sealant, manufactured by Sika Corp., Lyndhurst, N.J; or BASF MasterSeal P 173 with MasterSeal SL 2 sealant, by BASF, Inc., Shakopee, MN, or approved equal. Color of sealant shall be concrete gray. Asphalt cement will not be approved as a sealant.

Precast Concrete plumbing pit: (for Bottle Filler w/Hi-lo Drinking Fountain Basins) The Concrete Plumbing Pit shall be precast, manufactured by Key Cast Stone Company, Inc., Amityville, NY, Pro Concrete Precast, Jamaica, NY, or approved equal.

Cement: Air entrained Portland cement shall comply with the requirements of the ASTM Designation C150. It shall be Type IIA, moderate sulfate resistant.

Cast stone shall have a compressive strength of not less than forty-five hundred (4,500) pounds per square inch when tested as 2" x 2" x 2" cubes at an age of not more than twenty-eight (28) days and shall have an absorption rate not to exceed seven (7%) percent of the dry weight after being dried to constant weight at 150 degrees Fahrenheit. No chipped, broken, or checked stone showing fine hair cracks or checks on the surface will be accepted.

Aggregate: Natural Sand and gravel shall conform to the requirements of ASTM C33.

Calcium Chloride: Do not use calcium chloride in precast concrete.

Reinforcing Bars: ASTM A 615, Grade 40 or Grade 60 as necessary. Bars are to be used to handle transportation and handling stresses.

Welded Wire Fabric: Shall meet ASTM A185.

Supports for Reinforcement: Provide supports for reinforcement including bolster, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcing.

Miscellaneous Iron and Steel: Access into the concrete plumbing pit shall be via a two (2') foot diameter ductile cast iron frame and "Parks Leaf" manhole cover with locking bolts, as shown on contract plans. Manhole Covers shall be of gray iron per ASTM A48, latest revision, Class 30 or better. Covers shall be as manufactured by Campbell Foundry Co., Harrison NJ or EJ USA, Inc., East Jordan, MI or approved equal. All covers shall be suitable for highway traffic, meeting the requirements for heavy duty H-20 loading, per American Association of State Highway and Transportation Officials (AASHTO) M306-10.

Bolt & Key: Each cover shall be furnished with two (2) locking bolts, similar to the *Intimidator Man-Lock*, as manufactured by McGard, Inc., Orchard Park, N.Y., or approved equal. Two (2) keys shall be furnished per site. For security reasons, keys shall be shipped by McGard directly to the Executive Assistant to the Deputy Commissioner, New York City Parks Olmsted Center, Corona, NY 11368.

Bottle Filler w/ Hi-Lo Drinking Fountain basins: a "Hi-Lo" drinking fountain is defined by Americans with Disabilities Act (ADA) as a unit where one fountain basin is accessible to those who use wheelchairs and one fountain basin is at a standard height convenient for those who have difficulty bending.

Bottle Filler w/ Hi-Lo Drinking Fountain basins: Shall be Model #10145-SM-NYC as manufactured by Most Dependable Fountains, Inc. Arlington, TN, Model #GYQ54-NYC as manufactured by Murdock Manufacturing, City of Industry, CA, Model #LK4430-BF-1U-New York City or approved equal.

Customization of bottle fillers for New York City use:

Manufacturer's identification shall be displayed discreetly on the unit's access panel to facilitate ordering replacement parts.

All parts and installation shall meet applicable requirements of New York City Codes, including type "K" copper tubing throughout for water supply within unit.

Sensor operated bottle filler and freeze resistant valves are Not required under this specification.

Tubular Body: Shall be either pipe or tubular steel or fabricated 304 stainless steel, 12 gauge or better.

Access covers: shall be located for easy access to facilitate maintenance and replacement of parts and shall be fastened with vandal resistant stainless steel screws.

Surface mount: Shall be either stainless steel mount or optional stainless steel surface carrier.

Corrosion Resistant Treatment: All fabrication and welding shall be completed prior to application of the corrosion resistant coating, metal pieces shall be cleaned of all weld spatter, mill scale, varnish, rust, grease, and the like and the surface mechanically and chemically prepared to receive the coating. This corrosion resistant coating shall be a thermal spray zinc coating or electrostatic or immersion applied primer with a minimum thickness of 3 mils. All metal pieces, including welds, shall receive the coating inside and out.

Polyester Powder Coating: A surface coat shall be applied to the thermal zinc coated metal pieces in such a manner that the coating will not peel off. The manufacturer shall perform all processes required to achieve a smooth material bond. An epoxy or acrylic polymer primer shall be applied prior to application of powdercoating. The surface coat shall be an electrostatically sprayed, lead-free, superdurable TGIC (triglycidyl isocyanurate) polyester powder coating applied to a minimum of five (5) mil thickness which shall be oven cured. The TGIC polyester powder coating shall be Ultraviolet (UV) resistant and comply with the ASTM standards.

Material manufacturer's directions for storage and use shall be adhered to. Material surfaces shall be protected during shipment so as to arrive mar and scratch free in the field.

Color- shall be Blue, Green, Black or Silver/Gray, as selected by the Landscape Architect. Where Silver/Gray color is specified, satin finish stainless steel (without corrosion resistance and powder coating) may be substituted.

NYC Water Logo: shall be a silkscreened vinyl decal designed for outdoor use, minimum thickness 3 mm. Decal shall include a UV protected laminate. Adhesive shall be guaranteed to perform at temperatures as low as -10 degrees F. Minimum durability shall be 3 years. Dimension of decal shall be 3 7/8" in width, 7 3/8" in height, light blue color shall be Pantone PMS 292, white color shall be Pantone PMS 663 or approved equal. Logo shall be placed in recess as shown on attached sketch.

Hardware: All hardware, fittings, and fastenings shall be tamper resistant 18-8 stainless steel, type 304 in accordance with ASTM F593 of sizes as indicated on the shop drawings and as required to complete the installation. Anchor bolts shall be minimum 3/8 inch, ten (10") inches long and may be either stainless steel or galvanized steel, quantity as required by the manufacturer.

Bubbler Head: Bubblers shall be rounded one piece design, vandal-resistant type, certified to be lead-free. Bubblers may be either 18-8 stainless steel type 304 or chrome plated cast brass.

Push Button: Shall be stainless steel valve body with a 1 1/2" diameter feather touch vandal resistant push button. Push button for bottle filler and accessible "lo" basin shall be activated by a maximum five (5) pounds of pressure, in compliance with ADA.

Stainless Steel Bowls: Shall be 18 gauge or better stainless steel, type 304, satin finish to comply with ASTM A380 and ASTM A967 standards, install with tamper proof stainless steel screws.

Dog Bowl: construction and finish to match the bottle filler and stainless steel bowl as specified herein.

Lockable Hose Bibb: shall be included in dog bowl/pet fountain models. Locking device shall be constructed to be vandal resistant. The Agency shall supply the lock. A vacuum breaker shall be included.

Waste Strainer: Shall be satin chrome plated brass or stainless steel waste strainer with a 1-1/4" O.D. tailpiece. Plastic waste drain/strainers are not acceptable.

Plumbing: The manufacturer shall have all factory installed plumbing components pre-tested installed before delivery to site. All factory connections to be made by a licensed plumber.

PK-169 WBF.3. PLUMBING: The Contractor shall furnish and install all pipe, fittings, valves, and other foundries to complete the plumbing for the connections and concrete pit. The drain pipe shall be extended five (5') feet beyond the foundation and connected to the sanitary drain line or dry well, as shown on the plans. The one and one-quarter (1 1/4") inch cold water line shall be extended five (5') feet beyond the foundation and connected to the water supply pipe, as shown on the plans.

Connection to water supply shall be made with a threaded, extra heavy fitting. The Contractor shall provide dielectric fitting at appropriate locations, as shown on plan.

Water Piping: Water Piping shall be one and one-quarter (1 1/4") inch rigid hard temper type "K" copper tubing as shown on the plans meeting the specification for ASTM B88. Fittings shall be approved wrought copper and bronze solder-joint pressure fitting American National Standards Institute(ANSI) B16.22.

Pipes through foundation wall shall be protected with a sleeve caulked watertight with a silicone sealant. All appurtenances such as 1 1/4" Gate Valve, 3/4" drain cock, reducer coupling and 3/8" pressure regulator valve shall be installed as per plans, and as directed by the Engineer.

Pipe Supports: Pipe clamps shall be made up of 1" x 3/8" strap iron galvanized and shall be constructed to rigidly hold the pipes firmly in place. Clamps shall be held in place with anchor bolts set in fountain shaft or base.

PK-169 WBF.4. INSTALLATION: Water supply and drainage lines shall be installed as shown on the detail and the plans. Prior to placement of concrete pad or precast concrete plumbing pit, the subgrade and broken stone shall be level and compacted. Concrete pad shall be a smooth, flat, broom finished surface installed flush with adjacent pavement grade and in accordance with the plans and details. Adjacent pavement shall be pitched away from bottle filler.

Bottle Filler: The unit is to be handled at lifting locations designated by the manufacturer; no chipped, cracked, or otherwise defective Bottle Filler will be acceptable.

The fixture shall be surface mounted and installed in accordance with the manufacturer's written directions. Entire assemblies shall be installed in accurate locations, square and plumb in concrete foundation and in required locations to surrounding finished grade, as shown on the plans. Anchor bolts shall be accurately set, plumb and true, in concrete foundation, quantity as recommended by the manufacturer.

Field connection: All field connections to be made by a Licensed Plumber, as per Contract Drawings for complete and satisfactory operating unit to the satisfaction of the Engineer. The factory installed portion of the cold water supply and waste water lines shall be extended from the Bottle Filler/Drinking Fountain Base at lengths indicated on the drawings. Water and Drain lines shall be pitched away from the Bottle Filler/Drinking Fountain. Pockets in rigid piping that cannot be drained by gravity will be rejected. The plumber will be required to reinstall piping until gravity drain is achieved.

Winterization: The unit shall be winterized by shutting off water supply and opening bleeder valve (outside of fountain). The bottle filler, dog bowl and drinking fountain basins shall be designed to allow internal water to drain by gravity.

PK-169 WBF.5. SUBMITTALS: Shall be submitted in accordance with the requirements of the **General Conditions, Section 1.06**, of the Standard Highway Specifications.

PK-169 WBF.6. Shop Drawings: The Contractor shall submit a catalogue cut and a complete dimensional Shop Drawing of the bottle filler showing all components including color, internal

plumbing, access panels, gauges of metal and thickness of wall construction at least twelve (12) weeks prior to proposed installation. NYC Water logo decal shall be displayed on shop drawing.

Warranty: The Manufacturer warrants that the bottle filler and accessory to be free from defects in material and workmanship under normal use for (1) year from date of installation or eighteen (18) months from date of shipment from the factory, whichever occurs first. Manufacturer's standard one year warranty shall be submitted.

Operation and Maintenance Manual: The Contractor shall furnish an Operation and Maintenance (O & M) Manual prepared in conjunction with the manufacturers of equipment in this specification. The O & M manual shall contain the following:

- 1) Description of system operation.
- 2) Troubleshooting and Repair Guide.
- 3) List of parts with their model numbers.

PK-169 WBF.7. MEASUREMENT AND PAYMENT: For each **BOTTLE FILLER W/ HI-LO DRINKING FOUNTAIN BASINS** furnished and installed in accordance with the plans, specifications, and directions of the Engineer, the Contractor shall receive the unit price bid.

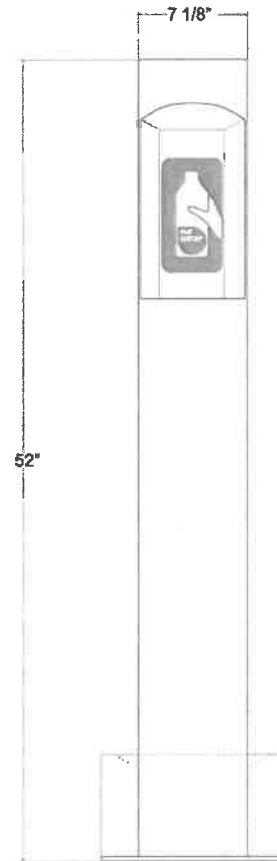
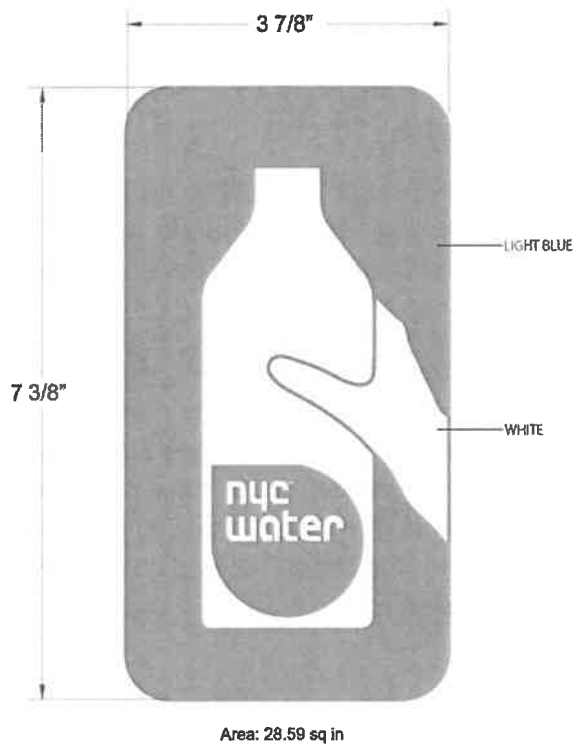
PK-169 WBF.8. PRICE TO COVER: The price bid shall be a unit price for **EACH BOTTLE FILLER W/ HI-LO DRINKING FOUNTAIN BASINS** and shall include the cost of all labor, materials, equipment, Insurance and incidentals necessary or required to complete the work including excavation, broken stone, precast concrete plumbing pit, miscellaneous iron and steel, Parks Leaf manhole cover, locking security bolts, hardware, logo decal, submittals, all components integral with the bottle filler, all plumbing work and connections to water and drain service within five (5') feet from the outside edges of the foundation, all in accordance with the plans and specifications, to the satisfaction of the Engineer.

*Attachment: NYC Water logo sketch

Payment with be made under:

Item No.	Item	Pay Unit
PK-169 WBF	BOTTLE FILLER W/ HI-LO DRINKING FOUNTAIN BASINS	EACH

NYC WATER LOGO



SECTION PK-184-1
GROUND HYDRANT - 1" DIA.

PK-184-1.1. INTENT: The Contractor shall furnish and install a ground hydrant, all piping, fittings, and other sundries necessary to connect the water lines, as shown on the plans, to the satisfaction of the Engineer.

PK-184-1.2. DESCRIPTION: Under these items, the Contractor shall furnish all labor, materials and equipment necessary or required to install a GROUND HYDRANT - 1" DIA. Including, but not limited to, all plumbing work and connection to water service in accordance with the plans, specifications, and directions of Engineer.

PK-184-1.3. MATERIALS: Unless otherwise herein specified, all materials and methods of construction shall conform to requirements of the New York City Department of Transportation (NYCDOT) Standard Highway Specifications.

(A) Equipment: One Inch (1") Diameter Ground Hydrant shall be Type Z-1360-HD-RK-10 as manufactured by Zurn Industries Inc., Hydromechanics Division, Erie, PA, or approved equal as manufactured by Jay R. Smith Manufacturing Co., Montgomery AL or MIFAB, Inc. Chicago, IL. Hose connection shall be one inch (1").

Hydrant is encased, ground hydrant for flush-with-grade installation, complete with bronze casing, polished nickel bronze box, all bronze interior parts, bronze seat and replaceable seat washer, non-turning operating rod with free-floating compression closure valve with 1" or 2" connection. Polished nickel-bronze box shall have a scoriated heavy-duty cover with operating key lock and "Water" cast on cover. Depth of bury is two (2) feet minimum for both size Ground Hydrants. Four (4) keys are to be supplied to the Borough Foreman of Mechanics.

Brass Garden Hose Adaptor (for one inch Ground Hydrant only): Shall be (1"=>3/4) Model # FM1076 as manufactured by George Taylor Brass and Bronze Works, Huntington, N.Y., or approved equal as manufactured by Jay R. Smith Manufacturing Co., Montgomery AL or Zurn Industries Inc., Hydromechanics Division, Erie, PA.

(B) Broken Stone: Broken Stone shall consist solely of crushed ledge rock. Stone shall be as designated on the detail and shall be of the approved size and quality specified in New York City Department of Design and Construction (NYCDDC) Highway Specifications, Division II Basic Materials of Construction, Section 2.02 Aggregate-Coarse (Broken Stone and Gravel)

PK-184-1.4. SUBMITTALS: All submittals shall be submitted as per the requirements of the NYCDOT Standard Highway Specifications, Section 1.06.13. (G). Submission of Shop and Working Drawings.

(A) Shop Drawings: The Contractor shall submit shop drawings when required, in accordance with the NYCDOT Standard Highway Specifications, Section 1.06.13. Shop and Working Drawings.

(B) Operating Keys: The Contractor shall furnish four (4)-operating keys for each hydrant installed under this item.

(C) Parts Repair Kit: Contractor shall supply one (1) Parts Repair Kit for each Ground Hydrant installed under this item.

PK-184-1.5. MEASUREMENT: The quantity to be measured for payment shall be the number of Ground Hydrants – 1" Diameter size actually installed at the site, complete with all plumbing work, to the satisfaction of the Engineer.

PK-184-1.6. PRICE TO COVER: The price bid shall be a unit price per EACH for a Ground Hydrant -1" Diameter size and shall include the cost of all labor, materials, equipment, insurance, and incidental expenses necessary to complete the work including, but not limited to, all plumbing work and connections to water service within five (5') feet of the ground hydrant, furnishing and installing broken stone, hose adapter, and all submittals; all in accordance with the plans, the specifications, and the directions of the Engineer.

Payment with be made under:

Item No.	Item	Pay Unit
PK- 184-1	GROUND HYDRANT - 1" DIAMETER	EACH

**SECTION PK-225B
ASPHALT BLOCK PAVEMENT ON ASPHALT CONCRETE BASE**

PK-225B 1. WORK: Under this item, the Contractor shall furnish and install asphalt block pavement of various shapes, sizes and finishes in accordance with the plans, specifications and directions of the Engineer.

PK-225B 2. PATTERN: The layout of the pavers shall be subject to approval by the Engineer. Layout patterns and paver designs are indicated on the plans. All edges, borders and corners of paved area shall be finished to true and neat lines. Special cutting, soldier courses, color patterns, various shapes and variations in size and finish, are all to be included in the square yard price bid.

PK-225B 3. MATERIALS:

BASE COURSE: The material for the base course shall meet the requirements of the latest edition of the New York State Department of Transportation (NYSDOT) Standard Specifications Section 400 "Bituminous Pavement".

Composition of the asphalt concrete binder shall be Type 3 as indicated in the following table:

COMPOSITION OF BINDER TYPE 3

<u>SCREEN SIZE</u>	<u>GENERAL LIMITS % PASSING</u>	<u>JOB MIX TOL. %</u>
1 1/2"	100	---
1"	95-100	---
1/2"	70-90	+/-6
1/4"	48-74	+/-7
1/8"	32-62	+/-7
No. 20	15-39	+/-7
No. 40	8-27	+/-7
No. 80	4-16	+/-4
No. 200	2-8	+/-2
Asphalt Content, %	4.5-6.5	+/-0.4

Asphalt Cement shall be 100 percent soluble in Trichloroethylene. The mixing and placing temperature shall be 250° to 325° F. The Viscosity of the asphalt shall be AC 20.

The mix shall have a minimum Marshall Stability of 500 lbs., flow of 8 to 16, and percent of air voids 3 to 5 percent.

The asphalt mix may contain a maximum of 15% by weight of Recycled Asphalt Pavement (R.A.P.) material. The R.A.P. shall be certified by the inspection service before use and shall be free of dirt, debris, garbage, metal, glass and any other deleterious material. R.A.P. shall be tested by an approved laboratory for (%) percent asphalt cement before mixing. R.A.P. shall be screened prior to mixing so that final mix meets the specification. The City reserves the right to reject the R.A.P. asphalt mix if in the determination of the Engineer, the mix is contaminated with dirt, debris, garbage, metal, or glass.

BITUMINOUS SETTING BED: Asphalt cement to be used in the bituminous setting bed shall conform to PG 64-22, American Society for Testing and Materials (ASTM) D6373 for Performance Graded Asphalt.

The fine aggregate to be used in the bituminous setting bed shall be clean, hard sand with durable particles and free from adherent coatings, lumps of clay, alkali salts and organic matter. It shall be uniformly graded from "coarse" to "fine" and all passing the No. 4 sieve and meet the gradation requirements when tested in accordance with the standard method of test for sieve or screen analysis of fine and course aggregates ASTM C136.

The dried fine aggregate shall be combined with hot asphalt cement, and the mix shall be heated to approximately 300° F. at an asphalt plant. The approximate proportion of materials shall be six (6%) percent cement asphalt and ninety-four (94%) percent fine aggregate. Each ton shall be apportioned by weight in the approximate ratio of 120 lbs. asphalt to 1,880 lbs. sand. The Contractor shall determine the exact proportions to produce the best possible mixture for construction of the bituminous setting bed to meet construction requirements.

Bituminous setting shall be manufactured by Willets points, College Point Queens, Weldon Materials., Kearney & Watchung NJ plants, RCA Asphalt Mount Vernon or approved equal.

TACK COAT shall be # 237 2% Neo-Asphalt, Brush Grade as manufactured by Hanover Architectural Products, Hanover, PA, or approved equal. Tack coat shall be an asbestos free, cold applied, rubberized asphalt cement, and shall consist of two percent (2%) neoprene rubberized asphalt with 150° softening point and 6.5 percent (6.5%) inorganic material.

ASPHALT BLOCK: Unless otherwise noted on the plans, all pavers shall be hexagonally shaped asphaltic concrete blocks, eight (8") inches between parallel sides and two (2") inches in thickness, with a permissible plus or minus tolerance of one-sixteenth (1/16") inch in any dimension.

The blocks shall be composed of approximately 6.5% ± (plus or minus) .5% high melting point oxidized asphalt conforming to ASTM Designation D-312 for type 3 asphalt and 94% graded crushed rock aggregate and mineral filler; at the temperature of 300 degrees F° the mix is compressed 4,000 lbs. per square inch by high speed hydraulic presses.

The blocks shall be as manufactured by Hanover Architectural Products, Inc. of Hanover, Pa., or approved equal. Top exposed surface of blocks shall have a ground finish, exposing a small aggregate, similar in appearance to Hanover's Matrix #10, unless otherwise noted in the Contract Drawings. The total recycled content of the blocks shall be 23.6%, or approved equal.

FORMS: The forms for this work shall be of wood of an approved type and a minimum length of ten

(10') feet for tangents and curves, unless otherwise shown on the plans.

All forms shall be straight, free from bends and warps at all times, and shall be cleaned thoroughly and oiled before pavement is placed against them; this cleaning and oiling being repeated daily as the forms are moved ahead. The forms shall rest firmly upon the thoroughly compacted sub-grade throughout their entire length, shall be joined neatly and tightly and staked securely to line and grade at least two hundred (200') feet in advance of the point of placement by using at least three (3') bracing pins or stakes to each ten (10') foot length of side

form, so that they will resist the pressure of the pavement and the impact of the roller without springing.

APPROVAL OF SOURCES OF SUPPLY: Approval of the sources of aggregate shall be obtained from the Engineer prior to the delivery of material.

INSPECTION: Equipment, materials and preparation of the mixtures will be subject to inspection and approval at the refineries and plant as may be directed. In conjunction therewith, the Contractor shall employ the services of an approved inspection service for the purpose of providing plant certification of the asphalt pavement mixture conformance to these specifications. The inspection services shall be under the jurisdiction of and shall report directly to the Engineer.

TESTS: Unless otherwise specifically provided, tests of materials shall be made in accordance with the latest specifications of the ASTM.

TRANSPORTING: Shipments of material shall be made in tight vehicles previously cleaned of all foreign material, and delivered to the work, so that it will not become contaminated in any way.

PK-225B 4. INSTALLATION:

SUBGRADE PREPARATION: The subgrade shall be compacted with equipment that will yield the following density:

Cohesive Subgrade - density	Minimum of 95% of AASHTO 180 Method D
Cohesionless Subgrade - density	Minimum of 100% of AASHTO 180 Method D

The Contractor shall remove from the subgrade all debris, foreign and other undesirable material which interferes with satisfactory construction. The fine grade shall not be muddy or otherwise unsatisfactory when the base course material is placed upon it. If the fine grade becomes rutted or displaced, due to any cause whatsoever, the Contractor shall regrade same without additional payment.

SPREADING OF BASE COURSE: The asphalt cement base course shall be laid by means of a mechanical spreader of approved design to a depth, which after compaction, shall be equal to the specified depth. In areas where the use of a mechanical spreader is impractical, as determined by the Engineer, other approved means of spreading and compacting may be permitted. The use of hand rakes will not be permitted. The Contractor shall use lutes where necessary.

ROLLING OF BASE COURSE: The asphalt concrete base course when properly spread shall be rolled with one or more approved power driven rollers weighing not less than 10 tons. Rolling shall proceed continuously not in excess of the following rates:

<u>Method of Placement</u>	<u>Square Yd/Hr/Roller</u>
Hand	800
Machine	1200

After final compacting, the base course shall have a density of not less than 95% of the theoretical maximum density as calculated in accordance with Appendix B of the Asphalt Institute Manual, MS-2.

After compaction of the base course and before the placing of the asphaltic block, the binder course shall be checked for depressions and high spots. The Contractor shall check the entire surface using a 10 foot wood or metal straight edge. Any depressions or high spots greater than three-sixteenths (3/16") of an inch shall be satisfactorily corrected before placing the asphalt block.

BITUMINOUS SETTING BED: To install the setting bed over the surface of the base, place 3/4" deep control bars directly over the base course. If grades must be adjusted, set wood chocks under depth control bars to proper grade. Set two bars parallel to each other approximately 11 feet long (2" x 6" board). The depth of control bars must be set carefully to bring the paver, when laid, to the proper grade.

Place some bituminous material between the parallel depth control bars. Pull this bed with the striking board over these bars several times. After each passage, low porous spots must be showered with fresh bituminous materials to produce smooth, firm and even setting bed. As soon as this initial panel is completed, advance the first bar to the next position in readiness for striking the next panel.

Carefully fill up any depressions that remain after removing the depth control bars and wood chocks.

Bed shall be spread in a continuous workmanlike manner. Installation of base in spotted, different and isolated areas will not be accepted. Bed depth greater than 1-1/8" will not be acceptable.

After setting bed has cooled, it shall be rolled by hand with a 100 lb. roller to eliminate sponginess and to prepare the surface for the installation of the tack coat.

Setting bed shall be protected against all pedestrian traffic and construction equipment to insure a level surface for setting pavers.

TACK COAT: The neoprene-modified asphalt adhesive tack coat shall be applied by mopping, squeegeeing or troweling over the top of the bituminous setting bed so as to provide a bond between the bituminous setting bed and the paver.

SETTING PAVERS: When modified asphalt adhesive is dry to touch, carefully place the pavers by hand, ground finish side up unless otherwise specified, in straight course, with hand tight joints and uniform top surfaces, keeping full alignment according to the patterns shown on the plans.

Pavers may vary slightly in shade and tonality. Installer shall work from at least four (4) pallets at a time in order to create a uniform blend of paver shades.

Joints between blocks shall have a maximum width of one-eighth (1/8") inch.

All blocks shall be cleaned when placed on the pavement.

In no case shall the bituminous setting bed in front of the pavement be disturbed or walked on during the laying of the blocks.

JOINT FILLER: Upon the completion of the work of laying the blocks in each section to the satisfaction of the Engineer, the surface of the blocks shall be swept clean, and the joints filled with fine sand. All joints shall be filled the same day as the blocks are laid. Filler shall not be applied if the blocks are wet or if the air conditions are such that the filler does not readily enter the joints. Filler shall be well worked into the joints by means of squeegees or other approved devices operating slowly backward and forward. Squeegeeing shall continue until the joints are flush with top surface. Immediately after the joints are filled, the pavement shall be lightly sprayed and cleaned.

PK-225B 5. DEFECTS: Where defects in composition, compression or finished appear in the complete work, such finished areas shall be removed to the full depth of the course and the defective material replaced with the required thickness of pavement at the expense of the Contractor for such removing and replacing.

PK-225B 6. COLD WEATHER: Asphalt base course shall be mixed and placed in accordance with minimum placement temperature as specified in the following table:

MINIMUM PLACEMENT TEMPERATURES

MAT THICKNESS IN INCHES

SURFACE	1/2"	3/4"	1"	1 1/2"	2"	3"
TEMP. (F)			TEMPERATURE OF THE MIX			
+32-40	--	--	--	305	295	280
+40-50	--	--	310	300	285	275
+50-60	--	310	300	295	280	270
+60-70	310	300	290	285	275	265
+70-80	300	290	285	280	270	265
+80-90	290	280	275	270	265	260
+90	280	275	270	265	260	255
ROLLING TIME MINUTES	4	6	8	12	15	15

Unless notified by the Engineer in writing, no material shall be mixed or placed when the temperature is at, or lower than 50° F.

PK-225B 7. PRECIPITATION PROBABILITY: Placement of bituminous paving materials shall not be scheduled when the Precipitation Probability, obtained by the Contractor from the U.S. Weather Bureau within three (3) hours prior to the start of such operations, equals or exceeds fifty (50%) percent. The Contractor shall notify the Engineer of the exact time at which the above information was obtained.

PK-225B 8. SUBMITTALS: Shall be submitted in accordance with the requirements of the **General Conditions, Section 1.06**, of the Standard Highway Specifications.

PK-225B 9. ASPHALT BASE FORMULA: Before the Contractor begins to manufacture the asphalt paving mixture, he shall secure the Engineer's approval of the formula he proposes to use.

PK-225B 10. SAMPLES: The Contractor shall submit samples of each type of paver he proposes to use for approval by the Engineer. The samples shall be clearly labeled with Contract No., manufacturer, and finish. All pavers used on the work shall conform to approved samples.

PK-225B 11. MEASUREMENT AND PAYMENT: The quantity of **ASPHALT BLOCK PAVEMENT ON ASPHALT CONCRETE BASE** to be paid for under this item shall be the number of **SQUARE YARDS** of pavement constructed in accordance with the plans, specifications and directions of the Engineer.

PK-225B 12. PRICE TO COVER: The price bid shall be a unit price per **SQUARE YARD** and shall include all labor, material, equipment, insurance and incidental expenses necessary to complete the work, including asphalt base and bituminous setting bed, neoprene adhesive and asphalt block pavers, inspection services, all in accordance with the plans and specifications to the satisfaction of the Engineer.

Excavation will be paid for under the Item 6.02 AAN.

Payment with be made under:

Item No.	Item	Pay Unit
PK- 225 B	ASPHALT BLOCK PAVEMENT ON ASPHALT CONCRETE BASE	S.Y.

SECTION PK-225C
ASPHALT BLOCK PAVEMENT ON CONCRETE BASE

PK 225C.1. WORK: Under this item the Contractor shall furnish and place ASPHALT BLOCK PAVEMENT ON CONCRETE BASE, in accordance with the plans, specifications, and directions of the Engineer.

Pattern: The layout of the pavers shall be subject to approval by the Engineer. Layout patterns and paver designs are as indicated on the plans. All edges, borders, and corners of the paved area shall be finished to true and neat lines. Special cutting, soldier courses, color patterns, various shapes, and variations in size and finish are all to be included in the square yard price bid.

PK 225C.2. MATERIALS: Except as otherwise provided for herein, the materials and methods of construction shall meet the requirements of corresponding Sections of Divisions II and IV of NYCDOT Standard Highway Specifications, dated August 01, 2015,

Bituminous Setting Bed: Asphalt cement to be used in the bituminous setting bed shall conform to PG 64-22, American Society for Testing and Materials (ASTM) D6373 for Performance Graded Asphalt.

The fine aggregate to be used in the bituminous setting bed shall be clean, hard sand with durable particles and free from adherent coatings, lumps of clay, alkali salts and organic matter. It shall be uniformly graded from "course" to "fine" and all passing the No. 4 sieve and meet the gradation requirements when tested in accordance with the standard method of test for sieve or screen analysis of fine and course aggregates ASTM C136.

The dried fine aggregate shall be combined with hot asphalt cement, and the mix shall be heated to approximately 300°F. at an asphalt plant. The approximate proportion of materials shall be six (6%) percent cement asphalt and ninety-four (94%) percent fine aggregate. Each ton shall be apportioned by weight in the approximate ratio of 120 lbs. asphalt to 1,880 lbs. sand. The Contractor shall determine the exact proportions to produce the best possible mixture for construction of the bituminous setting bed to meet construction requirements.

Tack Coat: Tack coat shall be # 237 2% Neo-Asphalt, Brush Grade as manufactured by Hanover Architectural Products, Hanover, PA, or approved equal. Tack coat shall be asbestos free, cold applied, rubberized asphalt cement, and shall consist of two percent (2%) neoprene rubberized asphalt with 150° softening point and 6.5 percent (6.5%) inorganic material.

Asphalt Block: Unless otherwise noted on the plans, all pavers shall be hexagonally shaped asphaltic concrete blocks, eight inches (8") between parallel sides and two inches (2") in thickness, with a permissible plus or minus tolerance of one-sixteenth inch (1/16") in any dimension.

The blocks shall be composed of approximately 6.5%+/- (plus or minus) .5% high melting point oxidized asphalt conforming to ASTM Designation D-312 for Type 3 asphalt and ninety four percent (94%) graded crushed rock aggregate and mineral filler; at the temperature of 300 degrees F° the mix is compressed 4,000 lbs. per square inch by high speed hydraulic presses.

The blocks shall be as manufactured by Hanover Architectural Products Inc. of Hanover, PA., or approved equal. Top exposed surface of blocks shall have a ground finish, exposing a small

aggregate, similar in appearance to Hanover's Matrix #10, unless otherwise noted in the Contract Drawings. The total post-industrial recycled content of the blocks shall be 23.6 %, or approved equal.

Concrete Base: The concrete base shall be as shown on the plans.

Concrete: Concrete shall be air entrained concrete, $f'_c = 3,200$ p.s.i. with a minimum of 6 bags of cement per cubic yard of concrete as per Method I of C-26-1004.3 of the New York Building Code as amended to date, equivalent to New York City D.O.T. Class B-3200, Type IIA concrete.

Cement: Air Entraining Portland Cement shall comply with the ASTM specifications for Portland cement, Designation C175. It shall be Type IIA, Moderate Sulfate Resistant.

Foundation: Material for Foundation shall be a straight run of single size aggregate and shall consist of either all one and one-half (1 1/2") inch stone or all three-quarter (3/4") inch stone in accordance with ASTM C33, free from organic or other deleterious material. In addition, Foundation Material may contain no more than five (5%) percent of fines, defined as aggregates passing a No.4 sieve or smaller.

The Magnesium Sulfate Soundness loss after ten (10) cycles shall be eighteen (18%) percent or less, as per ASTM C88. Coarse aggregate may be one of the following:

- A. Broken Stone or gravel of approved quality and conforming to the requirements of Divisions II and IV of NYCDOT Standard Highway Specifications, dated August 01, 2015. ,
- B. Recycled Material consisting of at least ninety five (95%) percent by weight of the following:
 1. Recycled Portland Cement Concrete Aggregate or
 2. Recycled Portland Cement Concrete Aggregate mixed with Stone Gravel.

Laboratory Testing: The Contractor shall, at the direction of the Engineer, or when quantities exceed 30 (thirty) cubic yards, furnish a certified report by an approved Materials Testing Laboratory showing the materials composition, sieve analysis, plasticity index, and soundness of the representative samples of recycled material which they propose to use.

The Engineer will deliver the samples to an independent testing laboratory. The Contractor shall bear responsibility for all costs associated with laboratory testing. No recycled material shall be delivered to the site until positive test results have been obtained. The Engineer reserves the right to reject on or after delivery any material which does not, in their opinion, meet these specifications.

PK 225C.3. EXECUTION:

Preparation of Fine Grade: Before any pavement is placed upon the fine grade, the fine grade shall be prepared to line and grade and compacted where practicable with an approved self propelling roller weighing not less than ten (10) tons. All hollows and depressions which develop under rolling shall be filled with acceptable material and shall again be rolled. This process of shaping, filling and rolling shall be repeated until no depressions develop.

The Contractor shall remove from the subgrade all debris, foreign material, and all other undesirable material designated by the Engineer. The fine grade shall not be muddy or otherwise unsatisfactory when the pavement is placed upon it. If the fine grade becomes rutted or displaced, due to any cause whatsoever, the Contractor shall regrade same without additional payment.

Spreading: Material for foundation shall be evenly spread on a prepared sub-grade in the position shown on the plans or directed by the Engineer, in four inch (4") layers, each layer to be rolled while wet with a seven (7) to twelve (12) ton tandem roller (or other approved method satisfactory to the Engineer) to the thickness shown on the plans or directed by the Engineer.

Forms: Forms shall be made of substantial material (preferably steel), with suitable metal dividing plates and of sufficient strength to satisfactorily resist distortion when fastened together and secured in place. Forms and dividing plates shall be of depth not less than that of the thickness of the concrete slab, properly located with tops set to the designated sidewalk surface, and left in place until the concrete is set.

Construction: Foundation course shall be wetted immediately before concrete is placed. The concrete shall be placed within the forms and thoroughly tamped until the surface is at the finished grade. The top surfaces shall be finished to true smooth planes by troweling.

When base is constructed in independent slabs, they shall be separated by expansion joints approximately one-quarter (1/4") inch wide. Adjacent to structures, (manholes, hydrants, etc.) expansion joints and sealant shall be installed as directed.

Expansion Joint: The Contractor shall furnish and place expansion joint every 400 square feet or as shown on the plans. The expansion joint material shall be one of the following.

1. A premoulded bituminous fiber joint filler as specified in Section "B" (requires a bond breaker and sealant) or,
2. A premoulded closed cell expanded polyethylene form joint filler such as Sonoflex F by Soneborn Corporation, Shakopee, MN (requires only sealant) or, an approved equal of any of the above.

If bituminous fiber material is used, a bond breaker such as one-half inch (1/2") width polyurethane tape or five-eighths inch (5/8") diameter expanded polyethylene foam backer rod shall be installed as recommended by manufacturer prior to pouring sealant. A bond breaker will not be required for a premoulded foam joint, but sealant is always required.

Sealant: After the concrete is placed, finished, and set, and the bond breaker, if necessary installed, the space as shown in the drawings shall be filled with a poured joint sealer. Joint sealer shall be a 2- component polyurethane base elastomeric sealant such as Sikaflex 2C-SL manufactured by Sika Corporation, Lyndhurst, NJ, or a 1-component polyurethane base elastomeric sealant, such as Sonolastic SLI manufactured by Sonneborn, Shakopee, MN, or approved equal. Asphalt cement will not be approved as a sealant. Install sealant in accordance with manufacturer's instructions including allowable minimum temperature of 40 degrees Fahrenheit.

Clean all surfaces of joint. Surfaces must be sound, clean dry and free from oil or grease. Mask sides of joint with masking tape to prevent spillage onto adjacent pavement.

Pour sealant in joints and tool to produce a smooth surface. If bubbles form, wait 5-10 minutes before tooling to break the bubbles. Remove excess sealant promptly as the work progresses and clean the adjacent surfaces. Remove masking tape.

Protection and Curing Concrete: Concrete base shall be carefully protected from the drying effects of the sun and wind, traffic, or other causes by means of suitable guards and coverings, and shall be kept moist for period of three days. Before laying asphalt pavers Engineer shall inspect and approve the concrete base.

Bituminous Setting Bed: To install the setting bed over the surface of the base, place three-quarter inch (3/4") deep control bars directly over the base course. If grades must be adjusted, set wood chocks under depth control bars to proper grade. Set two bars parallel to each other approximately 11 feet long (2" x 6" board). The depth of control bars must be set carefully to bring the paver, when laid, to the proper grade.

Place some bituminous material between the parallel depth control bars. Pull this bed with the striking board over these bars several times. After each passage, low porous spots must be showered with fresh bituminous materials to produce smooth, firm and even setting bed. As soon as this initial panel is completed, advance the first bar to the next position in readiness for striking the next panel. Carefully fill up any depressions that remain after removing the depth control bars and wood chocks.

Bed shall be spread in a continuous workmanlike manner. Installation of base in spotted, different and isolated areas will not be accepted. Bed depth greater than 1-1/8" will not be acceptable. After setting bed has cooled, it shall be rolled by hand with a 100 lb. roller to eliminate sponginess and to prepare the surface for the installation of the tack coat. The setting bed shall be protected against all pedestrian traffic and construction equipment to insure a level surface for setting pavers.

Tack Coat: The neoprene-modified asphalt adhesive tack coat shall be applied by mopping, squeegeeing or troweling over the top of the bituminous setting bed so as to provide a bond between the bituminous setting bed and the paver.

Setting Pavers: When modified asphalt adhesive is dry to touch, carefully place the pavers by hand, ground finish side up unless otherwise specified, in straight course, with hand tight joints and uniform top surfaces, keeping full alignment according to the patterns shown on the plans. Joints between blocks shall have a maximum width of one-eighth inch (1/8").

Pavers may vary slightly in shade and tonality. Installer shall work from at least four (4) pallets at a time in order to create a uniform blend of paver shades.

All blocks shall be cleaned when placed on the pavement. In no case shall the bituminous setting bed in front of the pavement be disturbed or walked on during the laying of the blocks.

Joint Filler: Upon the completion of the work of laying the blocks in each section to the satisfaction of the Engineer, the surface of the blocks shall be swept clean, and the joints filled with fine sand. All joints shall be filled the same day as the blocks are laid. Filler shall not be applied if the blocks are wet or if the air conditions are such that the fill does not readily enter the joints. Filler shall be well worked into the joints by means of squeegees or other approved devices operating slowly backward and forward. Squeegeeing shall continue until the joints are flush with top surface. Immediately after the joints are filled, the pavement shall be lightly sprayed and cleaned.

PK 225C.4. DEFECTS: Where defects in material or installation appear in the completed work, such areas shall be removed to the full depth of the course and the defective material replaced with new for the required thickness of pavement at the expense of the Contractor for such removing and replacing.

PK 225C.5. SUBMITTALS: Shall be submitted in accordance with the requirements of the **General Conditions, Section 1.06**, of the Standard Highway Specifications.

PK 225C.6. SAMPLES: The Contractor shall submit samples of each type of paver they propose to use for approval by the Engineer. The samples shall be clearly labeled with Contract No., manufacturer, and finish. All pavers used on the work shall conform to the approved samples. A three (3) pound bag of stone screenings shall be submitted to the Engineer for approval, with a sieve analysis and the name of supplier attached.

PK 225C.7. MEASUREMENT AND PAYMENT: The quantity of ASPHALT BLOCK PAVEMENT ON CONCRETE BASE to be paid for under this item shall be the number of SQUARE YARDS of pavement constructed as shown on the plans and in accordance with the specifications and directions of the Engineer.

PK 225C.8. PRICE TO COVER: The price bid shall be a unit price per **SQUARE YARD** of Asphalt Block Pavement on Concrete Base of each type and shall include the cost of all labor, materials, equipment, insurance and incidental expenses necessary to complete the work, including asphalt pavers setting bed and expansion joints, concrete base, foundation material, all in accordance with the plans and specifications to the satisfaction of the Engineer, except Unclassified Excavation, which shall be paid for under its respective Item.

Payment with be made under:

Item No.	Item	Pay Unit
PK-225 C	ASPHALT BLOCK PAVEMENT ON CONCRETE BASE	S.Y.

SECTION PK-242R-A
BENCH, TYPE 'A' WITH REINFORCED RECYCLED PLASTIC LUMBER SLATS

PK 242R-A.1. WORK: Under these Items, the Contractor shall furnish and install BENCH, TYPE 'A' W/ REINFORCED RECYCLED PLASTIC LUMBER (R.P.L.) SLATS in accordance with the plans, specifications, and directions of the Engineer. In addition the Contractor shall furnish extra materials to New York City Department of Parks and recreation (NYCDPR) Borough of Maintenance and operations (M. & O.), as specified under the heading, EXTRA MATERIALS.

PK 242R-A.2. MATERIALS: Except as otherwise provided for herein, the materials and methods of construction shall meet the requirements corresponding Sections of Divisions II and IV of NYCDOT Standard Highway Specifications, dated August 01, 2015

Benches shall be No. 6737 or 6736 (backless), as manufactured by Kenneth Lynch & Sons, Oxford, CT, "Liberty Bench" as manufactured by Kevin G. Lindelow Quality Site Furnishings, Frenchtown, NJ, or "World's Fair Bench" as manufactured by All City Play Equipment, Inc., Brooklyn, NY, or approved equal. There are minor variations from the standard detail dimensions among manufacturers.

PK 242R-A.3. STANDARDS: Bench standards shall be of cast ductile iron. The tensile strength shall meet a minimum of 65,000 psi, in accordance with American Society for Testing and Materials (ASTM) A536, Grade 65-45-12. Standards shall be either painted or powdercoated, as per this specification.

(A) Steel Back Supports, Seat Supports and Cross Bars: Shall be steel bar and channel of sizes as indicated on the drawings, formed to the curve of the back and seat and secured to the recycled plastic slats with vandal-resistant stainless steel screws.

(B) Finishes: The Contractor shall supply either powdercoated or painted metal surfaces, including cast ductile iron bench standards, brace rods, steel back supports, seat supports, and cross bars. Color shall be Black. Both types of finishes are outlined below:

(C) Powdercoating: All metal surfaces shall be powder coated with a polyester thermosetting powdercoating such as manufactured by Tiger Drylac U.S.A., Reading, PA, or approved equal. Standards, brace rods, steel back supports, seat supports, and cross bars shall be Gloss Black.

Powdercoating shall be applied to the metal in such a manner that the coating will not peel off. Ensure surfaces to be coated are clean and dry and free of grease, dust, rust, etc. All surfaces shall first receive phosphating and chromating treatments to improve the adhesion of the surface coating.

Powdercoating shall be applied to a film thickness of 3 to 4 mils by electrostatic spray process and bake finished per manufacturer's directions. It shall be applied without voids, tears, or cuts that reveal the substrate and shall thoroughly adhere to the metal without peeling when

scratched with a pick device or knife blade point. All visible nuts, washers, and ends of all bolts shall be painted with touchup paint as described below.

1. Touchup and Repair: For minor damage caused by installation or transportation, touch-up finish in conformance with manufacturer's recommendations. Provide touch-up such that repair is not visible from a distance of six feet (6').
2. Laboratory Test For TGIC-Polyester Powder Coat: At the discretion of the Engineer, a sample TGIC-Polyester powder coated bench standard may be laboratory tested for bonding of the powdercoating to the metal. The test shall be the Cross Hatch test per ASTM D3359, Method B. Failure to satisfactorily pass this test shall be a basis for rejection.

(D) Painting: All metal surfaces shall receive three (3) coats of shop applied paint. Immediately prior to painting, all surfaces shall be thoroughly clean. All surfaces that are rust free shall be cleaned in accordance with SP-1, Solvent Cleaning. Cleaning shall be performed with a solvent such as mineral spirits, xylol, or turpentine to remove all dirt, grease, and foreign matter. Surfaces that show evidence of scale and rust shall be cleaned in accordance with SP-2, Hand Tool Cleaning, a method generally confined to wirebrushing, sandpaper, hand scrapers, or hand impact tools, or SP-3, Power Tool Cleaning, a method generally confined to power wirebrushes, impact tools, power sanders, and grinders in order to achieve a sound substrate. After the standards have been cleaned and prepared, they shall be painted as follows:

1. First Coat: Universal Metal Primer, M07, White, as manufactured by Benjamin Moore & Co. or approved equal. The Primer is a phenolic alkyd flat finish coating having a dry film thickness of 2 mils. Paint requires one (1) to two (2) hours drying time before recoating
2. Second and Third Coats: D.T.M. (Direct to Metal) Alkyd semi gloss, Safety Black, as manufactured by Benjamin Moore & Co., or approved equal. The coating is a modified alkyd having a dry film thickness of 2 mils for each coat. Paint requires eight (8) hours drying time before recoating.

All three (3) coats shall be shop painted. All paints shall be applied when the ambient air temperature is forty five (45) degrees F. and rising and when surfaces to be painted are moisture free. No painting will be allowed below the minimum ambient air temperature. In addition, no painting will be allowed below the temperature at which moisture will condense on surfaces.

PK 242R-A.4. BENCH SLATS – RECYCLED PLASTIC LUMBER: Recycled plastic lumber slats shall be fabricated from a minimum ninety percent (90%) post consumer recycled high density polyethylene (HDPE). HDPE resins shall meet the requirements of ASTM D1248 for Type II or IV (high density), Grade G7. Materials shall contain no toxic substances. Recycled plastic lumber shall contain Ultraviolet (UV) inhibited pigment and shall not absorb moisture, corrode, rot, warp, splinter, or crack and shall not contain fiberglass or any material that will be irritating in contact with skin. Color to be Maple or Cedar as approved by the Engineer.

All three (3) coats shall be shop painted. All paints shall be applied when the ambient air temperature is forty five (45) degrees Fahrenheit (F°). And rising and when surfaces to be painted are moisture free. No painting will be allowed below the minimum ambient air

temperature. In addition, no painting will be allowed below the temperature at which moisture will condense on surfaces.

Recycled plastic lumber slats shall be internally reinforced or externally supported with additional steel bar and channel supports. The Contractor shall submit shop drawings showing all external supports if non-reinforced plastic lumber is used. Both types of plastic lumber shall meet the requirements specified below.

Recycled plastic lumber slats (without reinforcement) shall comply with or be tested in accordance with provisions of the following:

ASTM D6108	Standard Test Method for Compressive Products of Plastic and Shapes
ASTM D6109	Standard Test Method for Flexural Properties of Unreinforced and Reinforced Plastic Lumber
ASTM D6111	Standard Test Method for Bulk Density and Specific Gravity of Plastic Lumber and Shapes by Displacement
ASTM D6112	Standard Test Methods for Compressive and Flexural Creep and Creep Rupture of Plastic Lumber and Shapes
ASTM D6117	Standard Test Methods for Mechanical Fasteners in Plastic Lumber and Shapes
ASTM D1248	Standard Specifications for Polyethylene Plastics

Composition and mechanical properties shall be as follows:

Minimum Recycled Content	90%
Minimum High Density Polyethylene	70%
Maximum Percentage of Materials other than Polyolefins	5%
Minimum Specific Gravity (ASTM D6111)	0.02 lbs-in ³
Minimum Flexural Modulus (ASTM D6109)	85,000 psi
Minimum Nail Pull-out Strength (ASTM D6117)	700 lbs

Flame Spread, Class C or better, tested in accordance with ASTM E84.

Coefficient of Thermal Expansion (ASTM D6341), in the range of -10°C to 30°C, shall not exceed $70 \times 10^{-6}/^{\circ}\text{F}$.

The City reserves the right to independently test samples of slats from the job site. Random samples must be supplied to New York City Department of Parks and Recreation (NYCDPR)

for identification, at the request of the Engineer. Should the slats provided on the job site not be as previously approved, the Contractor shall replace all the incorrect slat lumber at no extra cost to the City.

Reinforced Plastic Lumber: Reinforced plastic slats shall be precision machined to receive the internal steel support bars and allow expansion and contraction of the slats, such as Second Site Systems slats, Patent No. 5,660,907, as manufactured by Victor Stanley, Inc., Dunkirk, MD, or approved equal. The slats, with supports on minimum forty six inch (46") centers and a one and one-half inch by one-quarter inch (1-1/2" x 1/4") steel support strap midway between the legs, shall be capable of bearing

a five hundred pound (500 lb.) load for a minimum twenty four hours (24 hrs.) with a maximum deflection of one-quarter inch (1/4") with the weight in place and one-sixteenth inch (1/16") with the weight removed.

The different coefficients of expansion require sufficient play in the slot and spacing of fasteners to prevent cracking and splitting. Internal steel reinforcement bars shall be made of A36 electric furnace mild steel from recycled steel scrap. Steel dimension shall be one-quarter inch by one inch (1/4" x 1"), secured with stainless steel set screws, countersunk, with the resulting cavity filled with recycled plastic plugs.

The steel bars shall be hot dipped galvanized and powder coated to match the color of the recycled plastic lumber slats.

Fabrication Tolerances: Ends shall be smooth with clean cuts, cross-sections shall not have voids greater than 1/2" dia. Voids of 1/2" dia. or less shall be filled with a matching color of silicone caulk, as per manufacturer's specifications. All edges shall be eased. Maximum variation from flat surface across section shall be 1/8".

Delivery and Storage: Keep materials protected at all times against exposure to extreme heat or impact. All material shall be bundled and fully supported during shipping and storage to prevent creep. Any lumber that is damaged or excessively scratched will be rejected and replaced with new. All slat material must be straight and true when bolted to the standards.

Hardware: Bolts, locknuts, and washers used to secure slats to standards shall be stainless steel. Type and dimensions of all bolts, nuts, and washers shall be as indicated on the plans. Anchor bolts used to secure the benches to pavements may be either stainless steel or hot-dipped galvanized steel. Threads of anchor bolts shall have the ends upset after installation of nuts so as to render the connection vandal resistant.

Concrete: Concrete for slabs or footings shall be as per the materials and methods of construction of Divisions II and IV of NYCDOT Standard Highway Specifications, dated August 01, 2015, and shall be of the dimensions indicated on the plans.

PK 242R-A.5. ASSEMBLY AND INSTALLATION: Benches shall be pre-assembled before being installed in their final location and properly secured in place by anchor bolts drilled into concrete footings or slab, as indicated on the plans.

PK 242R-A.6. SUBMITTALS: Shall be submitted in accordance with the requirements of the **General Conditions, Section 1.06**, of the Standard Highway Specifications.

PK 242R-A.7. Shop Drawings: The Contractor shall submit shop drawings showing all additional steel supports if unreinforced plastic lumber slats are proposed.

Foundry Certificates: Certifying Ductile Iron used in bench standards shall be submitted. The certificate shall be on foundry letterhead, dated and signed by the manufacturer with the Contract No., Contractor name, and Class of Ductile Iron provided.

Sample: The Contractor shall submit a twelve inch (12") sample of the recycled plastic lumber slat for surface and color approval. Required test results shall be submitted for unreinforced recycled plastic lumber slats.

Paint Substitution: A written request for any paint substitution must be submitted to the Engineer. The Contractor shall submit manufacturer's Data Sheets and installation instructions for approval of any proposed as-equal product no less than two (2) weeks prior to application.

PK 242R-A.8. EXTRA MATERIALS: The Contractor shall furnish (supply and deliver only, not install) extra materials and deliver to NYCDPR Borough Maintenance and Operations (M. &O.) as follows:

Fifteen (15) - Two inch (2") x three inch (3") (Nominal Size) by eight foot (8') length Reinforced Recycled Plastic Lumber Bench Slats per this specification, undrilled.

The above materials shall be delivered before Final Inspection to the Sector Park and Recreation Manager (P.R.M.) or Borough Foreman of Mechanics only, and a signed receipt from M. & O. shall be submitted to the Engineer to acknowledge M. & O. receipt of the aforementioned materials.

PK 242R-A.9. MEASUREMENT AND PAYMENT: The quantity of BENCH, TYPE 'A' W/ REINFORCED RECYCLED PLASTIC LUMBER (R.P.L.) SLATS to be paid for under this Item shall be the number of LINEAR FEET of each type, measured in place along the top slat, installed in accordance with the plans, specifications, and directions of the Engineer.

PK 242R-A.10. PRICE TO COVER: The price bid shall be a unit price per LINEAR FOOT of each type bench furnished and installed and shall include the cost of all labor, materials, equipment, insurance and incidentals necessary to complete the work, including recycled plastic lumber (R.P.L.) slats, steel supports, hardware, submittals, and all finishes, in accordance with the plans and specifications, to the satisfaction of the Engineer.

Payment with be made under:

Item No.	Item	Pay Unit
PK-242R-A	BENCH, TYPE 'A' WITH REINFORCED RECYCLED PLASTIC LUMBER SLATS	L.F.

SECTION PK-243 CONCRETE CURB

PK 243.1. WORK: Under this Item, the Contractor shall construct CONCRETE CURB and footings of the types shown on the plans or to match existing curbs, in accordance with the plans, specifications, and directions of the Engineer.

PK 243.2. MATERIALS: Except as otherwise provided for herein, the materials and methods of construction shall meet the requirements corresponding Sections of Divisions II and IV of NYCDOT Standard Highway Specifications, dated August 01, 2015.

Cement: Air Entraining Portland Cement shall comply with the American Society for Testing and Materials (ASTM) Specification for Portland Cement, Designation C150.

Concrete: Concrete shall conform to New York City Department of Transportation (NYCDOT) Class B-32, Type IIA, air entrained and moderate sulphate resistant. The batch shall contain a minimum of six (6) bags of cement per cubic yard, a one and one-half (1 1/2") to four (4") inch slump, and compressive strength of 3,200 psi. Large aggregate shall be limited to one (1") inch.

Steel Bar Reinforcement: Reinforcement shall meet the requirements of the applicable paragraphs of Section "B", the New York City Building Code and the latest ASTM specification for Deformed and Plain Billet- Steel Bars for Concrete Reinforcement", Designation A-615 and in accordance with the item "Steel Bar Reinforcement". Reinforcement shall be of the sizes and dimensions shown on the plans.

Bond Breaker: If bituminous fiber material is used, a bond breaker such as one-half inch (1/2") wide polyethylene tape or five-eighths inch (5/8") diameter expanded polyethylene foam backer rod shall be installed as recommended by the manufacturer. A bond breaker will not be required for a premolded foam joint, but sealant is always required.

Sealant: Prepared expansion joints shall be coated with a primer followed by installation of a bond breaker and a self-leveling two-component polyurethane-based elastomeric sealant. The Contractor shall apply Sikaflex 429 primer with Sikaflex - 2C, SL sealant, or Sonneborn 733 primer with Sonolastic SL 2 sealant or approved equal. Color of sealant shall be concrete gray. Asphalt cement will not be approved as a sealant.

Sikaflex products are manufactured by Sika Corp., Lyndhurst, NJ. Sonolastic products are manufactured by Sonneborn and Chem Rex, Inc., Shakopee, MN.

Expansion Joint: The expansion joint material shall be a premolded bituminous fiber joint filler as specified in Section "B" or an approved equal.

PK 243.3. METHOD OF CONSTRUCTION: Curb shall be constructed in independent sections and shall have smooth plane ends separated by expansion joints of the size shown on the standard details. Steel bar reinforcement between expansion joints shall be secured to chairs of the proper height to hold them in position while concrete is poured. Distance between supporting chairs shall not greater than five (5') feet apart. Reinforcing bars at expansion joints shall be bent to the horizontal and the ends wrapped with tar paper held by duct tape.

When fence posts are to be erected in concrete curb, sleeves shall be installed in the correct location, where shown on the plans. Sleeves shall be structurally rigid, cut to the required lengths and firmly set in the form in a vertical position.

Care shall be taken when installing curbs in accordance with the specifications and Contract Drawings , and "Tree Work" shall be followed. In addition, where tree roots of one (1") inch or greater are encountered, or if directed by the Director of Landscape Construction or his designated representative, the New York City Department of Parks and Recreation (NYCDPR) Standard Detail for Root Bridging shall be used.

All forms shall be set true to line and grade and held rigidly in position. They shall be either of metal or of acceptable planed and matched lumber, and of such construction that a smooth surface shall be provided. After the forms are erected and reinforcing steel is set in place, all contact surfaces within forms shall be moistened. Concrete shall be placed in horizontal layers of uniform thickness, with each layer thoroughly consolidated before placement of the next layer. Thickness of each layer shall not exceed eighteen (18") inches with reinforced members. Stiff concrete mixes (low slump) shall be consolidated either by hand tools or by mechanical vibrators. The concrete shall be worked thoroughly around the reinforcement and around the pipe sleeves. In the use of internal vibrators, care shall be taken to avoid separation of aggregate and to avoid hitting the forms sufficiently to cause damage. Exposed concrete surfaces shall have a float finish. Surfaces shall be finished smooth and true by means of wooden or steel floats and have edges, including those of joints, rounded or chamfered.

Forms shall be left in place for a minimum of three (3) days or until the concrete has set sufficiently so that, in the opinion of the Engineer, they can be removed without damage to the curbing. The curbing shall immediately upon removal of the forms be wetted and rubbed down to a smooth and uniform surface by means of carborundum or other abrasive blocks. For this work, a competent and skilled finisher shall be employed. The Contractor shall do all the necessary work to join new curb to existing in a neat and workmanlike manner to the satisfaction of the Engineer.

PK 243.4. CURB FOOTINGS: Curb footings shall be of the same concrete as the curbs and shall be constructed as shown on the details. Concrete footings shall be installed on all curb ends and corners with concrete forming tubes of the proper diameter and cut to the required lengths.

PK 243.5. PROTECTION: The Contractor shall protect the curbing and keep it in first class condition until the completion of his operation at the site. Any curbing which is damaged at any time previous to the final acceptance of the work shall be removed and replaced with satisfactory curbing at the Contractor's expense.

PK 243.6. MEASUREMENT AND PAYMENT: The quantity of CONCRETE CURB to be paid for under this Item shall be the number of CUBIC YARDS of curbs and footings constructed and incorporated in the work, in accordance with the plans, specifications, and directions of the Engineer.

PK 243.7. PRICE TO COVER: The price bid shall be a unit price per CUBIC YARD of Concrete Curbs and footings constructed and incorporated in the work complete, and shall include the cost of furnishing all labor, materials, equipment, insurance and incidental expenses necessary to complete the work, including expansion material, sealant, tar paper, and steel bar reinforcement, all in accordance with the plans and specifications, to the satisfaction of the Engineer.

Excavation shall be paid for under 6.02 AAN

Payment with be made under:

Item No.	Item	Pay Unit
PK-243	CONCRETE CURB	C.Y.

SECTION PK-257
METAL TRASH RECEPTACLE- DECORATIVE

PK257.1. WORK: Under this Item, the Contractor shall furnish and install Metal Trash Receptacle Decorative in accordance with the plans, specifications and directions of the Engineer. The capacity of the receptacle shall range between 32 and 36 gallons.

PK257.2. MATERIALS: Metal Trash Receptacle shall be an extra heavy duty receptacle, with side door, of vertical steel bar design, primed with zinc rich epoxy or iron phosphate, then finished with polyester powder coating. All welding shall be continuous and ground smooth before coating. The color shall be either green or black as selected by the Designer.

Liner shall be the standard supplied plastic or fiberglass basket. Liner shall have a hole drilled at bottom to allow for drainage. Decorative trash receptacle shall be manufactured by Victor Stanley, Inc., Dunkirk, MD; DuMor Inc., Mifflintown, PA; Custom Fabrication, Inc., Harpursville, NY; Keystone Ridge Designs, Butler, PA; or approved equal.

Metal Trash Receptacle - Decorative	Victor Stanley Ironsites Series	Du Mor Site Furnishings	Custom Fabrication	Keystone Ridge Designs
Model No.	SD-42	157-32-25BT	CFTR-003-02	MT3D-32
Capacity	36 gal.	32 gal.	32 gal.	32 gal.
Weight	280 lbs.	288 lbs.	205 lbs.	250 lbs.
Vert. Steel Straps	3/8" x 1"	1/4" x 1 1/2"	3/8" x 1"	3/8" x 1" and 3/8" x 2"
Height	41 3/4"	40"	37 1/2"	37 1/2"
Top Diam.	28"	31 1/8"	28 1/2"	31 5/8"
Bottom Diam.	19"	26 13/16"	23"	25 1/2"
Plastic/Fiberglass Liner	Required	Required	Required	Required

PK257.3. INSTALLATION: Contractor shall install trash receptacle as per manufacturers' instructions. Location of trash receptacle shall be determined by the Engineer.

PK257.4. MEASUREMENT: For EACH Metal Trash Receptacle- Decorative furnished and installed in accordance with the Plans and Specifications, the Contractor shall receive the Unit Price Bid.

PK257.5. PRICE TO COVER: The price bid shall be a unit Price for EACH Metal Trash Receptacle - decorative installed complete and shall include the cost of furnishing all labor, materials and equipment, insurance and incidentals necessary to complete the work including anchoring receptacle to pavement and providing liner, all in accordance with the Plans and Specifications to the satisfaction of the Engineer.

Payment with be made under:

Item No.	Item	Pay Unit
PK-257	METAL TRASH RECEPTACLE- DECORATIVE	EACH

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S - PAGES

SPECIAL PROVISIONS

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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SPECIAL PROVISIONS

A. LINES AND GRADES. The Contractor shall furnish lines and grades in accordance with Section 1.06.27 of the Standard Highway Specifications, except that survey controls established for this project may no longer exist and the Contractor shall be required to re-establish the survey control information using official Borough Survey Control Monuments and Bench Marks, where they exist. The Contractor shall check with Topographic Section of the Borough President's Office as to the reliability and accuracy of the data to be used for lines and grades.

B. SPECIFIC TRAFFIC STIPULATIONS. Under this contract, the Contractor shall perform the work in strict accordance with the requirements of Section 6.70 in the Standard Highway Specifications, specific traffic stipulations as called for on the Contract Drawings, OCMC Traffic Stipulations attached to the end of these Special Provisions, and the directions of the Engineer. In case of a conflict, the Engineer's decision shall be final.

In addition, the cost of compliance with requirements of the OCMC Traffic Stipulations, unless otherwise provided for, shall be deemed included in the prices bid for all scheduled items.

C. HOLIDAY CONSTRUCTION EMBARGO. A special Holiday Construction Embargo shall be in effect on the Friday of the week preceding Thanksgiving Day week from 6:00 AM to 11:59 PM and again from the Monday of Thanksgiving Day week from 6:00 AM through January 2, at 11:59 PM. Roadway and sidewalk construction activities will be restricted during the embargo period on the streets listed below*.

Any permits issued prior to the date of this notice, for work during this embargo period on the streets listed below which do not already have the permit stipulation "410" are hereby suspended for the period noted above. All permittees must comply with this embargo unless a special waiver is granted by OCMC. Waiver requests must be filed at least thirteen days before Thanksgiving Day, in the Permit Office by filing a "Request for Roadway/Sidewalk Permits During Embargo Periods" and submitting supporting documentation. Waiver requests should only be submitted for critical reasons for a specific project.

-
- * Please note that this embargo only applies to NYCDOT construction permits.
 - * List of street and maps of the affected locations are available by borough on the Department of Transportation's website at:
<http://www.nyc.gov/html/dot/html/motorist/trafalrt.shtml>

If a waiver is granted, the applicant will be notified so they can apply for the approved permits. Waivers **are not** required for ongoing Building Construction Activity Permits which already include the "410" permit stipulation. Waiver request forms may be obtained at any Permit Office or on the Department of Transportation's website at: <http://www.nyc.gov/html/dot/downloads/pdf/holidayembapp.pdf>

Prior to this embargo period all necessary measures must be taken so that all roadways and sidewalks are in proper condition to allow for the expeditious and safe movement of vehicular, bicycle and pedestrian traffic. Tool carts, cable reels, containers, and material stored on roadways must be removed during the embargo period.

The opening of utility access covers is prohibited on any of the streets noted below between the hours of 6:00 AM and midnight unless the utility or Contractor files for an Emergency Authorization Number as required by section 2-07 of the Department of Transportation's Highway Rules. The planned opening of utility access covers may occur during the hours of 12:01 AM and 5:59 AM where no authorization number is required.

Temporary restoration of the streets and sidewalks and removal thereof, if required for the Holiday Embargo period, will be paid for under the appropriate scheduled items.

No extension of time due to the shutdown period will be granted to the Contractor for completion of the work.

D. DISPOSAL OF EXCESS EXCAVATED MATERIAL. All excess excavated material, with the exception of contaminated material, shall become the property of the Contractor and shall be properly disposed of away from the site, at the Contractor's expense. Contaminated material shall be disposed of separately in accordance with contract requirements.

E. DPR CONSTRUCTION PERMITS. are required for all work on parkland or on sidewalks adjacent to parks or other areas maintained by DPR.

F. CONTRACT ITEMS THAT INCLUDE BACKFILL AS A PART OF THEIR WORK. The following shall pertain to all contract items that have backfill as a part of their work: Backfilling shall comply with Subsection 4.11.3 of the Standard Specifications and no additional payment will be made for any Highway or Street Lighting work item requiring Contractor to furnish additional fill material to meet these requirements when backfilling.

G. SCHEDULING PRESENTATION. The Contractor shall submit construction schedule in the form of a bar chart using "Microsoft Project 2010", or in an approved equivalent program which shall be directly and fully translatable into Microsoft Project 2010 format, within seven days of the initial Pre-Construction Meeting. Each bar in the chart shall show dates the Contractor plans to start and complete each construction activity after the initial Pre-Construction Meeting. Bar chart shall show the order and interdependence of all activities necessary to complete the work and the sequence in which activity is to be accomplished as planned by the Contractor and in accordance with all subcontractors or suppliers whose work shall be shown on the bar chart. The Contractor shall submit the bar chart for the Engineer's review and revise it, if required, until approved by the Engineer.

The Contractor shall submit weekly progress status update reports or as otherwise directed by the Engineer. The Contractor shall submit updated bar chart every month. The revised bar chart shall be made in the same form and detail as the original submittal and shall be accompanied by an explanation of the reasons for the revisions all of which shall be subject to approval by the Engineer.

H. ACCELERATED PROJECT SCHEDULE AND COMBINATION OF STAGES. Contractor shall plan and/or stage its work schedule using all hours/days available. Contractor is advised that all applicable unit prices shall include, for the purpose of this contract, all overtime costs, premium time costs, shift differentials required to complete construction within the specified "Time(s) of Completion" stipulated in this contract.

Contractor shall be permitted to accelerate this project, to combine stages and/or work sequences. Any such changes shall be shown in the construction schedule, to be furnished in accordance with the General Provisions of the Standard Specifications and the above "SCHEDULING PRESENTATION" Article, and shall be submitted for approval of the Engineer.

I. NO EXTENSION OF TIME FOR WINTER SHUT-DOWN. Where the Contractor's approved work schedule for installing sidewalk, curb, roadway base and/or pavement falls within the winter period of December 1st through April 1st, the Contractor will NOT be granted an extension of time for completion of this contract due to the winter shut-down period, unless otherwise provided in Schedule A.

J. PRIVATE UTILITY HARDWARE ADJUSTMENTS. will be performed by the owning utility company or its agent, at its expense. The Contractor shall notify the utility company 72 hours prior to start of work at each location where its hardware requires adjustment.

K. SURVEY MONUMENTS. When working in the vicinity of survey monument the Contractor shall hand excavate per Item 8.02 A and 8.02 B at City Survey Monuments, for a distance of five (5) feet around each monument, as directed by the Engineer.

L. RESTORATION OF ADJACENT AREAS. The Contractor shall be required to remove all form work. In planting strip areas, the Contractor shall be required to restore areas damaged as a result of his operations, to the satisfaction of the Engineer, with sod. The Contractor shall also, as directed by the Engineer, make safe adjacent areas to his work, such as: restoring missing or damaged pavement markings that were removed or damaged as a result of the Contractor's operations (as per requirements of Section 6.44 in the Standard Specifications); resetting granite blocks in tree pits; and, applying asphaltic concrete mixture (Item 4.02 CB) where badly broken sidewalk or curb may create a dangerous condition just outside his area of operation, where and when directed by the Engineer.

All restoration work shall be done to the satisfaction of the Engineer.

M. THE CONTRACTOR IS NOTIFIED that for use of City water under this project the Contractor shall be required to obtain all necessary permits from the Department of Environmental Protection, at no cost to the Contractor in accordance with the NYC Department of Environmental Protection, Standard SEWER AND Water Main Specifications, dated July 1, 2014, Section 12.04 "TEMPORARY USE OF CITY WATER ON CONSTRUCTION PROJECTS."

N. CROSSING GUARDS. The Contractor is notified that wherever the Item No. "6.52" and words "flagger" and "flagperson" are used in the Contract Drawings, the OCMC Traffic Stipulations and Section 6.70 of the Standard Highway Specifications it shall mean 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.

O. FUEL COST. The Contractor is notified that the fuel cost per gallon used in the formula under Sub-Article 26.2.8 of the Standard Construction Contract for Extra Work will be derived from the fuel price index for the United States East Coast published weekly by the United States Energy Information Administration ("USEIA"), and available on its website at <http://www.eia.gov/petroleum/gasdiesel/>. The USEIA-published cost per gallon for the applicable fuel on the East Coast for the week in which the first day of each calendar quarter during the contract term occurs (i.e., January 1st, April 1st, July 1st and September 1st) will be used in the reimbursement formula

for all Extra Work invoiced that was performed during that calendar quarter. Should the USEIA stop publishing this fuel price index, the fuel cost per gallon will be determined by reference to a substitute index to be agreed upon by the Contractor and the City.

P. START OF CONTRACT WORK. The Contractor is notified that a Notice To Proceed (NTP) date will be issued for work to commence within 21 to 30 Days of Contract Registration.

Q. PRICES TO INCLUDE. No direct payment will be made for costs incurred in complying with the foregoing Special Provisions, unless otherwise provided. Said costs will be deemed to have been included in the prices bid for all the scheduled contract items.

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Department of Transportation

POLLY TROTTENBERG, Commissioner

OCMC TRAFFIC STIPULATIONS

November 5, 2015

OCMC FILE NO: BNEC-15-654
 CONTRACT NO: HWPLZ011K
 PROJECT: RECONSTRUCTION OF ZION PLAZA

LOCATION(S): EAST NEW YORK AVENUE BETWEEN GRAFTON STREET AND SARATOGA AVENUE
 PITKIN AVENUE BETWEEN GRAFTON STREET AND SARATOGA AVENUE
 LINCOLN PLACE BETWEEN EAST NEW YORK AVENUE AND HOWARD AVENUE
 LEGION STREET BETWEEN EAST NEW YORK AVENUE AND PITKIN AVENUE

PERMISSION IS HEREBY GRANTED TO THE NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION AND ITS DULY AUTHORIZED AGENT, TO ENTER UPON AND RESTRICT THE FLOW OF TRAFFIC AT THE ABOVE LOCATION(S) FOR THE PURPOSE OF CARRYING OUT THE ABOVE NOTED PROJECT, SUBJECT TO THE STIPULATIONS, AS NOTED BELOW:

1. 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 AS PUBLISHED BY THE BUREAU OF PERMIT MANAGEMENT AND CONSTRUCTION CONTROL.
- B. **BIKE LANES** – IF WORK IS IN OR AFFECTING A BIKE LANE, THE PERMITTEE MUST POST ADVANCE WARNING SIGNS 350 FEET AND 200 FEET PRIOR TO THE WORK ZONE STATING "CONSTRUCTION IN BIKE LANE AHEAD PROCEED WITH CAUTION", AND ALSO POST A SIGN AT THE WORK ZONE STATING "CONSTRUCTION IN BIKE LANE PROCEED WITH CAUTION". SUCH SIGNS SHALL BE ORANGE, 3' x 3', DIAMOND-SHAPED WITH 4" BLACK LETTERING. SIGNS SHALL BE POSTED IN ACCORDANCE WITH THE FEDERAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES [MUTCD].
- C. **BIKE SHARE STATIONS**: THE PERMITTEE SHALL NOT REMOVE, RELOCATE, DAMAGE OR DISRUPT THE OPERATION OF EXISTING BIKE SHARE STATIONS WITHOUT FIRST CONTACTING NYC BIKE SHARE AT 855-245-3311 FOR THEIR REQUIREMENTS PRIOR TO COMMENCING WORK.
- D. **CITYBENCH**: THE PERMITTEE SHALL NOT REMOVE, RELOCATE, DAMAGE OR DISRUPT AN EXISTING CITYBENCH WITHOUT FIRST CONTACTING NYC DOT AT 212-839-6569, OR VIA EMAIL AT CITYBENCH@DOT.NYC.GOV PRIOR TO COMMENCING WORK.
- E. **PROTECTION OF NYC DEP GREEN INFRASTRUCTURE**: THE PERMITTEE SHALL TAKE PRECAUTION OF NYC DEP GREEN INFRASTRUCTURE IN THE RIGHT-OF-WAY. THE PERMITTEE MUST PROTECT NYC DEP GREEN INFRASTRUCTURE DOWNSTREAM OF THE WORK OR WITHIN FIVE (5) FEET OF THE WORK AREA. THE PERMITTEE MUST EMAIL NYC DEP AT SUSTAINABILITY@DEP.NYC.GOV FOR PROTECTION REQUIREMENTS PRIOR TO COMMENCING WORK. THE PERMITTEE IS RESPONSIBLE FOR RESTORATION OF DAMAGED NYC DEP INFRASTRUCTURE AS DIRECTED BY NYC DEP.
- F. **BUS STOPS** – THE PERMITTEE SHALL PROVIDE WRITTEN NOTICE TO NYC DOT OCMC AND NEW YORK CITY TRANSIT (NYCT) A MINIMUM OF FIVE (5) WEEKS IN ADVANCE FOR LANE/STREET CLOSURES THAT AFFECT BUS ROUTES/BUS STOPS.
- G. **STREET LIGHTS / TRAFFIC SIGNALS**: THE PERMITTEE SHALL NOT REMOVE OR RELOCATE EXISTING STREET LIGHTS OR TRAFFIC SIGNALS WITHOUT FIRST OBTAINING APPROVAL FROM NYCDOT STREET LIGHTING / TRAFFIC SIGNALS UNIT.
- H. **TRAFFIC CAMERAS, DETECTION/COMMUNICATION EQUIPMENT**: IF AT ANY TIME DURING THE APPROVED WORK, THE PERMITTEE ENCOUNTERS TRAFFIC SURVEILLANCE CAMERAS, DETECTION EQUIPMENT OR ANY TYPE OF COMMUNICATION EQUIPMENT (WIRELESS OR HARD-WIRED) ON ANY NYC DOT FACILITY, THAT IS NOT INCLUDED ON THE DESIGN/BUILD DRAWINGS, THE PERMITTEE SHALL IMMEDIATELY NOTIFY NYC DOT TRAFFIC MANAGEMENT BY PHONE AT 718-433-3390 OR 718-433-3340 AND VIA EMAIL AT TMC@DOT.NYC.GOV AND AHEAD DIRECTION PRIOR TO CONTINUING WORK.
- I. **METERS** – THE PERMITTEE 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 PERMITTEE SHALL BE REQUIRED TO OBTAIN SEPARATE PERMITS RELATED TO TEST PITS.
- K. **TEMPORARY PARKING REGULATIONS/PAVEMENT MARKINGS** – THE PERMITTEE IS REQUIRED TO INSTALL, MAINTAIN AND REMOVE ALL NECESSARY TEMPORARY PARKING AND REGULATORY SIGNS AND PAVEMENT MARKINGS, AND RESTORE THEIR ORIGINAL CONDITION PER NYC DOT STANDARDS, PRIOR TO EXPIRATION OF THEIR PERMITS. THE PERMITTEE OR AGENCY PERFORMING PUBLIC OUTREACH SHALL POST AND MAINTAIN ADVISORY SIGNS A MINIMUM OF 48 HOURS PRIOR TO CHANGING EXISTING PARKING REGULATION SIGNS TO APPROVED TEMPORARY CONSTRUCTION PARKING REGULATION SIGNS. THE ADVISORY SIGNS SHOULD BE POSTED ON ALL POLES AND DRIVE RAILS ON THE SEGMENT AFFECTED, INDICATING THE DATE OF THE CHANGE, THE NEW REGULATIONS AND A TELEPHONE NUMBER TO OBTAIN MORE INFORMATION.
- L. **ACCESS TO ADJUTING PROPERTIES** – THE PERMITTEE SHALL COORDINATE ALL ACTIVITIES WITH ADJUTING PROPERTY OWNERS TO ENSURE ACCESS IS PROVIDED TO/FROM ENTRANCES/DRIVEWAYS AT ALL TIMES.

NYC Department of Transportation
 Bureau of Permit Management and Construction Control
 55 Water Street - 7th Floor, New York, NY 10041
 T: 212.839.9637 F: 212.839.8970
www.nyc.gov/dot

I. SPECIAL STIPULATIONS (CONTINUED)

- 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 ADJACENT PROPERTY OWNERS.
- O. **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.

II. MAINTENANCE AND PROTECTION OF TRAFFIC

CATCH BASIN WORK – STAGE 1A

A. EAST NEW YORK AVENUE BETWEEN GRAFTON STREET AND SARATOGA AVENUE

1. All work shall be performed from July 1st through August 31st of each year of the contract.
2. All work must be coordinated with nearby Brownsville Ascend Middle School.
3. Work hours shall be as follows: 10:00 AM to 3:00 PM, Monday to Friday
8:00 AM to 4:00 PM, Saturday
4. During catch basin work, during working hours, the Permittee shall provide and maintain a minimum of one (1) 12-foot lane for two-way traffic with shared bike lane via the use of flaggers at each end of the work zone, while also providing a minimum 5-foot clear path on the sidewalk for pedestrian access. After working hours, the Permittee shall restore the full width of the sidewalk and restore all travel lanes to traffic.
5. While working in the intersection of East New York Avenue and Legion Street/Lincoln Place, the Permittee shall provide and maintain a minimum of one (1) 12-foot lane for two-way traffic via the use of flaggers at each end of the work zone on East New York Avenue, and a minimum of one (1) 11-foot lane for traffic on Lincoln Place. Legion Street is already fully closed to traffic and shall remain fully closed during construction. After working hours, the Permittee shall restore the full width of the intersection to traffic.

B. PITKIN AVENUE BETWEEN LEGION STREET/LINCOLN PLACE AND SARATOGA AVENUE

1. All work shall be performed from July 1st through August 31st of each year of the contract.
2. All work must be coordinated with nearby Brownsville Ascend Middle School.
3. All work shall be coordinated with NYCT Surface Operations as it relates to impacts to the existing bus stop on the north side of the roadway.
4. Work hours shall be as follows: 9:00 AM to 4:00 PM, Monday to Friday
5. During catch basin work, during working hours, the Permittee shall maintain a minimum of two (2) 11-foot lanes for traffic with shared bike lanes, while also providing a minimum 5-foot clear path on the sidewalk for pedestrian access. After working hours, the Permittee shall restore the full width of the sidewalk and restore all travel lanes to traffic.
6. While working in the intersection of Pitkin Avenue and Legion Street, the Permittee shall maintain a minimum of two (2) 11-foot lanes for traffic with shared bike lanes on Pitkin Avenue. Legion Street is already fully closed to traffic and shall remain fully closed during construction. After working hours, the Permittee shall restore the full width of the intersection to traffic.

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II. MAINTENANCE AND PROTECTION OF TRAFFIC (CONTINUED)

C. PITKIN AVENUE BETWEEN GRAFTON STREET AND SARATOGA AVENUE

1. All work shall be performed from July 1st through August 31st of each year of the contract.
2. All work must be coordinated with nearby Brownsville Ascend Middle School.
3. Work hours shall be as follows: 9:00 AM to 4:00 PM, Monday to Friday
8:00 AM to 4:00 PM, Saturday
4. During new curb and sidewalk work, the Permittee shall provide and maintain a minimum of two (2) 12-foot lanes for traffic (one (1) 12-foot lane for traffic in each direction) with shared bike lanes at all times.
 - a. During curb work, the Permittee shall maintain a minimum 5-foot clear path on the sidewalk for pedestrian access. During sidewalk work, the Permittee may fully close the north sidewalk while sending pedestrians to the south sidewalk during working hours only. After working hours, the Permittee shall provide a minimum 5-foot protected temporary walkway in the roadway adjacent to the north curb for pedestrian access.

ZION PLAZA CONSTRUCTION – STAGE 4

A. EAST NEW YORK AVENUE BETWEEN LINCOLN PLACE AND SARATOGA AVENUE

B. PITKIN AVENUE BETWEEN GRAFTON STREET AND SARATOGA AVENUE

1. All work shall be performed from July 1st through August 31st of each year of the contract.
2. All work must be coordinated with nearby Brownsville Ascend Middle School.
3. Work hours shall be as follows: 7:00 AM to 6:00 PM, Monday to Friday
8:00 AM to 4:00 PM, Saturday
4. During Zion Plaza construction work, the Permittee shall provide and maintain a minimum 5-foot clear path on the sidewalk for pedestrian access at all times.
5. All construction activity shall occur within the plaza area itself, with no impact on the roadways.

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.
- 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.

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II. MAINTENANCE AND PROTECTION OF TRAFFIC (CONTINUED)

CATCH BASIN WORK – STAGE 1B

A. EAST NEW YORK AVENUE BETWEEN LINCOLN PLACE AND SARATOGA AVENUE

1. All work shall be performed from July 1st through August 31st of each year of the contract.
2. All work must be coordinated with nearby Brownsville Ascend Middle School.
3. Work hours shall be as follows: 10:00 AM to 3:00 PM, Monday to Friday
8:00 AM to 4:00 PM, Saturday
4. During catch basin work, during working hours, the Permittee shall provide and maintain a minimum of one (1) 12-foot lane for two-way traffic via the use of flaggers at each end of the work zone, while also providing a minimum 5-foot clear path on the sidewalk for pedestrian access. After working hours, the Permittee shall restore the full width of the sidewalk and restore all travel lanes to traffic.
5. While working in the intersection of East New York Avenue and Legion Street/Lincoln Place, the Permittee shall provide and maintain a minimum of one (1) 12-foot lane for two-way traffic via the use of flaggers at each end of the work zone on East New York Avenue, and a minimum of one (1) 11-foot lane for traffic on Lincoln Place. Legion Street is already fully closed to traffic and shall remain fully closed during construction. After working hours, the Permittee shall restore the full width of the intersection to traffic.

B. LINCOLN PLACE BETWEEN EAST NEW YORK AVENUE AND HOWARD AVENUE

1. All work shall be performed from July 1st through August 31st of each year of the contract.
2. All work must be coordinated with nearby Brownsville Ascend Middle School.
3. Work hours shall be as follows: 10:00 AM to 3:00 PM, Monday to Friday
8:00 AM to 4:00 PM, Saturday
4. During catch basin work, during working hours, the Permittee shall maintain a minimum of one (1) 11-foot lane for traffic, while also providing a minimum 5-foot clear path on the sidewalk for pedestrian access. After working hours, the Permittee shall restore the full width of the sidewalk and restore all travel lanes to traffic.

NEW CURBS AND SIDEWALK WORK – STAGES 2 & 3

A. EAST NEW YORK AVENUE BETWEEN LINCOLN PLACE AND SARATOGA AVENUE

1. All work shall be performed from July 1st through August 31st of each year of the contract.
2. All work must be coordinated with nearby Brownsville Ascend Middle School.
3. Work hours shall be as follows: 9:00 AM to 4:00 PM, Monday to Friday
8:00 AM to 4:00 PM, Saturday
4. During new curb and sidewalk work, the Permittee shall provide and maintain a minimum of two (2) 11-foot lanes for traffic (one (1) 11-foot lane for traffic in each direction) at all times.
 - a. During working hours, the Permittee may fully close the north sidewalk while providing flaggers to assist crossing pedestrians. After working hours, the Permittee shall provide either a minimum 5-foot clear path on the sidewalk or a protected 5-foot clear temporary walkway in the roadway adjacent to the north curb for pedestrian access.

B. LINCOLN PLACE BETWEEN EAST NEW YORK AVENUE AND HOWARD AVENUE

1. All work shall be performed from July 1st through August 31st of each year of the contract.
2. All work must be coordinated with nearby Brownsville Ascend Middle School.
3. Work hours shall be as follows: 9:00 AM to 4:00 PM, Monday to Friday
8:00 AM to 4:00 PM, Saturday
4. During new curb and sidewalk work, the Permittee shall provide and maintain a minimum of one (1) 11-foot lane for traffic at all times.
 - a. During working hours, the Permittee may fully close the north sidewalk while providing flaggers to assist crossing pedestrians. After working hours, the Permittee shall provide either a minimum 5-foot clear path on the sidewalk or a 5-foot protected temporary walkway in the roadway adjacent to the north curb for pedestrian access.

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III. GENERAL NOTES (CONTINUED)

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 PERMITTEE'S START OF WORK ON ALL AFFECTED ROADWAYS IN THE IMPACTED CONTRACT AREA.
- E. THE PERMITTEE IS ADVISED THAT OTHER CONTRACTORS MAY BE WORKING IN THE GENERAL AREA DURING THE TERM OF THIS STIPULATION. IN WHICH EVENT, THE PERMITTEE MAY REQUIRE MODIFICATIONS BY THE OCMC-STREETS.
- F. THE PERMITTEE IS NOT AUTHORIZED TO ENTER, OCCUPY OR USE ANY PUBLICLY-OWNED OR PRIVATELY OWNED, NON-PAVED, LANDSCAPE OR NON-LANDSCAPED LOCATION WITHOUT SPECIFIC WRITTEN PERMISSION. WHEN THE LOCATION IS WITHIN THE RIGHT-OF-WAY OF A LIMITED-ACCESS ARTERIAL HIGHWAY, WRITTEN APPROVAL FROM THE NYCDOT OCMC-HIGHWAYS IS REQUIRED. WHEN THE LOCATION IS WITHIN THE RIGHT-OF-WAY OF A PUBLIC STREET OR PUBLIC PARK, WRITTEN APPROVAL FROM THE NEW YORK CITY DEPARTMENT OF TRANSPORTATION OR NEW YORK CITY DEPARTMENT OF PARKS AND RECREATION IS REQUIRED. WHEN THE LOCATION IS WITHIN THE RIGHT-OF-WAY OF ANY OTHER JURISDICTION SUCH AS PRIVATE PROPERTY, STATE, FEDERAL ETC., IT IS THE PERMITTEE'S RESPONSIBILITY TO DETERMINE THE PROPERTY OWNER AND OBTAIN THE WRITTEN APPROVAL.
- G. THE PERMITTEE SHALL ADHERE TO THE NYCDOT BUREAU OF BRIDGES' SPECIAL PROVISIONS FOR LANDSCAPE PROTECTION, MAINTENANCE AND RESTORATION, ITEMS 1.18.15 THROUGH 1.18.19, WHENEVER AND WHEREVER ANY OF THE PERMITTEE'S ACTIVITIES OCCUR WITHIN A LIMITED ACCESS ARTERIAL HIGHWAY RIGHT - OF - WAY.
- H. NO DEVIATION OR DEPARTURE FROM THESE STIPULATIONS WILL BE PERMITTED WITHOUT THE PRIOR WRITTEN APPROVAL FROM THE OCMC-STREETS. REQUEST FOR SUCH MODIFICATIONS SHALL BE SUBMITTED TO THE OFFICE OF THE OCMC-STREETS, NEW YORK CITY DEPARTMENT OF TRANSPORTATION, A MINIMUM OF TWENTY (20) DAYS IN ADVANCE FOR CONSIDERATION.
- 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 PERMITTEE 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.
- K. THE PERMITTEE SHALL BE RESPONSIBLE FOR IDENTIFYING HIS CONSTRUCTION SIGNAGE. THE IDENTIFICATION SHALL INCLUDE THE PERMITTEE'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.


 NICOLAS DAGHER, P.E.
 EXECUTIVE DIRECTOR
 OCMC


 DUANE C. BARRA
 PROJECT MANAGER
 OCMC-STREETS

(NO TEXT ON THIS PAGE)

THE CITY OF NEW YORK DEPARTMENT OF SANITATION

Interpretive Memorandum # 2

The Contractor is notified that the following Department of Sanitation (DOS) Interpretive Memorandum # 2 does not guarantee that a temporary stockpile location will be approved for this project. In addition, the Department of Design and Construction (DDC) reserves the right to rescind approval for any temporary stockpile location at any time. No payment will be made to the Contractor if either a temporary stockpile location is not approved for this project, or DDC rescinds an approval for any reason.



THE CITY OF NEW YORK Department of Sanitation

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for Legal Affairs

Bureau of Legal Affairs
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Department of Sanitation Rules and Regulations Governing Non-Putrescible Solid Waste Transfer Stations

INTERPRETIVE MEMORANDUM # 2 February 14, 1995

*Subject: Temporary Storage and Processing of Construction and Demolition Debris
by New York City Agency Contractors*

Contractors performing construction work for New York City agencies may be required to excavate dirt, concrete, rock, gravel and similar materials ("construction materials") from a contract site or to remove from a contract site construction materials resulting from construction, demolition, alteration, repair or renovation of structures, streets or buildings. On street construction projects, construction materials required to be excavated or removed may also include asphalt. The purpose of this Interpretive Memorandum is to (a) define the circumstances under which the Department of Sanitation (the "Department") will not deem its Rules and Regulations Governing Non-Putrescible Solid Waste Transfer Stations (the "Rules") to apply to the temporary storage, processing and/or stockpiling (collectively, "stockpiling") of such construction materials and (b) the procedure for ensuring such exemption. It is the responsibility of the contracting agency to oversee its contractors' compliance with the Rules and with this Interpretive Memorandum.

1. When No Transfer Station Permit is Required

Where a City contractor has:

- (a) set aside an area of a contract site for stockpiling construction materials excavated from and/or intended for that site; or
- (b) received written approval from the contracting agency for an off-site stockpiling location,

the Department will not deem such stockpiling location a transfer station and will not require the contractor to obtain a transfer station permit so long as:

- (c) no construction materials or debris from off the contract site are received at the designated location for subsequent transfer to another location (other than the contract site); and
- (d) the temporary stockpiling location is clearly described as such in the contract or clearly approved by the construction agency and designated as such in writing to the Department by the agency; and
- (e) the construction agency represents in writing to the Department that such agency will monitor the temporary stockpiling location and ensure its clean-up and restoration pursuant to the procedures set out in this memorandum.



Help Reduce
New York's Waste.



Example: Street Construction Projects

As part of a contract for street construction, the contractor may be working at one end of a street and using an area at the other end of the street for the temporary stockpiling of construction materials. Both ends of the street are part of the construction contract site. In addition, the contractor may have leased an off-site location for temporary stockpiling of materials, which, following processing, will be reincorporated into the contract site, with some portion of the remainder designated for delivery to a Department disposal facility. Neither location will be regulated by the Department as a transfer station so long as the procedures set out in this memorandum are followed.

2. Procedure for Exception.

Upon a City construction agency's approval of any location to be designated as a temporary processing, storage or stockpiling area, that agency must determine that (a) its contract with the contractor provides for clean-up and restoration of such area by, for example, the contractor's posting of a restoration bond and/or by contractual set-off and (b) the agency has adequate procedures for monitoring the designated area to ensure that it does not violate the provisions set forth in this memorandum and that such location is cleaned up and restored at the completion of the contract work.

The City construction agency must submit an official letter to the Department acknowledging compliance with both (a) and (b) immediately above and representing that the agency will ensure the contractor's compliance. The letter to be submitted must be in substantially the following form, addressed to the Director, Bureau of Waste Disposal, Department of Sanitation, 125 Worth Street, Room 726, New York, NY 10013:

"The New York City Department of _____ (the "Agency")
has awarded a construction contract to _____ (Contractor)
_____ (the "Contractor") for work to be performed at _____ (Contract
Site) _____ .

a. This Agency has approved the following locations to be used by the Contractor for the temporary storage, processing and/or stockpiling of construction materials (the "Stockpiling Locations") excavated from the construction site or intended for the construction site:

b. The terms of the contract require the Contractor to clean up and restore the Stockpiling Locations, whether on or off the contract site, at or before the completion of the contract work.

c. This Agency assumes responsibility for the monitoring of Stockpiling Locations to ensure that only materials received from and/or intended for the construction site are stockpiled at such locations and we will enforce clean-up and restoration of such Locations at the end of their use for temporary stockpiling or at the termination of the contract, whichever occurs earlier, through restoration

bonding requirements and/or contractual set-off provisions such that the costs of clean-up and restoration will not become a charge to the Department or the City. "

3. When a Transfer Station Permit is Required

A transfer station permit will be required under any circumstances other than those outlined above. Except in the specifically defined circumstances set forth in this memorandum, any operator of a location or facility which receives, processes, stores or stockpiles construction and demolition debris or fill material for purposes of transfer to another location, including to a New York City Department of Sanitation facility, and whether or not under contract to the Department for the delivery of such materials, will be fully subject to the Department's transfer station rules and liable for enforcement for violations.

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), 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 SEWER AND WATER MAIN SPECIFICATIONS
- C. 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 1st, April 1st, July 1st and September 1st) will be used in the reimbursement formula for all **Extra Work** invoiced that was performed during that calendar quarter. Should the USEIA stop publishing this fuel price index, the fuel cost per gallon will be determined by reference to a substitute index to be agreed upon by the Contractor and the City.
- (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.

DATED: FEBRUARY 24, 2016

PROJECT ID.: HWPLZ011K

It is the Contractor's responsibility to secure an approved electrical contractor to perform all traffic signal work (if any). For list of approved electrical contractors, contact Mr. Michael R. LeFosse of New York City Department of Transportation at (718) 786-2236.

(NO ADDITIONAL TEXT)

B. REVISIONS TO THE STANDARD SEWER AND WATER MAIN SPECIFICATIONS

- (1) **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) N.Y.C. DEPARTMENT OF TRANSPORTATION

The Contractor shall notify Mr. Steve Galgano, P.E. Chief of Signal/Street Lighting Operations, 34-02 Queens Blvd., Long Island City, N.Y. 11101 at (718) 786-3550, at least seventy-two (72) hours prior to the start of construction.

- (2) **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 Traffic Stipulations identified in the maintenance of traffic requirements under Highway Contract No. HWPLZ011K.

- (3) **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) Within the limits of the highway reconstruction the restoration shall be accomplished and paid for in accordance with Highway Construction Plans, Details and Specifications for Highway Project ID. HWPLZ011K.
- (2) In street areas requiring water main work outside the limits of highway reconstruction (on Lincoln Place approximately 53 feet before the neckdown as shown on sheet 17 of 40 of the contract drawings) the restoration shall be as follows:

- (a) The permanent restoration over the **trench width and cutbacks only** shall consist of a top course of one and one-half (1-1/2) inches of asphaltic concrete wearing course on a base course of a minimum of four and one-half (4-1/2) inches of binder mixture, or a top course of one and one-half (1-1/2) inches of asphaltic concrete wearing course on a minimum of one and one-half (1-1/2) inches of binder mixture on a base course of a minimum of six (6) inches of high-early strength concrete, to match the existing pavement as directed by the Engineer.

- (3) The following requirements apply for paragraph (2) above only:

- (a) Before the top course is installed, an additional width of asphalt beyond the edge of new base course shall be saw-cut and removed from all edges of trenches to a depth to accommodate the specified top course and the entire area restored. This additional removal shall be in accordance with paragraph (b) below.

- (b) Pavement excavation along with saw cutting of pavements for sewer and water main trenches shall be in accordance with **Section 71.21 - Pavement Excavation** of the Standard Sewer And Water Main Specifications.
- (c) At locations requiring the installation of a concrete base course, a reflective cracking membrane shall be installed over joints prior to restoration, the cost of which shall be deemed included in the prices bid for all pavement restoration items. Additionally, appropriate pavement keys as described below shall be used.
- (d) Pavement keys **Type B-1** shall be used to insure a desired four (4) inch curb reveal (two and one-half (2-1/2) inch absolute minimum). Pavement key **Type A** shall be used in all intersections. Both keys are to be per Bureau of Highways Operations Specifications and Standard Details of Construction.
- (e) Unless otherwise specified, the cost for Proctor analyses, in-place soil density tests, tack coating, eradication of temporary roadway markings, stripping or milling of pavement keys and adjustment of city-owned castings for all roadway work shall be deemed included in the prices bid for all pavement restoration items.
- (f) Payment for placement of temporary pavement marking shall be made under Item No. 6.49 - TEMPORARY PAVEMENT MARKINGS (4" WIDE).
- (g) Payment for removal of existing pavement markings shall be made under Item No. 6.53 - REMOVE EXISTING LANE MARKINGS (4"WIDE).
- (h) Payment for placement of permanent pavement marking with thermoplastic reflectorized pavement markings (crosswalk and lane dividers) shall be made under Item No. 6.44 - THERMOPLASTIC REFLECTORIZED PAVEMENT MARKINGS (4" WIDE).
- (i) Payment for pavement restoration shall be made under the following items:

<u>Item No.</u>	<u>Item</u>	<u>Payment Description</u>
4.02 AB-R	Asphaltic Concrete Wearing Course, 1-1/2" Thick	(For asphaltic concrete wearing course top course when <u>no</u> overlay is required.)
4.02 CB	Asphaltic Concrete 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.)

C. 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, Paragraph 13. Special Fittings:, Page 5;
Add the following to Paragraph 13:

The steel reducer shall have a length of seven (7) feet for every twelve (12) inches reduction in diameter.

END OF SECTION

This Section consists of five (5) pages.

NO TEXT ON THIS PAGE

EL - Pages

**SPECIFICATIONS FOR THE SPECIALTY
ELECTRICAL WORKS**

NOTICE

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

(NO TEXT ON THIS PAGE)

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(NO TEXT ON THIS PAGE)

**SECTION E 260500
(NOT A BID ITEM)
COMMON WORK RESULTS FOR ELECTRICAL**

PART 1 - GENERAL

1.1. SUMMARY

- A. Section Includes:
 - 1. Electrical equipment coordination and installation.
 - 2. Grout.
 - 3. Common electrical installation requirements.

1.2. COORDINATION

- A. Coordinate arrangement, mounting, and support of electrical equipment:
 - 1. To provide for ease of disconnecting the equipment with minimum interference to other installations.
 - 2. To allow right of way for piping and conduit installed at required slope.
 - 3. So connecting raceways, cables, wireways, cable trays, and busways will be clear of obstructions and of the working and access space of other equipment.
- B. Coordinate installation of required supporting devices in cast-in-place concrete, masonry walls, and other structural components as they are constructed.

PART 2 PRODUCTS

2.1. GROUT

- A. Nonmetallic, Shrinkage-Resistant Grout: American Society for Testing and Materials (ASTM) C 1107, factory-packaged, nonmetallic aggregate grout, noncorrosive, nonstaining, mixed with water to consistency suitable for application and a 30-minute working time.

PART 3 EXECUTION

3.1. COMMON REQUIREMENTS FOR ELECTRICAL INSTALLATION

- A. Comply with National Electrical Contractors Association (NECA) 1.
- B. Measure indicated mounting heights to bottom of unit for suspended items and to center of unit for wall-mounting items.
- C. Equipment: Install to facilitate service, maintenance, and repair or replacement of components of both electrical equipment and other nearby installations. Connect in such a way as to facilitate future disconnecting with minimum interference with other items in the vicinity.

D. Right of Way: Give to piping systems installed at a required slope.

PART 4 MEASUREMENT AND PAYMENT

No separate payment will be made for work under this Section. The cost of all work under this Section shall be deemed to be included in the cost of other electrical work associated with this project.

SECTION E 260519
LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES

PART 1 GENERAL**1.1 SUMMARY**

- A. This Section includes the following:
 - 1. Building wires and cables rated 600 V and less.
 - 2. Connectors, splices, and terminations rated 600 V and less.

1.2 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Field quality-control test reports.

1.3 QUALITY ASSURANCE

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in the New York City Electrical Code, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- B. Comply with New York City Electrical Code.

PART 2 PRODUCTS**2.1 CONDUCTORS AND CABLES**

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include the following:
 - 1. Alcan Products Corporation; Alcan Cable Division.
 - 2. American Insulated Wire Corp.; a Leviton Company.
 - 3. General Cable Corporation.
 - 4. Senator Wire & Cable Company.
 - 5. Southwire Company.
 - 6. AFC Cable Systems, Inc.
 - 7. Or an approved equivalent.
- B. Copper Conductors: Comply with NEMA WC 70.
- C. Conductor Insulation: Comply with NEMA WC70 for Types XHHW.

2.2 CONNECTORS AND SPLICES

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include the following:
 - 1. AFC Cable Systems, Inc.
 - 2. Hubbell Power Systems, Inc.
 - 3. 0-Z/Gedney; EGS Electrical Group LLC.
 - 4. 3M; Electrical Products Division.
 - 5. Tyco Electronics Corp.
 - 6. Or an approved equivalent.

- B. Description: Factory-fabricated connectors and splices of size, ampacity rating, material, type, and class for application and service indicated.

PART 3 EXECUTION

3.1 CONDUCTOR MATERIAL APPLICATIONS

- A. Feeders: All feeders shall be copper. Solid for No. 10 American wire gauge (AWG) and smaller; stranded for No. 8 AWG and larger.
- B. Branch Circuits: Copper. Solid for No. 10 AWG and smaller; stranded for No. 8 AWG and larger.

3.2 CONDUCTOR INSULATION AND MULTICONDUCTOR CABLE APPLICATIONS AND WIRING METHODS

- A. Service Entrance: Type XHHW, single conductors in raceway.
- B. Feeders: Type XHHW, single conductors in raceway.
- C. Branch Circuits: Type XHHW, single conductors in raceway.

3.3 INSTALLATION OF CONDUCTORS AND CABLES

- A. Use manufacturer-approved pulling compound or lubricant where necessary; compound used must not deteriorate conductor or insulation. Do not exceed manufacturer's recommended maximum pulling tensions and sidewall pressure values.
- B. Use pulling means, including fish tape, cable, rope, and basket-weave wire/cable grips that will not damage cables or raceway.
- C. Install exposed conduits/cables parallel and perpendicular to surfaces of exposed structural members, and follow surface contours where possible.

3.4 CONNECTIONS

- A. Tighten electrical connectors and terminals according to manufacturer's published torque-tightening values. If manufacturer's torque values are not indicated, use those specified in Underwriters Laboratory (UL) 486A and UL 486B.
- B. Make splices and taps that are compatible with conductor material and that possess equivalent or better mechanical strength and insulation ratings than unspliced conductors.
- C. Wiring at Outlets: Install conductor at each outlet, with at least 6 inches of slack.

3.5 FIELD QUALITY CONTROL

- A. Perform tests and inspections and prepare test reports.
- B. Tests and Inspections:
 1. After installing conductors and cables and before electrical circuitry has been energized, test service entrance and feeder conductors, and branch conductors for compliance with requirements.
 2. Perform each visual and mechanical inspection and electrical test stated in InterNational Electrical Testing Association (NETA) Acceptance Testing Specification. Certify compliance with test parameters.

3. Infrared Scanning: After Substantial Completion, but not more than 60 days after Final Acceptance, perform an infrared scan of each splice in cables and conductors No.4 AWG and larger. Remove box and equipment covers so splices are accessible to portable scanner.
 - a. Instrument: Use an infrared scanning device designed to measure temperature or to detect significant deviations from normal values. Provide calibration record for device.
 - b. Record of Infrared Scanning: Prepare a certified report that identifies splices checked and that describes scanning results. Include notation of deficiencies detected, remedial action taken and observations after remedial action.

- C. Test Reports: Prepare a written report to record the following:
 1. Test procedures used.
 2. Test results that comply with requirements.
 3. Test results that do not comply with requirements and corrective action taken to achieve compliance with requirements.

- D. Remove and replace malfunctioning units and retest as specified above.

PART 4 MEASUREMENT AND PAYMENT

4.1. MEASUREMENT

The quantity of Conductors and Cables to be paid for under Items E 260519 B, E 260519 D and E 260519 G shall be the actual number of linear feet of each size conductors and cables actually installed to complete the work, to the satisfaction of the Engineer. When multiple lengths of conductors are used as a cable, each length of conductor shall be measured separately.

PRICES TO COVER

The unit price bid per linear foot of each size Conductor or Cable shall cover the cost of furnishing all labor, materials, equipment, insurance, and incidentals to complete the work including, but not limited to, furnishing and placing conductor and cable, and all associated connectors and splices, all in accordance with the Contract Drawings, the specifications, and the directions of the Engineer.

Payment will be made under:

Item No.	Item	Pay Unit
E 260519 B	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (NO. 2 AWG WIRE)	L.F.
E 260519 D	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (NO. 6 AWG WIRE)	L.F.
E 260519 G	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (NO. 10 AWG WIRE)	L.F.

**SECTION E 260526
(NOT A BID ITEM)
GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS**

PART 1 - GENERAL

1.1. SUMMARY

- A. This Section includes methods and materials for grounding systems and equipment.

1.2. SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Qualification Data: For testing agency and testing agency's field supervisor.
- C. Field quality-control test reports.

1.3. QUALITY ASSURANCE

- A. Testing Agency Qualifications: An independent agency, with the experience and capability to conduct the testing indicated, that is a member company of the InterNational Electrical Testing Association (NETA) is a nationally recognized testing laboratory (NRTL) as defined by Occupational Safety and Health Administration (OSHA) in 29 CFR 1910.7, and that is acceptable to authorities having jurisdiction.
 - 1. Testing Agency's Field Supervisor: Person currently certified by the InterNational Electrical Testing Association to supervise on-site testing specified in Subsection 1.11.
- B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in New York City Electrical Code, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- C. Comply with Underwriters Laboratory (UL) 467 for grounding and bonding materials and equipment.

PART 2 - PRODUCTS

2.1. CONDUCTORS

- A. Insulated Conductors: Copper wire or cable insulated for 600 V unless otherwise required by applicable Code or authorities having jurisdiction.
- B. Bare Copper Conductors:
 - 1. Solid Conductors: American Society for Testing and Materials (ASTM) B 3.
 - 2. Stranded Conductors: ASTM B 8.
 - 3. Tinned Conductors: ASTM B 33.
 - 4. Bonding Cable: 28 kcmil, 14 strands of No. 17 American Wire Gauge (AWG) conductor, 1/4 inch in diameter.

5. Bonding Conductor: No. 4 or No. 6 AWG, stranded conductor.
6. Bonding Jumper: Copper tape, braided conductors, terminated with copper ferrules; 1-5/8 inches wide and 1/16 inch thick.
7. Tinned Bonding Jumper: Tinned-copper tape, braided conductors, terminated with copper ferrules; 1-5/8 inches wide and 1/16 inch thick.

2.2. CONNECTORS

- A. Listed and labeled by a nationally recognized testing laboratory acceptable to authorities having jurisdiction for applications in which used, and for specific types, sizes, and combinations of conductors and other items connected.
- B. Bolted Connectors for Conductors and Pipes: Copper or copper alloy, bolted pressure-type, with at least two bolts.
 1. Pipe Connectors: Clamp type, sized for pipe.
- C. Welded Connectors: Exothermic-welding kits of types recommended by kit manufacturer for materials being joined and installation conditions.

2.3. GROUNDING ELECTRODES

Ground Rods: Copper-clad steel; 5/8 by 96 inches in diameter.

PART 3 - EXECUTION

3.1. APPLICATIONS

- A. Conductors: Install solid conductor for No. 8 AWG and smaller, and stranded conductors for No. 6 AWG and larger, unless otherwise indicated.
- B. Conductor Terminations and Connections:
 1. Pipe and Equipment Grounding Conductor Terminations: Bolted connectors.
 2. Underground Connections: Welded connectors, except at test wells and as otherwise indicated.

3.2. GROUNDING UNDERGROUND DISTRIBUTION SYSTEM COMPONENTS

- A. Comply with Institute of Electrical and Electronic Engineers (IEEE) C2 grounding requirements.
- B. Grounding Manholes and Handholes: Install a driven ground rod through manhole or handhole floor, close to wall, and set rod depth so 4 inches will extend above finished floor. If necessary, install ground rod before manhole is placed and provide No. 1/0 AWG bare, tinned-copper conductor from ground rod into manhole through a waterproof sleeve in manhole wall. Protect ground rods passing through concrete floor with a double wrapping of pressure-sensitive insulating tape or heat-shrunk insulating sleeve from 2 inches above to 6 inches below concrete. Seal floor opening with waterproof, nonshrink grout.

- C. Grounding Connections to Manhole Components: Bond exposed-metal parts such as inserts, cable racks, pulling irons, ladders, and cable shields within each manhole or handhole, to ground rod or grounding conductor. Make connections with No. 4 AWG minimum, stranded, hard-drawn copper bonding conductor. Train conductors level or plumb around corners and fasten to manhole walls. Connect to cable armor and cable shields as recommended by manufacturer of splicing and termination kits.

3.3.EQUIPMENT GROUNDING

- A. Install insulated equipment grounding conductors with all feeders and branch circuits.
- B. Metal and Wood Poles Supporting Outdoor Lighting Fixtures: Install grounding electrode and a separate insulated equipment grounding conductor in addition to grounding conductor installed with branch-circuit conductors.

3.4.INSTALLATION

- A. Grounding Conductors: Route along shortest and straightest paths possible, unless otherwise indicated or required by Code. Avoid obstructing access or placing conductors where they may be subjected to strain, impact, or damage.
- B. Ground Rods: Drive rods until tops are 2 inches below finished floor or final grade, unless otherwise indicated.
 - 1. Interconnect ground rods with grounding electrode conductor below grade and as otherwise indicated. Make connections without exposing steel or damaging coating, if any.
 - 2. For grounding electrode system, install at least two rods spaced at least one-rod length from each other and located at least the same distance from other grounding electrodes, and connect to the service grounding electrode conductor.
- C. Bonding Straps and Jumpers: Install in locations accessible for inspection and maintenance, except where routed through short lengths of conduit.
 - 1. Bonding to Structure: Bond straps directly to basic structure, taking care not to penetrate any adjacent parts.
 - 2. Bonding to Equipment Mounted on Vibration Isolation Hangers and Supports: Install so vibration is not transmitted to rigidly mounted equipment.
 - 3. Use exothermic-welded connectors for outdoor locations, but if a disconnect-type connection is required, use a bolted clamp.

3.5.FIELD QUALITY CONTROL

- A. Testing Agency: Engage a qualified testing and inspecting agency to perform the following field tests and inspections and prepare test reports:
 - 1. After installing grounding system but before permanent electrical circuits have been energized, test for compliance with requirements.

2. Test completed grounding system at each location where a maximum ground-resistance level is specified, at service disconnect enclosure grounding terminal. Make tests at ground rods before any conductors are connected.
 - a. Measure ground resistance not less than two full days after last trace of precipitation and without soil being moistened by any means other than natural drainage or seepage and without chemical treatment or other artificial means of reducing natural ground resistance.
 - b. Perform tests by fall-of-potential method according to IEEE 81.
- B. Report measured ground resistances that exceed the following values:
 1. Power and Lighting Equipment or System with Capacity 500 kVA and Less: 10 ohms.
 2. Substations and Pad-Mounted Equipment: 5 ohms.
 3. Manhole Grounds: 10 ohms.
- C. Excessive Ground Resistance: If resistance to ground exceeds specified values, notify the Engineer promptly and include recommendations to reduce ground resistance.

PART 4 - MEASUREMENT AND PAYMENT

No separate payment will be made for work under this Section. The cost of all work under this Section shall be deemed to be included in the cost of other electrical work associated with this project.

**SECTION E 260529
(NOT A BID ITEM)
HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS**

PART 1 - GENERAL

1.1. SUMMARY

- A. This Section includes the following:
1. Hangers and supports for electrical equipment and systems.
 2. Construction requirements for concrete bases and electrical enclosure bollards.

1.2. DEFINITIONS

- A. RMC: Rigid metal conduit.

1.3. PERFORMANCE REQUIREMENTS

Design equipment supports capable of supporting combined operating weight of supported equipment and connected systems and components.

1.4. SUBMITTALS

Product Data: For the following:

1. Steel slotted support systems.
2. Steel pipe for electrical enclosure bollards.

Shop Drawings: Signed and sealed by a qualified Professional Engineer licensed in the State of New York. Show fabrication and installation details and include calculations for the following:

1. Steel slotted channel systems. Include Product Data for components.
2. Equipment supports.
3. Welding certificates.

1.5. QUALITY CONTROL

Welding: Qualify procedures and personnel according to American Welding Society (AWS) D1.1/D1.1M, "Structural Welding Code - Steel."

Comply with New York City Electrical Code.

1.6. COORDINATION

- A. Coordinate size and location of concrete bases. Cast anchor-bolt inserts into bases. Concrete, reinforcement, and formwork requirements.

PART 2 – PRODUCTS

2.1. SUPPORT, ANCHORAGE, AND ATTACHMENT COMPONENTS

- A. Steel Slotted Support Systems: Comply with Metal Framing. Metal Framing. Standards Publication 2004 (MFMA-4), factory-fabricated components for field assembly.
1. Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include the following:
 - a. Allied Tube & Conduit.
 - b. Cooper B-Line, Inc.; a division of Cooper Industries.
 - c. ERICO International Corporation.
 - d. GS Metals Corp.
 - e. Thomas & Betts Corporation.
 - f. Unistrut; Tyco International, Ltd.
 - g. Wesanco, Inc.
 - h. or approved equivalent.
 2. Metallic Coatings: Hot-dip galvanized after fabrication and applied according to MFMA-4.
 3. Nonmetallic Coatings: Manufacturer's standard Polyvinyl chloride (PVC), polyurethane, or polyester coating applied according to MFMA-4.
 4. Painted Coatings: Manufacturer's standard painted coating applied according to MFMA-4.
 5. Channel Dimensions: Selected for applicable load criteria.
- B. Raceway and Cable Supports: As described in National Electrical Contractors Association (NECA) 1-2010 and NECA 101-2006.
- C. Conduit and Cable Support Devices: Steel and malleable-iron hangers, clamps, and associated fittings, designed for types and sizes of raceway or cable to be supported.
- D. Support for Conductors in Vertical Conduit: Factory-fabricated assembly consisting of threaded body and insulating wedging plug or plugs for non-armored electrical conductors or cables in riser conduits. Plugs shall have number, size, and shape of conductor gripping pieces as required to suit individual conductors or cables supported. Body shall be malleable iron.
- E. Structural Steel for Fabricated Supports and Restraints: American Society for Testing and Materials (ASTM) A 36, steel plates, shapes, and bars; black and galvanized.
- F. Mounting, Anchoring, and Attachment Components: Items for fastening electrical items or their supports to building surfaces include the following:

1. Powder-Actuated Fasteners: Threaded-steel stud, for use in hardened portland cement concrete, steel, or wood, with tension, shear, and pullout capacities appropriate for supported loads and building materials where used.
 - a. Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include the following:
 - 1) Hilti Inc.
 - 2) ITW Ramset/Red Head; a division of Illinois Tool Works, Inc.
 - 3) MKT Fastening, LLC.
 - 4) Simpson Strong-Tie Co., Inc.; Masterset Fastening Systems Unit.
 - 5) Or an approved equivalent.
2. Mechanical-Expansion Anchors: Insert-wedge-type, zinc-coated steel, for use in hardened portland cement concrete with tension, shear, and pullout capacities appropriate for supported loads and building materials in which used.
 - a. Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1) Cooper B-Line, Inc.; a division of Cooper Industries.
 - 2) Empire Tool and Manufacturing Co., Inc.
 - 3) Hilti Inc.
 - 4) ITW Ramset/Red Head; a division of Illinois Tool Works, Inc.
 - 5) MKT Fastening, LLC.
 - 6) Or an approved equivalent.
3. Concrete Inserts: Steel or malleable-iron, slotted support system units similar to Manufacturers Standardized Society (MSS) Type 18; complying with MFMA-4 or MSS SP-58.
4. Clamps for Attachment to Steel Structural Elements: MSS SP-58, type suitable for attached structural element.
5. Through Bolts: Structural type, hex head, and high strength. Comply with ASTM A 325.
6. Toggle Bolts: All-steel springhead type.
7. Hanger Rods: Threaded steel.

2.2. FABRICATED METAL EQUIPMENT SUPPORT ASSEMBLIES

- A. Description: Welded or bolted, structural-steel shapes, shop or field fabricated to fit dimensions of supported equipment.

2.3. STEEL PILE ELECTRICAL ENCLOSURE BOLLARDS

- A. Description: Steel pipe bollards for electrical box enclosures shall be furnished and painted in accordance with the details shown on the Contract Drawings.

PART 3 - EXECUTION

3.1. APPLICATION

- A. Comply with NECA 1 and NECA 101 for application of hangers and supports for electrical equipment and systems except if requirements in this Section are stricter.

3.2. SUPPORT INSTALLATION

- A. Comply with NECA 1 and NECA 101 for installation requirements except as specified in this Article.
- B. Raceway Support Methods: In addition to methods described in NECA 1, Electrical Metallic Tubing (EMT), Intermediate Metal Conduit (IMC), and Rigid Metal Conduit (RMC) may be supported by openings through structure members, as permitted in New York City Electrical Code.
- C. Strength of Support Assemblies: Where not indicated, select sizes of components so strength will be adequate to carry present and future static loads within specified loading limits. Minimum static design load used for strength determination shall be weight of supported components plus 200 lb.
- D. Mounting and Anchorage of Surface-Mounted Equipment and Components: Anchor and fasten electrical items and their supports to building structural elements by the following methods unless otherwise indicated by code:
1. To Wood: Fasten with lag screws or through bolts.
 2. To New Concrete: Bolt to concrete inserts.
 3. To Masonry: Approved toggle-type bolts on hollow masonry units and expansion anchor fasteners on solid masonry units.
 4. To Existing Concrete: Expansion anchor fasteners.
 5. Instead of expansion anchors, powder-actuated driven threaded studs provided with lock washers and nuts may be used in existing standard-weight concrete 4 inches thick or greater. Do not use for anchorage to lightweight-aggregate concrete or for slabs less than 4 inches thick.
 6. To Steel: Beam clamps (MSS Type 19, 21, 23, 25, or 27) complying with MSS SP-69.
 7. To Light Steel: Sheet metal screws.

8. Items Mounted on Hollow Walls and Nonstructural Building Surfaces: Mount cabinets, panelboards, disconnect switches, control enclosures, pull and junction boxes, transformers, and other devices on slotted-channel racks attached to substrate by means that meet seismic-restraint strength and anchorage requirements.

E. Drill holes for expansion anchors in concrete at locations and to depths that avoid reinforcing bars.

3.3. INSTALLATION OF FABRICATED METAL SUPPORTS

A. Cut, fit, and place miscellaneous metal supports accurately in location, alignment, and elevation to support and anchor electrical materials and equipment.

B. Field Welding: Comply with AWS D1.1/D1.1M.

3.4. FOUNDATIONS FOR PEDESTRIAN LIGHTING POLE (14-FEET)

A. Construct concrete bases in accordance with the Contract Drawings, **Specification Section 20 of the New York City Division of Street Lighting Standard Specifications**, and as directed by the Engineer.

B. Concrete shall be pigmented to match that of the adjacent plaza pavement.

C. Anchor equipment to concrete base.

1. Place and secure anchorage devices. Use supported equipment manufacturer's setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.
2. Install anchor bolts to elevations required for proper attachment to supported equipment.
3. Install anchor bolts according to anchor-bolt manufacturer's written instructions.

3.5. PAINTING

A. Touchup: Clean field welds and abraded areas of shop paint. Paint exposed areas immediately after erecting hangers and supports. Use same materials as used for shop painting. Comply with Society for Protective Coatings (SSPC) PA 1 requirements for touching up field-painted surfaces.

- a. Apply paint by brush or spray to provide minimum dry film thickness of 2.0 mils.

B. Touchup: Comply with requirements for cleaning and touchup painting of field welds, bolted connections, and abraded areas of shop paint on miscellaneous metal.

C. Galvanized Surfaces: Clean welds, bolted connections, and abraded areas and apply galvanizing-repair paint to comply with ASTM A 780.

PART 4 - MEASUREMENT AND PAYMENT

No separate payment will be made for work under this Section. The cost of all work under this Section shall be deemed to be included in the cost of other electrical work associated with this project.

**SECTION E 260533
RACEWAY AND BOXES FOR ELECTRICAL SYSTEMS**

PART 1 - GENERAL

1.1 SUMMARY

- (A) This Section includes raceways, fittings, boxes, enclosures, and cabinets for electrical wiring.

1.2 DEFINITIONS

- (A) LFMC: Liquidtight flexible metal conduit.

1.3 SUBMITTALS

- (A) Product Data: For surface raceways, wireways and fittings, floor boxes, hinged-cover enclosures, and cabinets.
- (B) Shop Drawings: For the following raceway components. Include plans, elevations, sections, details, and attachments to other work.
1. Custom enclosures and cabinets.
 2. For handholes and boxes for underground wiring, including the following:
 - a. Duct entry provisions, including locations and duct sizes.
 - b. Frame and cover design.
 - c. Grounding details.
 - d. Dimensioned locations of cable rack inserts, and pulling-in and lifting irons.
 - e. Joint details.

1.4 QUALITY CONTROL

- (A) Electrical Components, Devices, and Accessories: Listed and labeled as defined in New York City Electrical Code, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- (B) Comply with New York City Electrical Code.

PART 2 - PRODUCTS

2.1 METAL CONDUIT AND TUBING

- (A) Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include the following:
1. AFC Cable Systems, Inc.

2. Alflex Inc.
3. Allied Tube & Conduit; a Tyco International Ltd. Co.
4. Anamet Electrical, Inc.; Anaconda Metal Hose.
5. Electri-Flex Co.
6. Manhattan/CDT/Cole-Flex.
7. Maverick Tube Corporation.
8. O-Z Gedney; a unit of General Signal.
9. Wheatland Tube Company.
10. Or an approved equivalent.

- (B) Rigid Steel Conduit: ANSI C80.1.
- (C) LFMC: Flexible steel conduit with PVC jacket.
- (D) Joint Compound for Rigid Steel Conduit: Listed for use in cable connector assemblies, and compounded for use to lubricate and protect threaded raceway joints from corrosion and enhance their conductivity.

2.2 METAL WIREWAYS

- (A) Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include the following:
1. Cooper B-Line, Inc.
 2. Hoffman.
 3. Square D; Schneider Electric.
 4. Or an approved equivalent.
- (B) Description: Sheet metal sized and shaped as indicated, NEMA 250, Type 1, unless otherwise indicated.
- (C) Fittings and Accessories: Include couplings, offsets, elbows, expansion joints, adapters, hold-down straps, end caps, and other fittings to match and mate with wireways as required for complete system.
- (D) Wireway Covers: Screw-cover type.
- (E) Finish: Manufacturer's standard enamel finish.

2.3 BOXES, ENCLOSURES, AND CABINETS

- (A) Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include the following:
1. Cooper Crouse-Hinds; Div. of Cooper Industries, Inc.
 2. EGS/Appleton Electric.
 3. Erickson Electrical Equipment Company.
 4. Hoffman.
 5. Hubbell Incorporated; Killark Electric Manufacturing Co. Division.
 6. O-Z/Gedney; a unit of General Signal.
 7. RACO; a Hubbell Company.
 8. Robroy Industries, Inc.; Enclosure Division.

9. Scott Fetzer Co.; Adalet Division.
10. Spring City Electrical Manufacturing Company.
11. Thomas & Betts Corporation.
12. Walker Systems, Inc.; Wiremold Company (The).
13. Woodhead, Daniel Company; Woodhead Industries, Inc. Subsidiary.
14. Or an approved equivalent.

- (B) Sheet Metal Outlet and Device Boxes: NEMA OS 1.
- (C) Metal Floor Boxes: Cast or sheet metal, fully adjustable, rectangular.
- (D) Small Sheet Metal Pull and Junction Boxes: NEMA OS 1.
- (E) Cast-Metal Access, Pull, and Junction Boxes: NEMA FB 1, cast aluminum with gasketed cover.
- (F) Hinged-Cover Enclosures: NEMA 250, Type 4X, with continuous-hinge cover with flush vandal resistant latch, unless otherwise indicated.
1. Metal Enclosures: Type A316L Stainless Steel.

2.4 HANDHOLES AND BOXES FOR EXTERIOR UNDERGROUND WIRING

- (A) Description: Comply with SCTE 77.
1. Color of Frame and Cover: Gray in hardscaped areas and Green in landscaped areas.
 2. Configuration: Units shall be designed for flush burial and have open bottom, unless otherwise indicated.
 3. Cover: Weatherproof, secured by tamper-resistant locking devices and having structural load rating consistent with enclosure.
 4. Cover Finish: Nonskid finish shall have a minimum coefficient of friction of 0.50.
 5. Cover Legend: Molded lettering, as indicated for each service.
 6. Conduit Entrance Provisions: Conduit-terminating fittings shall mate with entering ducts for secure, fixed installation in enclosure wall.
 7. Handholes 12 inches wide by 24 inches long and larger shall have inserts for cable racks and pulling-in irons installed before concrete is poured.
- (B) Polymer-Concrete Handholes and Boxes with Polymer-Concrete Cover: Molded of sand and aggregate, bound together with polymer resin, and reinforced with steel or fiberglass or a combination of the two.
1. Basis-of-Design Product: Subject to compliance with requirements, provide the product indicated on Drawings or a comparable product by one of the following:
 - a. Armorcast Products Company.
 - b. Carson Industries LLC.
 - c. CDR Systems Corporation.
 - d. NewBasis.
 - e. Or an approved equivalent.

PART 3 - EXECUTION**3.1 RACEWAY APPLICATION**

- (A) Outdoors: Apply raceway products as specified below, unless otherwise indicated:
 - 1. Exposed Conduit: Rigid steel conduit.
 - 2. Concealed Conduit, Aboveground: Rigid steel conduit.
 - 3. Underground Conduit: Rigid steel conduit, direct buried.
 - 4. Connection to Vibrating Equipment (Including Transformers and Hydraulic, Pneumatic, Electric Solenoid, or Motor-Driven Equipment): LFMC.
 - 5. Boxes and Enclosures, Aboveground: NEMA 250, Type 4X.
- (B) Minimum Raceway Size: 3/4-inch trade size.
- (C) Raceway Fittings: Compatible with raceways and suitable for use and location.
 - 1. Rigid Steel Conduit: Use threaded rigid steel conduit fittings, unless otherwise indicated.

3.2 INSTALLATION

- (A) Comply with NECA 1 for installation requirements applicable to products specified in Part 2 except where requirements on Drawings or in this Article are stricter.
- (B) Keep raceways at least 6 inches away from parallel runs of flues and steam or hot-water pipes. Install horizontal raceway runs above water and steam piping.
- (C) Complete raceway installation before starting conductor installation.
- (D) Arrange stub-ups so curved portions of bends are not visible above the finished slab.
- (E) Install no more than the equivalent of three 90-degree bends in any conduit run except for communications conduits, for which fewer bends are allowed.
- (F) Conceal conduit, unless otherwise indicated.
- (G) Raceways Embedded in Slabs:
 - 1. Run conduit larger than 1-inch trade size, parallel or at right angles to main reinforcement. Where at right angles to reinforcement, place conduit close to slab support.
- (H) Threaded Conduit Joints, Exposed to Wet, Damp, Corrosive, or Outdoor Conditions: Apply listed compound to threads of raceway and fittings before making up joints. Follow compound manufacturer's written instructions.
- (I) Raceway Terminations at Locations Subject to Moisture or Vibration: Use insulating bushings to protect conductors, including conductors smaller than No. 4 AWG.

- (J) Install pull wires in empty raceways. Use polypropylene or monofilament plastic line with not less than 200-lb tensile strength. Leave at least 12 inches of slack at each end of pull wire.
- (K) Raceways for Optical Fiber and Communications Cable: Install raceways, metallic and nonmetallic, rigid and flexible, as follows:
 - 1. 3/4-Inch Trade Size and Smaller: Install raceways in maximum lengths of 50 feet.
 - 2. 1-Inch Trade Size and Larger: Install raceways in maximum lengths of 75 feet.
 - 3. Install with a maximum of two 90-degree bends or equivalent for each length of raceway unless Drawings show stricter requirements. Separate lengths with pull or junction boxes or terminations at distribution frames or cabinets where necessary to comply with these requirements.
- (L) Install raceway sealing fittings at suitable, approved, and accessible locations and fill them with listed sealing compound. For concealed raceways, install each fitting in a flush steel box with a blank cover plate having a finish similar to that of adjacent plates or surfaces. Install raceway sealing fittings at the following points:
 - 1. Where required by New York City Electrical Code.
- (M) Flexible Conduit Connections: Use maximum of 72 inches of flexible conduit for equipment subject to vibration, noise transmission, or movement; and for transformers and motors.
 - 1. Use LFMC in damp or wet locations subject to severe physical damage.
 - 2. Use LFMC in damp or wet locations not subject to severe physical damage.
- (N) Recessed Boxes in Masonry Walls: Saw-cut opening for box in center of cell of masonry block, and install box flush with surface of wall.
- (O) Set metal floor boxes level and flush with finished floor surface.

3.3 INSTALLATION OF UNDERGROUND CONDUIT

- (A) Direct-Buried Conduit:
 - 1. Excavate trench bottom to provide firm and uniform support for conduit. Prepare trench bottom for pipe less than 6 inches in nominal diameter.
 - 2. Install backfill.
 - 3. After installing conduit, backfill and compact. Start at tie-in point, and work toward end of conduit run, leaving conduit at end of run free to move with expansion and contraction as temperature changes during this process. Firmly hand tamp backfill around conduit to provide maximum supporting strength. After placing controlled backfill to within 12 inches of finished grade, make final conduit connection at end of run and complete backfilling with normal compaction.
 - 4. Install manufactured rigid steel conduit elbows for stub-ups at poles and equipment and at building entrances through the floor.
 - a. Couple steel conduits to ducts with adapters designed for this purpose, and encase coupling with 3 inches of concrete.

- b. For stub-ups at equipment mounted on outdoor concrete bases, extend steel conduit horizontally a minimum of 60 inches from edge of equipment pad or foundation. Install insulated grounding bushings on terminations at equipment.
5. Warning Planks: Bury warning planks approximately 12 inches above direct-buried conduits, placing those 24 inches o.c. Align planks along the width and along the centerline of conduit.

3.4 INSTALLATION OF UNDERGROUND HANDHOLES AND BOXES

- (A) Install handholes and boxes level and plumb and with orientation and depth coordinated with connecting conduits to minimize bends and deflections required for proper entrances.
- (B) Unless otherwise indicated, support units on a level bed of crushed stone or gravel, graded from 1/2-inch sieve to No. 4 sieve and compacted to same density as adjacent undisturbed earth.
- (C) Elevation: In paved areas, set so cover surface will be flush with finished grade. Set covers of other enclosures 1 inch above finished grade.
- (D) Install removable hardware, including pulling eyes, cable stanchions, cable arms, and insulators, as required for installation and support of cables and conductors and as indicated. Select arm lengths to be long enough to provide spare space for future cables, but short enough to preserve adequate working clearances in the enclosure.
- (E) Field-cut openings for conduits according to enclosure manufacturer's written instructions. Cut wall of enclosure with a tool designed for material to be cut. Size holes for terminating fittings to be used, and seal around penetrations after fittings are installed.

3.5 PROTECTION

- (A) Provide final protection and maintain conditions that ensure coatings, finishes, and cabinets are without damage or deterioration at time of Substantial Completion.
 1. Repair damage to galvanized finishes with zinc-rich paint recommended by manufacturer.
 2. Repair damage to paint finishes with matching touchup coating recommended by manufacturer.

PART 4 - MEASUREMENT AND PAYMENT

4.1 MEASUREMENT

- (A) The quantity of Metal Conduit and Tubing to be paid for under ITEMS E 260533 AA, E 260533 AB, E 260533 AC, and E 260533 AD shall be the actual number of linear feet of Metal Conduit and Tubing, installed to complete the work, to the satisfaction of the Engineer.

- (B) The quantity of Metal Wireways to be paid for under ITEM E 260533 B shall be the actual number of linear feet of Metal Wireways, installed to complete the work, to the satisfaction of the Engineer.
- (C) The quantity of Boxes, Enclosures, and Cabinets to be paid for under ITEMS E 260533 BA, E 260533 BB, E 260533 CA, E 260533 CB and E 260533 CC shall be the actual number of Boxes, Enclosures, and Cabinets, installed to complete the work, to the satisfaction of the Engineer.
- (D) The quantity of Handholes and Boxes for Exterior Underground Wiring to be paid for under ITEM E 260533 D shall be the actual number of Handholes or Boxes for Exterior Underground Wiring, installed to complete the work, to the satisfaction of the Engineer.

4.2 PRICES TO COVER

- (A) The unit price bid per linear foot of Metal Conduit and Tubing, under ITEMS E 260533 AA, E 260533 AB, E 260533 AC and E 260533 AD, shall cover the cost of furnishing all labor, materials, equipment, insurance, and incidentals to complete the work including, but not limited to, furnishing and placing Metal Conduit and Tubing, and all associated connectors and splices, all in accordance with the Contract Drawings, the specifications, and the directions of the Engineer.
- (B) The unit price bid per linear foot of Metal Wireways, under ITEM E 260533 B, shall cover the cost of furnishing all labor, materials, equipment, insurance, and incidentals to complete the work including, but not limited to, furnishing and placing Metal Wireways, all in accordance with the Contract Drawings, the specifications, and the directions of the Engineer.
- (C) The unit price bid per each Enclosure, under ITEMS E 260533 BA, E 260533 BB, E 260533 CA, E 260533 CB and E 260533 CC shall cover the cost of furnishing all labor, materials, equipment, insurance, and incidentals to complete the work including, but not limited to, furnishing and placing concrete foundations and footings and Electrical Enclosure Bollards, as per Section E 260529, and furnishing and installing Enclosure, all in accordance with the Contract Drawings, the specifications, and the directions of the Engineer.
- (D) The unit price bid per each Handholes and Boxes for Exterior Underground Wiring, under ITEM E 260533 D, shall cover the cost of furnishing all labor, materials, equipment, insurance, and incidentals to complete the work including, but not limited to, furnishing and placing the Handholes and Boxes for Exterior Underground Wiring, all in accordance with the Contract Drawings, the specifications, and the directions of the Engineer.

Payment will be made under:

Item No.	Pay Unit	Item
E 260533 AA	METAL CONDUIT AND TUBING (3/4" GALVANIZED RIGID STEEL CONDUIT)	L.F.
E 260533 AB	METAL CONDUIT AND TUBING (1" GALVANIZED RIGID STEEL CONDUIT)	L.F.

E 260533 AC	METAL CONDUIT AND TUBING (2" GALVANIZED RIGID STEEL CONDUIT)	L.F.
E 260533 AD	METAL CONDUIT AND TUBING (4" GALVANIZED RIGID STEEL CONDUIT)	L.F.
E 260533 B	METAL WIREWAYS	L.F.
E 260533 BA	LOCKABLE STAINLESS STEEL ENCLOSURE FOR UTILITY SERVICE AND DISTRIBUTION PANEL	EACH
E 260533 BB	FREESTANDING LOCKABLE EVENT BOX OUTLETS ENCLOSURE	EACH
E 260533 CA	FREESTANDING PANELBOARD ENCLOSURE	EACH
E 260533 CB	FREESTANDING COMPANY SWITCH ENCLOSURE	EACH
E 260533 CC	QUAD RECEPTACLE BANK ENCLOSURE	EACH
E 260533 D	HANDHOLES AND BOXES FOR EXTERIOR UNDERGROUND WIRING	EACH

**SECTION E 260553
(NOT A BID ITEM)
IDENTIFICATION FOR ELECTRICAL SYSTEMS**

PART 1 - GENERAL

1.1. SUMMARY

Section Includes:

1. Identification for raceways.
2. Identification of power and control cables.
3. Identification for conductors.
4. Underground-line warning tape.
5. Warning labels and signs.
6. Instruction signs.
7. Equipment identification labels.
8. Miscellaneous identification products.

1.2. SUBMITTALS

Product Data: For each electrical identification product indicated.

Samples: For each type of label and sign to illustrate size, colors, lettering style, mounting provisions, and graphic features of identification products.

Identification Schedule: An index of nomenclature of electrical equipment and system components used in identification signs and labels.

1.3. QUALITY ASSURANCE

- A. Comply with American National Standards Institute (ANSI) A13.1 and Institute Of Electrical And Electronic Engineers (IEEE) C2.
- B. Comply with New York City Electrical Code.
- C. Comply with Occupational Safety And Health Administration (OSHA) 29 CFR 1910.144 and OSHA 29 CFR 1910.145.
- D. Comply with ANSI Z535.4 for safety signs and labels.
- E. Adhesive-attached labeling materials, including label stocks, laminating adhesives, and inks used by label printers, shall comply with Underwriters Laboratory (UL) 969.

1.4. COORDINATION

- A. Coordinate identification names, abbreviations, colors, and other features with requirements in other Sections requiring identification applications, Contract Drawings, Shop Drawings, manufacturer's wiring diagrams, and the Operation and Maintenance Manual; and with those required by codes, standards, and OSHA 29 CFR 1910.145. Use consistent designations throughout Project.
- B. Coordinate installation of identifying devices with completion of covering and painting of surfaces where devices are to be applied.
- C. Coordinate installation of identifying devices with location of access panels and doors.
- D. Install identifying devices before installing acoustical ceilings and similar concealment.

PART 2 - PRODUCTS

2.1. POWER RACEWAY IDENTIFICATION MATERIALS

- A. Comply with ANSI A13.1 for minimum size of letters for legend and for minimum length of color field for each raceway size.
- B. Colors for Raceways Carrying Circuits at 600 V or Less:
 - 1. Black letters on an orange field.
 - 2. Legend: Indicate voltage and system or service type.
- C. Self-Adhesive Vinyl Labels for Raceways Carrying Circuits at 600 V or Less: Preprinted, flexible label laminated with a clear, weather- and chemical-resistant coating and matching wraparound adhesive tape for securing ends of legend label.
- D. Snap-Around Labels for Raceways Carrying Circuits at 600 V or Less: Slit, pretensioned, flexible, preprinted, color-coded acrylic sleeve, with diameter sized to suit diameter of raceway or cable it identifies and to stay in place by gripping action.
- E. Snap-Around, Color-Coding Bands for Raceways Carrying Circuits at 600 V or Less: Slit, pretensioned, flexible, solid-colored acrylic sleeve, 2 inches long, with diameter sized to suit diameter of raceway or cable it identifies and to stay in place by gripping action.
- F. Metal Tags: Brass or aluminum, 2 by 2 by 0.05 inch, with stamped legend, punched for use with self-locking cable tie fastener.
- G. Write-On Tags: Polyester tag, 0.010 inch thick, with corrosion-resistant grommet and cable tie for attachment to conductor or cable.
 - 1. Marker for Tags: Permanent, waterproof, black ink marker recommended by tag manufacturer.

2.2. POWER AND CONTROL CABLE IDENTIFICATION MATERIALS

- A. Comply with ANSI A13.1 for minimum size of letters for legend and for minimum length of color field for each raceway and cable size.
- B. Self-Adhesive Vinyl Labels: Preprinted, flexible label laminated with a clear, weather- and chemical-resistant coating and matching wraparound adhesive tape for securing ends of legend label.
- C. Metal Tags: Brass or aluminum, 2 by 2 by 0.05 inch, with stamped legend, punched for use with self-locking cable tie fastener.
- D. Write-On Tags: Polyester tag, 0.010 inch thick, with corrosion-resistant grommet and cable tie for attachment to conductor or cable.
 - 1. Marker for Tags: Permanent, waterproof, black ink marker recommended by tag manufacturer.
- E. Snap-Around Labels: Slit, pretensioned, flexible, preprinted, color-coded acrylic sleeve, with diameter sized to suit diameter of raceway or cable it identifies and to stay in place by gripping action.

2.3. CONDUCTOR IDENTIFICATION MATERIALS

- A. Color-Coding Conductor Tape: Colored, self-adhesive vinyl tape not less than 3 mils thick by 1 to 2 inches wide.
- B. Self-Adhesive Vinyl Labels: Preprinted, flexible label laminated with a clear, weather- and chemical-resistant coating and matching wraparound adhesive tape for securing ends of legend label.
- C. Snap-Around Labels: Slit, pretensioned, flexible, preprinted, color-coded acrylic sleeve, with diameter sized to suit diameter of raceway or cable it identifies and to stay in place by gripping action.
- D. Snap-Around, Color-Coding Bands: Slit, pretensioned, flexible, solid-colored acrylic sleeve, 2 inches long, with diameter sized to suit diameter of raceway or cable it identifies and to stay in place by gripping action.
- E. Marker Tapes: Vinyl or vinyl-cloth, self-adhesive wraparound type, with circuit identification legend machine printed by thermal transfer or equivalent process.
- F. Write-On Tags: Polyester tag, 0.010 inch thick, with corrosion-resistant grommet and cable tie for attachment to conductor or cable.
 - 1. Marker for Tags: Machine-printed, permanent, waterproof, black ink marker recommended by printer manufacturer.

2.4. FLOOR MARKING TAPE

- A. 2-inch wide, 5-mil pressure-sensitive vinyl tape, with black and white stripes and clear vinyl overlay.

2.5. UNDERGROUND-LINE WARNING TAPE

- A. Tape:
 - 1. Recommended by manufacturer for the method of installation and suitable to identify and locate underground electrical and communications utility lines.
 - 2. Printing on tape shall be permanent and shall not be damaged by burial operations.
 - 3. Tape material and ink shall be chemically inert, and not subject to degrading when exposed to acids, alkalis, and other destructive substances commonly found in soils.
- B. Color and Printing:
 - 1. Comply with ANSI Z535.1 through ANSI Z535.5.
 - 2. Inscriptions for Red-Colored Tapes: ELECTRIC LINE, HIGH VOLTAGE.
 - 3. Inscriptions for Orange-Colored Tapes: TELEPHONE CABLE, CATV CABLE, COMMUNICATIONS CABLE, OPTICAL FIBER CABLE, FIRE ALARM.
- C. Material:
 - 1. Detectable three-layer laminate, consisting of a printed pigmented polyolefin film, a solid aluminum-foil core, and a clear protective film that allows inspection of the continuity of the conductive core, bright-colored, continuous-printed on one side with the inscription of the utility, compounded for direct-burial service.
 - 2. Overall Thickness: 5 mils.
 - 3. Foil Core Thickness: 0.35 mil.
 - 4. Weight: 28 lb/1000 SF.
 - 5. 3-Inch Tensile According to American Society for Testing and Materials (ASTM) D 882: 70 lbf, and 4600 psi.

2.6. WARNING LABELS AND SIGNS

- A. Comply with New York City Electrical Code and OSHA 29 CFR 1910.145.
- B. Self-Adhesive Warning Labels: Factory-printed, multicolor, pressure-sensitive adhesive labels, configured for display on front cover, door, or other access to equipment unless otherwise indicated.
- C. Baked-Enamel Warning Signs:
 - 1. Preprinted aluminum signs, punched or drilled for fasteners, with colors, legend, and size required for application.
 - 2. 1/4-inch grommets in corners for mounting.

3. Nominal size, 7 by 10 inches.
- D. Metal-Backed, Butyrate Warning Signs:
 1. Weather-resistant, nonfading, preprinted, cellulose-acetate butyrate signs with 0.0396-inch galvanized-steel backing; and with colors, legend, and size required for application.
 2. 1/4-inch grommets in corners for mounting.
 3. Nominal size, 10 by 14 inches.
- E. Warning label and sign shall include, but are not limited to, the following legends:
 1. Multiple Power Source Warning: "DANGER - ELECTRICAL SHOCK HAZARD - EQUIPMENT HAS MULTIPLE POWER SOURCES."
 2. Workspace Clearance Warning: "WARNING - OSHA REGULATION - AREA IN FRONT OF ELECTRICAL EQUIPMENT MUST BE KEPT CLEAR FOR 36 INCHES."

2.7. INSTRUCTION SIGNS

- A. Engraved, laminated acrylic or melamine plastic, minimum 1/16 inch thick for signs up to 20 sq. inches and 1/8 inch thick for larger sizes.
 1. Engraved legend with black letters on white face.
 2. Punched or drilled for mechanical fasteners.
 3. Framed with mitered acrylic molding and arranged for attachment at applicable equipment.
- B. Adhesive Film Label: Machine printed, in black, by thermal transfer or equivalent process. Minimum letter height shall be 3/8 inch.
- C. Adhesive Film Label with Clear Protective Overlay: Machine printed, in black, by thermal transfer or equivalent process. Minimum letter height shall be 3/8 inch. Overlay shall provide a weatherproof and Ultraviolet (UV)-resistant seal for label.

2.8. EQUIPMENT IDENTIFICATION LABELS

- A. Adhesive Film Label: Machine printed, in black, by thermal transfer or equivalent process. Minimum letter height shall be 3/8 inch.
- B. Adhesive Film Label with Clear Protective Overlay: Machine printed, in black, by thermal transfer or equivalent process. Minimum letter height shall be 3/8 inch. Overlay shall provide a weatherproof and UV-resistant seal for label.
- C. Self-Adhesive, Engraved, Laminated Acrylic or Melamine Label: Adhesive backed, with white letters on a dark-gray background. Minimum letter height shall be 3/8 inch.

- D. Engraved, Laminated Acrylic or Melamine Label: Punched or drilled for screw mounting. White letters on a dark-gray background. Minimum letter height shall be 3/8 inch.
- E. Stenciled Legend: In nonfading, waterproof, black ink or paint. Minimum letter height shall be 1 inch.

2.9. CABLE TIES

- A. General-Purpose Cable Ties: Fungus inert, self extinguishing, one piece, self locking, Type 6/6 nylon.
 - 1. Minimum Width: 3/16 inch.
 - 2. Tensile Strength at 73 deg F, According to ASTM D 638: 12,000 psi.
 - 3. Temperature Range: Minus 40 to plus 185 deg F.
 - 4. Color: Black except where used for color-coding.
- B. UV-Stabilized Cable Ties: Fungus inert, designed for continuous exposure to exterior sunlight, self extinguishing, one piece, self locking, Type 6/6 nylon.
 - 1. Minimum Width: 3/16 inch.
 - 2. Tensile Strength at 73 deg F, According to ASTM D 638: 12,000 psi.
 - 3. Temperature Range: Minus 40 to plus 185 deg F.
 - 4. Color: Black.

2.10. MISCELLANEOUS IDENTIFICATION PRODUCTS

- A. Paint: Select paint system applicable for surface material and location (exterior or interior).
- B. Fasteners for Labels and Signs: Self-tapping, stainless-steel screws or stainless-steel machine screws with nuts and flat and lock washers.

PART 3 EXECUTION

3.1. INSTALLATION

- A. Verify identity of each item before installing identification products.
- B. Location: Install identification materials and devices at locations for most convenient viewing without interference with operation and maintenance of equipment.
- C. Apply identification devices to surfaces that require finish after completing finish work.
- D. Self-Adhesive Identification Products: Clean surfaces before application, using materials and methods recommended by manufacturer of identification device.

- E. System Identification Color-Coding Bands for Raceways and Cables: Each color-coding band shall completely encircle cable or conduit. Place adjacent bands of two-color markings in contact, side by side. Locate bands at changes in direction, at penetrations of walls and floors, at 50-foot maximum intervals in straight runs, and at 25-foot maximum intervals in congested areas.
- F. Aluminum Wraparound Marker Labels and Metal Tags: Secure tight to surface of conductor or cable at a location with high visibility and accessibility.
- G. Cable Ties: For attaching tags. Use general-purpose type, except as listed below:
 - 1. Outdoors: UV-stabilized nylon.
- H. Underground-Line Warning Tape: During backfilling of trenches install continuous underground-line warning tape directly above line at 6 to 8 inches below finished grade. Use multiple tapes where width of multiple lines installed in a common trench or concrete envelope exceeds 16 inches overall.
- I. Painted Identification: Comply with requirements in Division 09 painting Sections for surface preparation and paint application.

3.2. IDENTIFICATION SCHEDULE

- A. Accessible Raceways and Metal-Clad Cables, 600 V or Less, for Service, Feeder, and Branch Circuits More Than 50 A, and 120 V to ground: Identify with self-adhesive vinyl tape applied in bands. Install labels at 30-foot maximum intervals.
- B. Power-Circuit Conductor Identification, 600 V or Less: For conductors in vaults, pull and junction boxes, manholes, and handholes, use color-coding conductor tape to identify the phase.
 - 1. Color-Coding for Phase and Voltage Level Identification, 600 V or Less: Use colors listed below for ungrounded service feeder and branch-circuit conductors.
 - a. Color shall be factory applied or field applied for sizes larger than No. 8 American Wire Gauge (AWG), if authorities having jurisdiction permit.
 - b. Colors for 208/120-V Circuits:
 - 1) Phase A: Black.
 - 2) Phase B: Red.
 - 3) Phase C: Blue.
 - c. Field-Applied, Color-Coding Conductor Tape: Apply in half-lapped turns for a minimum distance of 6 inches from terminal points and in boxes where splices or taps are made. Apply last two turns of tape with no tension to prevent possible unwinding. Locate bands to avoid obscuring factory cable markings.
- C. Install instructional sign including the color-code for grounded and ungrounded conductors using adhesive-film-type labels.

- D. Conductors to Be Extended in the Future: Attach marker tape to conductors and list source.
- E. Auxiliary Electrical Systems Conductor Identification: Identify field-installed alarm, control, and signal connections.
 - 1. Identify conductors, cables, and terminals in enclosures and at junctions, terminals, and pull points. Identify by system and circuit designation.
 - 2. Use system of marker tape designations that is uniform and consistent with system used by manufacturer for factory-installed connections.
 - 3. Coordinate identification with Project Drawings, manufacturer's wiring diagrams, and the Operation and Maintenance Manual.
- F. Locations of Underground Lines: Identify with underground-line warning tape for power, lighting, communication, and control wiring and optical fiber cable.
 - 1. Install underground-line warning tape for both direct-buried cables and cables in raceway.
- G. Workspace Indication: Install floor marking tape to show working clearances in the direction of access to live parts. Workspace shall be as required by New York City Electrical Code and OSHA 29 CFR 1926.403 unless otherwise indicated. Do not install at flush-mounted panelboards and similar equipment in finished spaces.
- H. Warning Labels for Indoor Cabinets, Boxes, and Enclosures for Power and Lighting: Self-adhesive warning labels.
 - 1. Comply with OSHA 29 CFR 1910.145.
 - 2. Identify system voltage with black letters on an orange background.
 - 3. Apply to exterior of door, cover, or other access.
 - 4. For equipment with multiple power or control sources, apply to door or cover of equipment including, but not limited to, the following:
 - a. Power transfer switches.
 - b. Controls with external control power connections.
- I. Operating Instruction Signs: Install instruction signs to facilitate proper operation and maintenance of electrical systems and items to which they connect. Install instruction signs with approved legend where instructions are needed for system or equipment operation.
- J. Emergency Operating Instruction Signs: Install instruction signs with white legend on a red background with minimum 3/8-inch- high letters for emergency instructions at equipment used for power transfer.
- K. Equipment Identification Labels: On each unit of equipment, install unique designation label that is consistent with wiring diagrams, schedules, and the Operation and Maintenance Manual. Apply labels to disconnect switches and

protection equipment, central or master units, control panels, control stations, terminal cabinets, and racks of each system. Systems include power, lighting, control, communication, signal, monitoring, and alarm systems unless equipment is provided with its own identification.

1. Labeling Instructions:
 - a. Indoor Equipment: Self-adhesive, engraved, laminated acrylic or melamine label. Unless otherwise indicated, provide a single line of text with 1/2-inch-high letters on 1-1/2-inch-high label; where two lines of text are required, use labels 2 inches high.
 - b. Outdoor Equipment: Engraved, laminated acrylic or melamine label.
 - c. Elevated Components: Increase sizes of labels and letters to those appropriate for viewing from the floor.
 - d. Unless provided with self-adhesive means of attachment, fasten labels with appropriate mechanical fasteners that do not change the International Electrical Testing Association (NEMA) or Nationally Recognized Testing Laboratory (NRTL) rating of the enclosure.

Equipment to Be Labeled:

- e. Panelboards: Typewritten directory of circuits in the location provided by panelboard manufacturer. Panelboard identification shall be self-adhesive, engraved, laminated acrylic or melamine label.
- f. Enclosures and electrical cabinets.
- g. Access doors and panels for concealed electrical items.
- h. Enclosed switches.
- i. Enclosed circuit breakers.
- j. Enclosed controllers.
- k. Contactors.

PART 4

MEASUREMENT AND PAYMENT

No separate payment will be made for work under this Section. The cost of all work under this Section shall be deemed to be included in the cost of other electrical work associated with this project.

**SECTION E 262416
PANELBOARDS****PART 1 - GENERAL****1.1. SUBMITTALS**

- A. Product Data: For each type of panelboard, switching and overcurrent protective device, transient voltage suppression device, accessory, and component indicated. Include dimensions and manufacturers' technical data on features, performance, electrical characteristics, ratings, and finishes.
- B. Shop Drawings: For each panelboard and related equipment.
 - 1. Include dimensioned plans; elevations, sections, and details. Show tabulations of installed devices, equipment features, and ratings.
 - 2. Detail enclosure types and details for types other than National Electrical Manufacturers Association (NEMA) 250, Type 1.
 - 3. Detail bus configuration, current, and voltage ratings.
 - 4. Short-circuit current rating of panelboards and overcurrent protective devices.
 - 5. Include evidence of Nationally Recognized Testing Laboratory (NRTL) listing for series rating of installed devices.
 - 6. Detail features, characteristics, ratings, and factory settings of individual overcurrent protective devices and auxiliary components.
 - 7. Include wiring diagrams for power, signal, and control wiring.
- C. Field Quality Control Reports:
 - 1. Test procedures used.
 - 2. Test results that comply with requirements.
 - 3. Results of failed tests and corrective action taken to achieve test results that comply with requirements.
- D. Panelboard Schedules: For installation in panelboards. Submit final versions after load balancing.
- E. Operation and Maintenance Data: For panelboards and components to include in operation and maintenance manuals. In addition to items specified include the following:
 - 1. Manufacturer's written instructions for testing and adjusting overcurrent protective devices.
 - 2. Time-current curves, including selectable ranges for each type of overcurrent protective device that allows adjustments.

1.2. QUALITY ASSURANCE

1. Source Limitations: Obtain panelboards, overcurrent protective devices, components, and accessories from single source from single manufacturer.
2. Product Selection for Restricted Space: Drawings indicate maximum dimensions for panelboards including clearances between panelboards and adjacent surfaces and other items. Comply with indicated maximum dimensions.
3. Electrical Components, Devices, and Accessories: Listed and labeled as defined in New York City Electrical Code, by a qualified testing agency, and marked for intended location and application.
4. Comply with NEMA PB 1.
5. Comply with New York City Electrical Code.

1.3. DELIVERY, STORAGE, AND HANDLING

- A. Remove loose packing and flammable materials from inside panelboards; install temporary electric heating (250 W per panelboard) to prevent condensation.
- B. Handle and prepare panelboards for installation according to NEMA PB 1.

1.4. PROTECT CONDITIONS

- A. Environmental Limitations
 1. Do not deliver or install panelboards until spaces are enclosed and weather tight, wet work in spaces is complete and dry, work above panelboards is complete.
 2. Rate equipment for continuous operation under the following conditions unless otherwise indicated:
 - a. Ambient Temperature: Not exceeding 23° F to plus 104 ° F.
 - b. Altitude: Not exceeding 6600 feet.

1.5. COORDINATION

- A. Coordinate layout and installation of panelboards and components with other construction that penetrates walls or is supported by them, including electrical and other types of equipment, raceways, piping, encumbrances to workspace clearance requirements, and adjacent surfaces. Maintain required workspace clearances and required clearances for equipment access doors and panels.

1.6. WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace transient voltage suppression devices that fail in materials or workmanship within specified warranty period.
 1. Warranty Period: Five years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1. GENERAL REQUIREMENTS FOR PANELBOARDS

- A. Enclosures: Surface-mounted cabinets.
 - 1. Rated for environmental conditions at installed location.
 - a. Inside Electric Service Cabinet: NEMA 250, Type 3R.
 - 2. Hinged Front Cover: Entire front trim hinged to box and with standard door within hinged trim cover.
 - 3. Gutter Extension and Barrier: Same gage and finish as panelboard enclosure; integral with enclosure body. Arrange to isolate individual panel sections.
 - 4. Finishes:
 - a. Panels and Trim: Steel, factory finished immediately after cleaning and pretreating with manufacturer's standard two-coat, baked-on finish consisting of prime coat and thermosetting topcoat.
 - b. Back Boxes: Same finish as panels and trim.
 - 5. Directory Card: Inside panelboard door, mounted in transparent card holder.
- B. Phase, Neutral, and Ground Buses:
 - 1. Material: Hard-drawn copper, 98 percent conductivity.
 - 2. Equipment Ground Bus: Adequate for feeder and branch-circuit equipment grounding conductors; bonded to box.
- C. Conductor Connectors: Suitable for use with conductor material and sizes.
 - 1. Material: Tin-plated aluminum.
 - 2. Main and Neutral Lugs: Mechanical type.
 - 3. Ground Lugs and Bus-Configured Terminators: Mechanical type.
- D. Service Equipment Label: NRTL labeled for use as service equipment for panelboards or load centers with one or more main service disconnecting and overcurrent protective devices.
- E. Future Devices: Mounting brackets, bus connections, filler plates, and necessary appurtenances required for future installation of devices.
- F. Panelboard Short-Circuit Current Rating: Fully rated to interrupt symmetrical short-circuit current available at terminals.

2.2. LIGHTING AND APPLIANCE BRANCH-CIRCUIT PANELBOARDS

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include the following:
 - a. Eaton Electrical Inc.; Cutler-Hammer Business Unit.
 - b. General Electric Company; GE Consumer & Industrial- Electrical Distribution.
 - c. Siemens Energy & Automation, Inc.
 - d. Square D; a brand of Schneider Electric.
 - e. Or an approved equivalent.
- B. Panelboards: NEMA PB 1, lighting and appliance branch-circuit type.
- C. Branch Overcurrent Protective Devices: Bolt-on circuit breakers, replaceable without disturbing adjacent units.
- D. Contactors in Main Bus: NEMA ICS 2, Class A. mechanically held, general-purpose controller, with same short-circuit interrupting rating as panelboard.
 - 1. External Control-Power Source: 120-V branch circuit.
- E. Doors: Concealed hinges; secured with flush latch with tumbler lock; keyed alike.

2.3. DISCONNECTING AND OVERCURRENT PROTECTIVE DEVICES

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include the following:
 - 1. Eaton Electrical Inc.; Cutler-Hammer Business Unit.
 - 2. General Electric Company; GE Consumer & Industrial - Electrical Distribution.
 - 3. Siemens Energy & Automation, Inc.
 - 4. Square D; a brand of Schneider Electric.
 - 5. Or an approved equivalent.
- B. Molded-Case Circuit Breaker (MCCB): Comply with Underwriters Laboratory (UL) 489, with series-connected rating interrupting capacity to meet available fault currents.
 - 1. Thermal-Magnetic Circuit Breakers: Inverse time-current element for low-level overloads, and instantaneous magnetic trip element for short circuits. Adjustable magnetic trip setting for circuit-breaker frame sizes 250A and larger.

2. Current-Limiting Circuit Breakers: Frame sizes 400 A and smaller; let-through ratings less than NEMA FU 1, RK-5.
3. Ground Fault Circuit Interrupter (GFCI) Circuit Breakers: Single- and two-pole configurations with Class A ground-fault protection (6-mA trip).
4. Ground-Fault Equipment Protection (GFEP) Circuit Breakers: Class B ground fault protection (30-mA trip).
5. Molded-Case Circuit-Breaker (MCCB) Features and Accessories:
 - a. Standard frame sizes, trip ratings, and number of poles.
 - b. Lugs: Mechanical style, suitable for number, size, trip ratings, and conductor materials.
 - c. Ground-Fault Protection: Integrally mounted relay and trip unit with adjustable pickup and time-delay settings, push-to-test feature, and ground-fault indicator.
 - d. Multipole units enclosed in a single housing or factory assembled to operate as a single unit.
 - e. Handle Padlocking Device: Fixed attachment for locking circuit-breaker handle in on or off position.
 - f. Handle Clamp: Loose attachment, for holding circuit-breaker handle in on-position.

2.4. ACCESSORY COMPONENTS AND FEATURES

1. Accessory Set: Include tools and miscellaneous items required for overcurrent protective device test, inspection, maintenance, and operation.

PART 3 - EXECUTION

3.1. EXAMINATION

- A. Receive, inspect, handle, and store panelboards according to NEMA PB 1.1.
- B. Examine panelboards before installation. Reject panelboards that are damaged or rusted or have been subjected to water saturation.
- C. Examine elements and surfaces to receive panelboards for compliance with installation tolerances and other conditions affecting performance of the Work.
- D. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2. INSTALLATION

- A. Install panelboards and accessories according to NEMA PB 1.1.
- B. Mount top of trim 90 inches above finished floor unless otherwise indicated.

- C. Mount panelboard cabinet plumb and rigid without distortion of box. Mount recessed panelboards with fronts uniformly flush with wall finish and mating with back box.
- D. Install overcurrent protective devices and controllers not already factory installed.
- E. Install filler plates in unused spaces.
- F. Arrange conductors in gutters into groups and bundle and wrap with wire ties after completing load balancing.
- G. Comply with National Electrical Contractors Association (NECA) 1.

3.3. IDENTIFICATION

- A. Identify field installed conductors, interconnecting wiring, and components; provide warning signs.
- B. Create a directory to indicate installed circuit loads after balancing panelboard loads; incorporate Owner's final room designations. Obtain approval before installing. Use a computer or typewriter to create directory; handwritten directories are not acceptable.
- C. Panelboard Nameplates: Label each panelboard with a nameplate.
- D. Device Nameplates: Label each branch circuit device in distribution panelboards with a nameplate complying with requirements for identification specified in Division 26 Section "Identification for Electrical Systems."

3.4. FIELD QUALITY CONTROL

- A. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect, test, and adjust components, assemblies, and equipment installations, including connections.
- B. Acceptance Testing Preparation:
 - 1. Test insulation resistance for each panelboard bus, component, connecting supply, feeder, and control circuit.
 - 2. Test continuity of each circuit.
- C. Tests and Inspections:
 - 1. Perform each visual and mechanical inspection and electrical test stated in NETA Acceptance Testing Specification. Certify compliance with test parameters.
 - 2. Correct malfunctioning units on-site, where possible, and retest to demonstrate compliance; otherwise, replace with new units and retest.
 - 3. Perform the following infrared scan tests and inspections and prepare reports:

- a. Initial Infrared Scanning: After Substantial Completion, but not more than 60 days after Final Acceptance, perform an infrared scan of each panelboard. Remove front panels so joints and connections are accessible to portable scanner.
 - b. Instruments and Equipment: Use an infrared scanning device designed to measure temperature or to detect significant deviations from normal values. Provide calibration record for device.
- D. Panelboards will be considered defective if they do not pass tests and inspections.
 - E. Prepare test and inspection reports, including a certified report that identifies panelboards included and that describes scanning results. Include notation of deficiencies detected, remedial action taken and observations after remedial action.

3.5. ADJUSTING

- A. Adjust moving parts and operable component to function smoothly, and lubricate as recommended by manufacturer.

3.6. PROTECTION

- A. Temporary Heating: Apply temporary heat to maintain temperature according to manufacturer's written instructions.

PART 4 - MEASUREMENT AND PAYMENT

4.1. MEASUREMENT

The quantity of Panelboards of each type to be paid for under ITEM E 262416 A shall be the actual number of panelboards of each type installed to complete the work, to the satisfaction of the Engineer.

4.2. PRICE TO COVER

The unit price bid per panelboard of each type shall cover the cost of furnishing all labor, materials, equipment, insurance, and incidentals to complete the work including, but not limited to, furnishing and placing the panelboard, and providing and installing the associated protective devices, circuit breakers, adjusting and load balancing, and testing and inspecting, all in accordance with the Contract Drawings, the specifications, and the directions of the Engineer

Payment will be made under:

Item No.	Item	Pay Unit
E 262416 A	PANELBOARDS, 100 A 42 POLE WITH (42) IP-20A CB	EACH

**SECTION E 262713
ELECTRICITY METERING**

PART 1 - GENERAL

1.1. SUMMARY

Section includes equipment for electricity metering by utility company.

1.2. SUBMITTALS

Product Data: For each type of product indicated.

Shop Drawings: For electricity-metering equipment.

Dimensioned plans and sections or elevation layouts.

1.3. QUALITY ASSURANCE

Electrical Components, Devices, and Accessories: Listed and labeled as defined in New York City Electrical Code, by a qualified testing agency, and marked for intended location and application.

1.4. COORDINATION

Electrical Service Connections: Coordinate with utility companies and components they furnish as follows:

Comply with requirements of utilities providing electrical power services.

Coordinate installation and connection of utilities and services, including provision for electricity-metering components.

PART 2 - PRODUCTS

2.1. EQUIPMENT FOR ELECTRICITY METERING BY UTILITY COMPANY

Meters will be furnished by utility company.

Meter Sockets: Comply with requirements of electrical-power utility company.

Comply with requirements of utility company for meter center.

Housing: National Electrical Manufacturers Association (NEMA) 250, Type 3R enclosure.

Minimum Short-Circuit Rating: 42,000 A symmetrical at rated voltage.

Main Disconnect Device: Circuit breaker, series-combination rated for use with downstream feeder and branch circuit breakers.

Meter Socket: Rating coordinated with indicated tenant feeder circuit rating.

PART 3 - EXECUTION

3.1. INSTALLATION

Comply with equipment installation requirements in National Electrical Contractors Association (NECA) 1.

Install meters furnished by utility company. Install raceways and equipment according to utility company's written requirements. Provide empty conduits for metering leads and extend grounding connections as required by utility company.

3.2. IDENTIFICATION

Comply with requirements for identification.

Series Combination Warning Label: Self-adhesive type, with text as required by New York City Electrical Code.

Equipment Identification Labels: Adhesive film labels with clear protective overlay. For residential meters, provide an additional card holder suitable for typewritten card with occupant's name.

3.3. FIELD QUALITY CONTROL

1. Perform tests and inspections.
2. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect components, assemblies, and equipment installations, including connections, and to assist in testing.
3. Tests and Inspections:
 4. Connect a load of known kilowatt rating, 1.5 kW minimum, to a circuit supplied by metered feeder.
 5. Turn off circuits supplied by metered feeder and secure them in off condition.
 6. Run test load continuously for eight hours minimum, or longer, to obtain a measurable meter indication. Use test-load placement and setting that ensures continuous, safe operation.
 7. Check and record meter reading at end of test period and compare with actual electricity used, based on test-load rating, duration of test, and sample measurements of supply voltage at test-load connection. Record test results.
8. Electricity metering will be considered defective if it does not pass tests and inspections.
9. Prepare test and inspection reports.

PART 4 - MEASUREMENT AND PAYMENT

4.1. MEASUREMENT

The quantity to be measured for payment shall be the number of EACH type of Electricity Meter actually installed to complete the work, to the satisfaction of the Engineer.

Meters will be furnished by utility company.

4.2. PRICE TO COVER

The price bid shall be a unit price for EACH type of Electricity Meter installation and shall include the cost of all labor, materials, equipment, insurance, and any incidental expenses necessary, including, but not limited to, installation of meter, meter equipment and socket, labels, testing and inspections, and coordination with the utility providing the meter, in accordance with the plans, specifications, and directions of the Engineer.

Payment will be made under:

Item No.	Item	Pay Unit
E 262713 B	ELECTRICITY METERING, 200 A UTILITY METER	EACH

**SECTION E 262726
WIRING DEVICES****PART 1 – GENERAL****1.1 RELATED DOCUMENTS**

- A. Drawings and general conditions of the Contract apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
1. Receptacles, receptacles with integral GFCI, and associated device plates.
 2. Power pedestals.
 3. Toggle switches.
 4. Spring wound mechanical timers.
 5. Utility light fixtures.
 6. Electric heaters.

1.3 DEFINITIONS

- A. GFCI: Ground-fault circuit interrupter.
- B. Pigtail: Short lead used to connect a device to a branch-circuit conductor.

1.4 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Shop Drawings: List of legends and description of materials and process used for premarking wall plates.
- C. Shop Drawings: Installation and wiring details of GFCI receptacles and lockable cover box for each type of streetlight pole as indicated on Contract Drawing and as directed by Engineer.
- D. Field quality-control test reports.
- E. Operation and Maintenance Data: For wiring devices to include in all manufacturers' packing label warnings and instruction manuals that include labeling conditions.

1.5 QUALITY ASSURANCE

- A. Source Limitations: Obtain each type of wiring device and associated wall plate through one source from a single manufacturer. Insofar as they are available, obtain all wiring devices and associated wall plates from a single manufacturer and one source.
- B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in the New York City Electrical Code, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- C. Comply with the New York City Electrical Code.

- D. Obtain NYC DOT Street Lighting approval for installation methods of GFCI outlets and lockable cover box for each type of street light pole as described in Shop Drawings Submittals 1.4C herein.

PART 2 – PRODUCTS

2.1. MANUFACTURERS

- A. Manufacturers' Names: Shortened versions (shown in parentheses) of the following manufacturers' names are used in other articles:

1. Cooper Wiring Devices; a division of Cooper Industries, Inc. (Cooper).
2. Hubbell Incorporated; Wiring Device-Kellems (Hubbell).
3. Leviton Mfg. Company Inc. (Leviton).
4. Pass & Seymour/ Legrand; Wiring Devices & Accessories (Pass & Seymour).
5. Or an approved equivalent manufacturer.

2.2. EVENT BOX RECEPTACLES

A. IN-LINE GFCI

1. General Description: Straight blade In line GFCI, 125V, 20 A. Comply with National Electrical Manufacturers Association (NEMA) 5-20, Underwriters Laboratory (UL) 498, and UL 943, Class A, and include indicator light that is lighted when device is tripped.

Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include the following:

- a. Cooper; GFI12M266
- b. Pass & Seymour; 2094TL2A
- c. Hubbell; GFP3C20MTL
- d. Leviton; 69891-3
- e. or an approved equivalent.

B. Duplex GFCI Convenience Receptacles, 125 V, 20 A:

1. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include the following:
 - a. Cooper; GF20.
 - b. Pass & Seymour; 2084.
 - c. Hubbell;
 - d. Leviton;
 - e. or approved equivalent.

2.3. POWER PEDESTALS

- A. Outdoor power pedestals housing two duplex GFI receptacles: Comply with UL requirements.
 - 1. Material: 14 ga. polished stainless steel.
 - 2. Overall Length: 42 inches
 - 3. Cover: Integral, top hinged cover, self closing and can be locked whether in use or not.
 - 4. Base: Open base with wire slot openings on each side. To be mounted on grade in unfinished locations.
 - 5. Provide with ground conductor terminal.
 - 6. Accessory Opening: 2 gang with removable device mounting plate.
 - 7. Nema 250, complying with type 3R weather-resistant.
 - 8. Locks for pedestals shall be as recommendation by the pedestal manufacturer. Locks for all pedestals shall be keyed alike. The Contractor shall furnish two keys for each lock.

2.4. TOGGLE SWITCHES

- A. Comply with NEMA WD 1, UL 20, and Federal Specification (FS) W-S-896.
- B. Switches, Single Pole, 120/277 V, 20 A:
 - 1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include the following:
 - a. Cooper; AH1221
 - b. Hubbell; HBL1221
 - c. Leviton; 1221-2
 - d. Pass & Seymour; CSB20AC1
 - e. or approved equivalent.

2.5. SPRING WOUND MECHANICAL TIMER SWITCHES

- A. Comply with NEMA WD 1.
- B. Timer switches, single pole, single throw, 120V, 20A, 2 hour range, spiral time scale:
 - 1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include the following:
 - a. Intermatic; FF2H.
 - b. Cooper.
 - c. Hubbell.
 - d. Leviton.
 - e. Pass & Seymour.
 - f. or approved equivalent.

2.6. UTILITY LIGHT FIXTURES

- A. Comply with UL 1598.

- B. Utility vapor tight incandescent fixture with die-cast aluminum housing, heavy duty prismatic glass globe with cage guard, 60 watt lamp, listed for wet locations.
 - 1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include the following:
 - a. Lithonia Lighting; VW1501.
 - b. Hubbell.
 - c. Cooper.
 - d. or approved equivalent.

2.7. ELECTRICAL HEATER

- A. Comply with UL requirements.
- B. Electric Heater suitable for Reduced Pressure Zone (RPZ) vault freeze protection, 24 ga galvanized steel enclosure, corrosive resistant grey polyester powder paint coating, integral thermostat with temperature range of 40 deg F to 70 deg F, 120V.
 - 1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include the following:
 - a. Berko; WHT500.
 - b. Vulcan.
 - c. Indeeco.
 - d. or approved equivalent.

2.8. WALL PLATES

- A. Single and combination types to match corresponding wiring devices.
 - 1. Plate-Securing Screws: Metal with head color to match plate finish.
 - 2. Material: 0.05-inch - thick, anodized aluminum.
- B. Wet-Location, Weatherproof Cover Plates: NEMA 250, complying with type 3R weather-resistant, die-cast aluminum with lockable cover.

2.9. LOCKABLE COVER BOXES

- A. Vertical mounting type for installation on davit poles, in RPZ vaults, in enclosure and all other locations other than on power pedestals unless otherwise noted.
 - 1. Complete with gasket, mounting hardware, and GFCI receptacle insert.
 - 2. Material: Diecast powder coated aluminum.
 - 3. Lockable whether in use or not.

4. Locks for cover boxes shall be as recommendation by the box manufacturer. Locks for all boxes shall be keyed alike. The Contractor shall furnish one key for each lock.
- B. Weatherproof Lockable Cover Boxes: Meets NEC 406.8(B) (1) for receptacles in wet locations, and NEMA 3R rating.

2.10. FINISHES

- A. Color: Wiring device catalog numbers in Section Text do not designate device color.
1. Wiring Devices Connected to Normal Power System: As selected by the Engineer, unless otherwise indicated or required by the New York City Electrical Code or device listing.

PART 3 – EXECUTION

3.1. INSTALLATION

- A. Comply with NECA 1, including the mounting heights listed in that standard, unless otherwise noted.
- B. Coordination with Other Trades:
1. Take steps to insure that devices and their boxes are protected. Do not place wall finish materials over device boxes and do not cut holes for boxes with routers that are guided by riding against outside of the boxes.
 2. Keep outlet boxes free of plaster, drywall joint compound, mortar, cement, concrete, dust, paint, and other material that may contaminate the raceway system, conductors, and cables.
 3. Install device boxes in brick or block walls so that the cover plate does not cross a joint unless the joint is troweled flush with the face of the wall.
 4. Install wiring devices after all wall preparation, including painting, is complete.
- C. Conductors:
1. Do not strip insulation from conductors until just before they are spliced or terminated on devices.
 2. Strip insulation evenly around the conductor using tools designed for the purpose. Avoid scoring or nicking of solid wire or cutting strands from stranded wire.
 3. The length of free conductors at outlets for devices shall meet provisions of the New York City Electrical Code, Article 300, without pigtails.
 4. Existing Conductors:
 - a. Cut back and pigtail, or replace all damaged conductors.
 - b. Straighten conductors that remain and remove corrosion and foreign matter.

- c. Pigtailing existing conductors is permitted provided the outlet box is large enough.
- D. Device Installation:
1. Replace all devices that have been in temporary use during construction or that show signs that they were installed before finishing operations were complete.
 2. Keep each wiring device in its package or otherwise protected until it is time to connect conductors.
 3. Do not remove surface protection, such as plastic film and smudge covers, until the last possible moment.
 4. Connect devices to branch circuits using pigtails that are not less than 6 inches (152 mm) in length.
 5. When there is a choice, use side wiring with binding-head screw terminals. Wrap solid conductor tightly clockwise, 2/3 to 3/4 of the way around terminal screw.
 6. Use a torque screwdriver when a torque is recommended or required by the manufacturer.
 7. When conductors larger than No. 12 American wire gauge (AWG) are installed on 15- or 20-A circuits, splice No. 12 AWG pigtails for device connections.
 8. Tighten unused terminal screws on the device.
 9. When mounting into metal boxes, remove the fiber or plastic washers used to hold device mounting screws in yokes, allowing metal-to-metal contact.
- E. Receptacle Orientation:
1. Install ground pin of vertically mounted receptacles down, and on horizontally mounted receptacles to the right.
- F. Device Plates: Do not use oversized or extra-deep plates. Repair wall finishes and remount outlet boxes when standard device plates do not fit flush or do not cover rough wall opening.
- G. Arrangement of Devices: Unless otherwise indicated, mount flush, with long dimension vertical and with grounding terminal of receptacles on top. Group adjacent switches under single, multigang wall plates.
- H. Adjust locations of outlets and service poles as may be required.
- I. Power Pedestals: Distance between grade and the bottom of the GFCI receptacles shall be 12 inches minimum. Power pedestals shall be installed on a concrete base as per the Contract Drawings. Concrete shall comply with the requirements of the New York City Department of Transportation (NYCDOT) Standard Highway Specifications, **Section**

3.05, Class B-32, Type IIA, and the cost shall be deemed included under Item E 262726 B – Power Pedestal.

- J. Lockable Cover Boxes: To be installed in davit poles as per the manufactures recommendations.
- K. GFCI Receptacles: To be installed at location shown on the Contract Drawings. The Contractor shall submit installation method of GFCI outlet and lockable cover box to NYCDOT Street lighting for approval. Once installed, the Contractor shall obtain approval of the NYCDOT Borough Street Lighting Inspector.”

3.2. FIELD QUALITY CONTROL

- A. Perform tests and inspections and prepare test reports.
 - 1. Test Instruments: Use instruments that comply with UL 1436.
 - 2. Test Instrument for Convenience Receptacles: Digital wiring analyzer with digital readout or illuminated LED indicators of measurement.
 - 3. Installation of GFCI outlets and lockable cover boxes shall be inspected and approved by NYC DOT Street Lighting Borough Superintendent or Inspector providing written report to the Engineer.
- B. Tests for Convenience Receptacles:
 - 1. Line Voltage: Acceptable range is 105 to 132 V.
 - 2. Percent Voltage Drop under 15-A Load: A value of 6 percent or higher is not acceptable.
 - 3. Ground Impedance: Values of up to 2 ohms are acceptable.
 - 4. GFCI Trip: Test for tripping values specified in UL 1436 and UL 943.
 - 5. Using the test plug, verify that the device and its outlet box are securely mounted.
 - 6. The tests shall be diagnostic, indicating damaged conductors, high resistance at the circuit breaker, poor connections, inadequate fault current path, defective devices, or similar problems. Correct circuit conditions, remove malfunctioning units and replace with new ones, and retest as specified above.

PART – 4 MEASUREMENT AND PAYMENT

4.1. MEASUREMENT

- A. The quantity of GFCI Receptacles to be paid for under Item E 262726 A shall be the actual number of GFCI receptacles, installed to complete the work, to the satisfaction of the Engineer.
- B. The quantity of Power Pedestals to be paid for under Item E 262726 B shall be the actual number of power pedestals installed to complete the work, to the satisfaction of the Engineer.
- C. The quantity of Toggle Switches to be paid for under Item E 262726 C shall be the actual number of Toggle Switches, installed to complete the work, to the satisfaction of the Engineer.

- D. The quantity of Spring Wound Mechanical Timers to be paid for under Item 262726 D shall be the actual number of Spring Wound Mechanical Timers, installed to complete the work, to the satisfaction of the Engineer.
- E. The quantity of Utility Light Fixtures to be paid for under Item E 262726 E shall be the actual number of Utility Light Fixtures, installed to complete the work, to the satisfaction of the Engineer.
- F. The quantity of ELECTRIC HEATERS to be paid for under Item E 262726 F shall be the actual number of Electric Heaters, installed to complete the work, to the satisfaction of the Engineer.
- G. The quantity of EVENT BOX RECEPTACLES to be paid for under Item E 262726 G shall be the actual number of Electric Heaters, installed to complete the work, to the satisfaction of the Engineer.

4.2. PRICES TO COVER

- A. The unit price bid per GFCI Receptacle, under Item E 262726 A, shall cover the cost of furnishing all labor, materials, equipment, insurance, and incidentals to complete the work including, but not limited to, furnishing and placing the GFCI receptacle, associated hardware, back boxes, cover plates, lockable cover boxes, keys, testing, and coordination, all in accordance with the Contract Drawings, the specifications, and the directions of the Engineer.
- B. The unit price bid per Power Pedestal, under Item E 262726 B, shall cover the cost of furnishing all labor, materials, equipment, insurance, and incidentals to complete the work including, but not limited to, furnishing and placing the power pedestal, associated hardware, concrete foundation, testing, and coordination, all in accordance with the Contract Drawings, the specifications, and the directions of the Engineer.
- C. The unit price bid per Toggle Switch, under Item E 262726 C, shall cover the cost of furnishing all labor, materials, equipment, insurance, and incidentals to complete the work including, but not limited to, furnishing and placing the toggle switch, associated hardware, back boxes, cover plates, cover boxes, testing, and coordination, all in accordance with the Contract Drawings, the specifications, and the directions of the Engineer.
- D. The unit price bid per Spring Wound Mechanical Timer Switch, under Item E 262726 D, shall cover the cost of furnishing all labor, materials, equipment, insurance, and incidentals to complete the work including, but not limited to, furnishing and placing the Spring Wound Mechanical Timer Switch, associated hardware, back boxes, cover plates, cover boxes, testing, and coordination, all in accordance with the Contract Drawings, the specifications, and the directions of the Engineer.
- E. The unit price bid per Utility Light Fixture, under Item E 262726 E, shall cover the cost of furnishing all labor, materials, equipment, insurance, and incidentals to complete the work including, but not limited to, furnishing and placing the Utility Light Fixture, associated hardware, back boxes, lamps, testing, and coordination, all in accordance with the Contract Drawings, the specifications, and the directions of the Engineer.
- F. The unit price bid per Electric Heater, under Item E 262726 F, shall cover the cost of furnishing all labor, materials, equipment, insurance, and incidentals to complete the

work including, but not limited to, furnishing and placing the Electric Heater, associated hardware, junction boxes, testing, and coordination, all in accordance with the Contract Drawings, the specifications, and the directions of the Engineer.

- G. The unit price bid per Event Box Receptacles, under Item E 262726 G, shall cover the cost of furnishing all labor, materials, equipment, insurance, and incidentals to complete the work including, but not limited to, furnishing and placing the Electric Heater, associated hardware, junction boxes, testing, and coordination, all in accordance with the Contract Drawings, the specifications, and the directions of the Engineer.

Payment will be made under:

Item No.	Item	Pay Unit
E 262726 A	GFCI RECEPTACLE (DUPLEX)	EACH
E 262726 B	POWER PEDESTAL	EACH
E 262726 C	TOGGLE SWITCH	EACH
E 262726 D	SPRING WOUND MECHANICAL TIMER SWITCH	EACH
E 262726 E	UTILITY LIGHT FIXTURE	EACH
E 262726 F	ELECTRIC HEATER	EACH
E 262726 E	UTILITY LIGHT FIXTURE	EACH
E 262726 G	EVENT BOX RECEPTACLES (20A)	EACH

SECTION E 262816 A**ENCLOSED SWITCH, FUSED, 200 A****PART 1 - GENERAL****1.1. SUMMARY****A. Section Includes:**

1. Fusible switches

1.2. DEFINITIONS

- A. NC: Normally closed.
- B. NO: Normally open.
- C. SPDT: Single pole, double throw.

1.3. SUBMITTALS

- A. Product Data: For each type of enclosed switch, circuit breaker, accessory, and component indicated. Include dimensioned elevations, sections, weights, and manufacturers' technical data on features, performance, electrical characteristics, ratings, accessories, and finishes.
 1. Enclosure types and details for types other than NEMA 250, Type 1.
 2. Current and voltage ratings.
 3. Short-circuit current ratings (interrupting and withstand, as appropriate).
 4. Include evidence of NRTL listing for series rating of installed devices.
 5. Detail features, characteristics, ratings, and factory settings of individual overcurrent protective devices, accessories, and auxiliary components.
- B. Shop Drawings: For enclosed switches and circuit breakers. Include plans, elevations, sections, details, and attachments to other work.
 1. Wiring Diagrams: For power, signal, and control wiring.
- C. Field quality control reports.
 1. Test procedures used.
 2. Test results that comply with requirements.
 3. Results of failed tests and corrective action taken to achieve test results that comply with requirements.
- D. Manufacturer's field service report.

- E. Operation and Maintenance Data: For enclosed switches and circuit breakers to include in emergency, operation, and maintenance manuals.
 - 1. Manufacturer's written instructions for testing and adjusting enclosed switches and circuit breakers.
- F. Time-current coordination curves (average melt) for each type and rating of overcurrent protective device; include selectable ranges for each type of overcurrent protective device. Submit on translucent log-log graph paper.

1.4. QUALITY ASSURANCE

- A. Source Limitations: Obtain enclosed switches and circuit breakers, overcurrent protective devices, components, and accessories, within same product category, from single source from single manufacturer.
- B. Product Selection for Restricted Space: Drawings indicate maximum dimensions for enclosed switches and circuit breakers, including clearances between enclosures, and adjacent surfaces and other items. Comply with indicated maximum dimensions.
- C. Electrical Components, Devices, and Accessories: Listed and labeled as defined in New York City Electrical Code, by a qualified testing agency, and marked for intended location and application.
- D. Comply with New York City Electrical Code.

1.5. PROJECT CONDITIONS

- A. Environmental Limitations: Rate equipment for continuous operation under the following conditions unless otherwise indicated:
 - 1. Ambient Temperature: Not less than minus 22° F and not exceeding 104° F.
 - 2. Altitude: Not exceeding 6600 feet.

1.6. COORDINATION

- 1. Coordinate layout and installation of switches, circuit breakers, and components with equipment served and adjacent surfaces. Maintain required workspace clearances and required clearances for equipment access doors and panels.

PART 2 - PRODUCTS

2.1. FUSIBLE SWITCHES

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include the following:
 - 1. Eaton Electrical Inc.; Cutler-Hammer Business Unit.

2. General Electric Company; GE Consumer & Industrial - Electrical Distribution.
 3. Siemens Energy & Automation, Inc.
 4. Square D; a brand of Schneider Electric.
 5. Or an approved equivalent.
- B. Type HD, Heavy Duty, Single Throw, 600-V ac, 1200 A and Smaller: UL 98 and NEMA KS 1, horsepower rated, with clips or bolt pads to accommodate specified fuses, lockable handle with capability to accept three padlocks, and interlocked with cover in closed position.
- C. Accessories:
1. Equipment Ground Kit: Internally mounted and labeled for copper and aluminum ground conductors.
 2. Neutral Kit: Internally mounted; insulated, capable of being grounded and bonded; labeled for copper and aluminum neutral conductors.
 3. Class R Fuse Kit: Provides rejection of other fuse types when Class R fuses are specified.
 4. Lugs: Mechanical type, suitable for number, size, and conductor material.
 5. Service-Rated Switches: Labeled for use as service equipment.

2.2. ENCLOSURES

- A. Enclosed Switches and Circuit Breakers: NEMA AB 1, NEMA KS 1, NEMA 250, and UL 50, to comply with environmental conditions at installed location.
1. Outdoor Locations: NEMA 250, Type 3R.

PART 3 - EXECUTION

3.1. EXAMINATION

- A. Examine elements and surfaces to receive enclosed switches and circuit breakers for compliance with installation tolerances and other conditions affecting performance of the Work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2. INSTALLATION

- A. Install individual wall-mounted switches and circuit breakers with tops at uniform height unless otherwise indicated.
- B. Comply with mounting and anchoring requirements.

- C. Temporary Lifting Provisions: Remove temporary lifting eyes, channels, and brackets and temporary blocking of moving parts from enclosures and components.
- D. Install fuses in fusible devices.
- E. Comply with NECA 1.

3.3. IDENTIFICATION

- A. Comply with requirements in Division 26 Section "Identification for Electrical Systems."
 - 1. Identify field installed conductors, interconnecting wiring, and components; provide warning signs.
 - 2. Label each enclosure with engraved metal or laminated-plastic nameplate.

3.4. FIELD QUALITY CONTROL

- A. Perform tests and inspections.
 - 1. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect components, assemblies, and equipment installations, including connections, and to assist in testing.
- B. Acceptance Testing Preparation:
 - 1. Test insulation resistance for each enclosed switch and circuit breaker, component, connecting supply, feeder, and control circuit.
 - 2. Test continuity of each circuit.
- C. Tests and Inspections:
 - 1. Perform each visual and mechanical inspection and electrical test stated in NETA Acceptance Testing Specification. Certify compliance with test parameters.
 - 2. Correct malfunctioning units on-site, where possible, and retest to demonstrate compliance; otherwise, replace with new units and retest.
 - 3. Test and adjust controls, remote monitoring, and safeties. Replace damaged and malfunctioning controls and equipment.
- D. Enclosed switches and circuit breakers will be considered defective if they do not pass tests and inspections.
- E. Prepare test and inspection reports, including a certified report that identifies enclosed switches and circuit breakers and that describes scanning results. Include notation of deficiencies detected, remedial action taken and observations after remedial action.

3.5.ADJUSTING

- A. Adjust moving parts and operable components to function smoothly, and lubricate as recommended by manufacturer.

PART 4 - MEASUREMENT AND PAYMENT

4.1. MEASUREMENT

- A. The quantity of Enclosed Switches of each type to be paid for under ITEM E 262816 A shall be the actual number of enclosed switches of each type installed to complete the work, to the satisfaction of the Engineer.

4.2. PRICE TO COVER

- A. The unit price bid per enclosed switch of each type shall cover the cost of furnishing all labor, materials, equipment, insurance, and incidentals to complete the work including, but not limited to, furnishing and placing the enclosed switch, and providing and installing the associated protective devices, fuses, hardware, adjusting, testing and inspecting, all in accordance with the Contract Drawings, the specifications, and the directions of the Engineer.

Payment will be made under:

Item No.	Item	Pay Unit
E 262816 A	ENCLOSED SWITCH, FUSED, 200A	EACH

U - PAGES

SECTION U VERSION 2.0

NOTICE

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

(NO TEXT ON THIS PAGE)

SECTION U VERSION 2.0

DATED: March 9, 2015

1. The Contractor shall be responsible for compliance with all the provisions of the following Sections and Schedules, which are hereby made a part of the original contract documents:
 - A. "SECTION U: Additional Contract Requirements Applying to Work Performed in the Presence of Privately Owned Utility Facilities" (Pages U-3 through U-13)
 - B. Schedule U-1 (Page U-14)
 - C. Schedules U-2 listing scope of utility interferences is no longer included in City contract. Such information will be part of Interference Agreement between Utility Operator and Contractor.
 - D. Section U-3 Page U-15 (as per the Private Utilities reference document for SECTION U called "CET SPECIFICATIONS AND SKETCHES", dated November 2010).
2. Each facility operator shall provide inspectors at the work site to inspect methods of interference work, verify quantities and items of Utility Work, and coordinate all phases of the facility operator operations.
3. In addition, the following statements are made to provide clarification of various paragraphs under Section U:
 - A. Section U, ¶3, requires the Contractor to immediately commence negotiations with each Company for an Interference Agreement under which the Company will compensate the Contractor for any Interference Work which the Company does not elect to perform with its own forces or by specialty contractors retained by the Company. Thus the Contractor is on notice that its work under the Contract may be affected by Interference Work performed by (a) the Contractor pursuant to a separate Interference Agreement with the Company, (b) the Company, or (c) partly by each.
 - B. The City has no contract with any of the Companies for work on or adjacent to the site of work under this Contract, and the Companies are not "Other Contractors" as defined for the purposes of this Contract. The Contractor is reminded, however, that pursuant to Section U, ¶3, the City will not compensate the Contractor for any direct and/or indirect costs related to Interference Work, regardless of whether such Interference Work is covered by an Interference Agreement between the Contractor and the Company or is performed by the

Company using its own forces or by specialty contractors retained by the Company.

- C. Section U, ¶13, provides that the provisions of Section U are material provisions of the Contract and that the Contractor's failure to comply with the procedures set forth in Section U are sufficient for the Commissioner to declare the Contractor in default pursuant to Article 48 of the Contract.

Pursuant to this Amendment, the Contractor is informed that the Performance Bond required of the Contractor pursuant to the Contract is not deemed to guarantee performance of any of the Interference Work.

Section U: Additional Contract Requirements Applicable to Work Performed in the Presence of Privately Owned Utility Facilities

The Contractor is hereby notified that pursuant to the law and franchise agreements issued by the City, certain private utility and public service companies named in Schedule U-1 ("the Companies") own and/or operate surface and/or subsurface facilities within the limits of this contract. The existence of these facilities impacts the productivity of the City work called for in the contract. In order to improve coordination of the City construction with the private utility facilities owned and/or operated by the Companies named in Schedule U-1, Article 1.06.30 of the Standard Highway Specifications of the New York City Department of Transportation, Dated August 1, 2015; and/or Articles 10.15 through 10.18 of the Standard Sewer and Water Main Specifications of the New York City Department of Environmental Protection, Dated July 1, 2014; as applicable, are amended and will be implemented as follows:

1. Means and methods for City work:

- a) The Contractor is hereby notified that the utility interferences may impact the performance of, and/or interferes with, City work. The contractor will be required to perform such utility work as directed by the Resident Engineer in order to clear all utility interferences from the project site as required for satisfactory completion of City work within specified contract schedule.
- b) In areas serviced by overhead electric system, the contractor understands and by bidding for this contract agrees that he/she will be required to perform the public work in the presence of energized electrical overhead lines and appurtenances located in areas adjacent and/or within the project area. As a consequence he/she will select means and method of construction appropriate to maintain the safety clearances required or as permitted by electric operators in order to avoid damaging the insulation or shielding of these lines and also to prevent knocking them down.

2. Field inspection prior to construction:

Prior to the start of any contract work in areas serviced by overhead electric lines, and after the award to the apparent low bidder for this contract, the contractor must request a field walk of the project area along with the operator of the overhead electrical facilities and the DDC

Engineer-In-Charge. At that time the facility operator will confirm the type and condition of the overhead electrical lines and the sufficiency of their insulating properties with respect to the means and methods proposed by the contractor. The contractor must be prepared to describe in enough details his/her proposed means and methods of construction operations in order to anticipate the likelihood that electric lines insulation would be cut or otherwise compromised. Also such details will allow the facility operator to anticipate the need for added insulation and/or shielding of non-insulated lines.

3. *Compensation for interference work:*

Compensation for Interference Work is a matter of adjustment between the Contractor and each private utility company located within the limits of the project area and whose utility facilities are affected by City contract work. In particular, the City will not compensate the Contractor for any direct and/or indirect costs related to Interference Work, including, but not limited to, lost profit, increased overhead, or any other impact costs. Upon receipt of a Notice of Award from the City, the Contractor shall immediately commence negotiations with each of the Companies concerning the manner in which and the price for which the Contractor, through its own forces or by others hired by it, will perform and be paid by the Company for all necessary Interference Work as defined above, and at known locations of City contract work, that the Company(ies) choose(s) not to perform with its(their) own forces or by specialty Contractors hired by it (them) (as per "Interference Agreement"). (Specialty contractors' work is limited to (i) insulation installation and removal, (ii) live gas and steam work, (iii) cleanup and disposal of hazardous materials, (iv) splicing live electrical and telecommunications facilities, and (v) work not traditionally performed by general construction contractors.

4. *Interference Agreement:*

1. Although the parties may negotiate an Interference Agreement in any format or manner they deem fit, the Contractor is hereby advised that the Companies have indicated to the City that they will agree to compensate the Contractor on a unit price basis for Types of Interferences encountered on this Contract in accordance to the Private Utilities reference document for SECTION U called "CET SPECIFICATIONS AND SKETCHES", dated November 2010, copy of which is available on demand.

2. The Contractor shall notify the City upon concluding an Interference Agreement with each of the Companies.

5. *City contract work to continue without Interference Agreement :*

If, prior to the start of construction, as directed by the City's Order to work / Notice To Proceed (OTW/ NTP) date any of the Companies and the Contractor have not concluded an Interference Agreement as described above, then the City shall issue a written "48 Hours notice to Public Corporation" as prescribed by the City of New York Administrative Code", commonly referred to as "Order-Outs" and City construction will proceed as ordered and the Contractor will be directed by the Resident Engineer to perform the City work on Time, Material and Equipment basis (T&M) as specified in standard City contract agreement Article 26.2. T&M records will include identification of types of utility facilities interfering with City work, utility facility owners, specifying the nature and quantity of any materials, plant and equipment furnished or used in connection with the performance of such work and crew size, such as: name and number of each worker employed on such work. T&M records will also indicate the hours of active time, standby time and idle time. The Company (ies) and the Contractor will maintain separate records of the actual quantity and cost of labor, materials, and equipment expended, and will provide copies of this information to the other party on a daily basis for reconciliation. These T&M records along with cost evaluations will be submitted daily to the Resident Engineer for review and approval. The total cost of City work will be based on quantity of work performed multiplied by unit price contract bid items. The total interference cost will be calculated as the difference between the total T&M cost and total cost for City work. The Resident Engineer will conduct a monthly reconciliation session of the daily T&M records with the affected Company (ies) and contractor. If the contractor and affected utility companies cannot reconcile their T&M records, by the last day of each month, then the Resident Engineer will submit the approved City's T&M records along with total cost evaluations to the DDC Director of Construction who will review these records and recommend approval and validity certification by the DDC Deputy Commissioner.

1. Copies of the DDC approved and certified T&M records will then be transmitted by the DDC to the contractor and the utility companies. These certified records may be used by the contractor for compensation claims against the responsible private facility

owners, or may be used by any party as supporting documentation in dispute regarding compensation for performing Interference Work. The contractor will be required to perform City work while invoices are submitted by the contractor to the Utility companies for payment within 30 days, or while compensation disputes between contractor and affected company (ies) are submitted to Binding Arbitration process described in Paragraph 9.

2. All issues related to utility work and/ or delays due to compensation disputes or claims against utility companies are not allowable as justification for granting contract time extensions or delay claims against the City. The City may assess liquidated damages specified in the contract for net overall delays suffered by City contract work as a result of utility issues, disputes and claims.
3. The standard City contract dispute resolution process specified in Article 27 "Presentation of disputes to Commissioner", of the standard City contract agreement is not applicable to any disputes related to utility work and/ or compensation for such work or claim against utility companies. Utility work issues, disputes and claims may only be submitted to Binding Arbitration process described in Paragraph 9.
4. The contractor will notify the Resident Engineer when utility work that require the intervention of company utility specialty crews causes excessive contractor's labor and equipment standby or idleness and, thereby jeopardizing the City project schedule. The Resident Engineer will submit the facts to the DDC Director of construction who will recommend to the Deputy Commissioner regarding the issuance of a "48 hours notice" to the concerned utility company as authorized by the New York City administrative Code Section 19-143 and/ or Section 24-521 as applicable.
5. Utility delays caused by utility and/ or by unavailability of utility specialty crews cannot be discounted for earning any contractual bonus when such bonus clause is included in a contract. However, if such specified bonus is not earned or disallowed by the City or if the City assesses specified liquidated damages as a result of such excessive delays, the contractor may seek damages from the responsible utility company (ies).

6. *Extra utility work with Utility Agreement:*

If during construction the Contractor encounters utility facilities interferences or utility scope of work that it believes is not covered by the Interference Agreement as described above, then the Contractor shall immediately notify the Company in writing, with a copy to the City, describing the nature and location of the extra work in question. The Company then has five (5) business days to investigate the conditions and then:

1. Advise the Contractor and the City in writing that no interference with its facilities exists at the location in question, and hence that the Contractor may proceed with City work without providing for any impact from Company facilities;
2. Advise the Contractor and the City in writing that the Interference Agreement negotiated pursuant to Paragraph 4, provides for the scope of work encountered.
3. Advise the Contractor and the City in writing that it intends to perform the necessary utility Work with company forces or with its own contractor including, but not limited to, relocating its facility out of the way of the proposed City work. In this case, the Company shall provide a written schedule for the performance of the utility work it proposes to perform, which shall be subject to approval by the City based on its impact to the Contractor's currently approved progress schedule. Upon approval of the Company's schedule by the City, the Contractor shall provide access to the worksite to the Company and/or any contractors hired by it to perform this utility work. If necessary, the City may grant a contract time extension for delays caused by the performance of such utility work by the company.
4. Reasonably specify in writing the scope of work to be performed by the Contractor on behalf of the Company that is not covered under the Interference Agreement negotiated pursuant to Paragraph 5, including, but not limited to, relocating, supporting, and/or protecting the Company's facilities, and/or shifting the City facility if approved by the Resident Engineer, and/or otherwise changing its operations to work in the presence of the Company's facilities. Should the Company elect this option, it must adequately define and provide an initial price offer for the work required to be performed.

7. *Means and Methods for utility work:*

Upon receipt of the Company's determination pursuant to paragraphs 6.2, or 6.4, above, the Contractor shall determine reasonable means and methods of performing the work defined by the Company. These means and methods are subject to approval of the Company, which shall not be unreasonably withheld. If, however, the Company objects to the Contractor's proposed means and methods then it shall define an alternate method of construction. Upon receipt of the Company's approval or its proposed alternate method of construction, the Contractor shall commence performance of the work defined by the Company as soon as possible, and shall perform the work in a good, workmanlike, and efficient manner, using the means and methods approved by the Company, in order to permit the City work to proceed in the most expeditious manner possible, but without imposing unreasonable and/or unnecessary costs on the Company. It is expressly understood by all parties that the City's rights pursuant to Article 4 of the Contract apply to Utility Work performed pursuant to this section.

8. *Disputed utility work covered by a utility agreement:*

The City Work will continue as described in paragraph 5 above. In the event of any dispute between the Company (ies) and the Contractor regarding any issue related to the performance of, or payment for, utility work, including, but not limited to, any indirect or impact costs incurred by the Contractor due to the Utility Work and/or to the existence of facilities owned or operated by the Company (ies) on the line of the work. The Company (ies) and the Contractor hereby agree to submit to each other a "Final Offer," in writing, by certified mail. Each party shall then have three business days to consider each other's Final Offer. In the event that neither party accepts the other's Final Offer within those three days, the Company (ies) and the Contractor agree to immediately submit the dispute to binding arbitration as described in Paragraph 9. During the pendency of any arbitration, the Company (ies) and the Contractor shall maintain separate records of the actual quantity and cost of labor, materials, and equipment expended, and to provide copies of this information to the other party on a daily basis for reconciliation. Any and all disagreement with the records maintained and provided by the other, must be documented in writing to all parties. However, these records are solely for the benefit of presentation to the arbitrator, whose decision may not necessarily be based on these records and in any event is final. Both parties should be aware that the City will not

confirm or deny the accuracy of any records maintained by either party for Utility work performed pursuant to a Utility Agreement. While the arbitration is pending, the Company shall pay the Contractor on a monthly basis, based on the price offered by the Company to the Contractor for the performance of the work.

9. Arbitration of utility work:

The arbitration of the issues described above shall be conducted pursuant to the Construction Industry Arbitration Rules of the American Arbitration Association (hereinafter "the Rules" and "AAA") in effect on the date the arbitration is initiated except as set forth herein. The arbitration award shall be final and binding upon the parties to the arbitration and judgment upon the award may be entered in a court having jurisdiction.

- (a) Once an arbitrator(s) has been appointed by the AAA, the arbitration shall be scheduled as promptly as possible given the arbitrator(s) and the parties' schedules.
- (b) No later than seven days prior to the first arbitration hearing, Company and Contractor shall submit to the arbitrator(s), and to each other, a summary of each party's respective position and such other information as is deemed appropriate, along with a copy of each party's Final Offer as specified in paragraph 8.
- (c) The arbitration shall be conducted and concluded in two days.
- (d) On the morning of the first day of the arbitration, Contractor and/or representatives shall have 3 ½ hrs to make a presentation of its claim to the arbitrator. During its presentation, Contractor shall not be permitted to produce any documents or cost records which have not already been provided to the Company. Contractor shall be permitted to produce any analysis or description of its claim which has been prepared for the purpose of its presentation.
- (e) After lunch, Company and/or its representatives shall have two hours to ask Contractor questions about its claim and its presentation. Thereafter the arbitrator(s) shall have two hours to ask Contractor questions about its claim and its presentation.
- (f) On the morning of the second day of the arbitration, Company and/or its representatives shall have 3 ½ hours to make a presentation of its claim to the arbitrator. During its presentation, the Company shall not be permitted to produce any documents or cost records which have not already been provided to the Contractor. The Company shall be

permitted to produce any analysis or description of its claim which has been prepared for the purpose of its presentation.

- (g) After lunch, Contractor and/or its representatives shall have two hours to ask Company questions about its claim and its presentation. Thereafter the arbitrator(s) shall have two hours to ask Company questions about its claim and its presentation.
- (h) Subject to the above time limitations, the arbitrator(s) may conduct the arbitration in such manner as the arbitrator(s) deems reasonable.
- (i) The arbitrator(s) shall then have one week to select in writing, as the arbitrator(s) award, that party's Final Offer which appears to be more reasonable, based on the presentations at the arbitration hearings.
- (j) The arbitrator shall have no discretion to grant an award other than one of the two Final Offers submitted by the parties.
- (k) Any award for work that has already been performed shall be paid on the 7th day after receipt of the arbitrator's decision, or on the 30th day after completion of the work, whichever is later. Payment for work not yet completed at the time of the arbitrator's decision shall be paid within 30 days of completion of work. Interest shall accrue from the date payment is due at the rate of 9% per annum. Either party may cause judgment to be entered in accordance with the arbitrator(s) decision in a court in the State of New York, County of New York.
- (l) The arbitrator's fees and any other costs of the arbitration shall be initially shared equally by Company and Contractor. The non-prevailing party shall then pay all arbitrator's fees and costs of the arbitration and shall reimburse the prevailing party for its share of such fees and costs theretofore paid.
- (m) The parties may, at any time, settle any matter submitted to arbitration.

10. Order-out waiver:

The Contractor and all subcontractors hired by it, if an Interference Agreement is executed as specified between the concerned parties, agree to waive any rights they may have, if any, under law, contract or otherwise to compel the City to assert any right the City may have, including the issuance of any directives required under the New York City Administrative Code, Section 19-143 and Section 24-521, to require any or all of the Companies to maintain, repair, replace, protect, support, shift, alter, relocate, and/or remove utility facilities in connection with the

work to be performed under this contract. However, nothing in this section shall preclude the City from exercising its rights under the Law to issue such a directive to the Company.

11. Cost of insurance:

Each of the named Companies, at their option and if an Interference Agreement is executed as specified between the concerned parties, may be named as an additional insured on all insurance policies required to be maintained under this contract. In the event that a Company opts to be so named as an additional insured, the actual incremental cost, if any, to the Contractor of providing such insurance coverage shall be borne by that Company. The Contractor shall provide a written statement from its insurance provider documenting the actual cost of this added coverage to the Company. Under no circumstances shall the cost of insurance coverage on behalf of any Company be borne by the City. Nothing in this paragraph shall be interpreted to imply the City's acceptance of any additional responsibility or liability for any matter related to the performance of Utility Work. In particular, the Company and the Contractor bear joint and full responsibility to ensure that any Utility Work performed by the Contractor is in compliance with all applicable government and Company regulations.

12. Cost of utility interference work:

The Companies, by virtue of a prior agreement with the City, have agreed to perform their obligations described in this section. It is expressly understood that the cost of Utility Work or any delays cost cause by such utility work shall not be a charge against the City, but shall be a matter for adjustment between the Contractor and the Company or Companies concerned. The City and the Contractor agree that the Companies are third party beneficiaries of this section of the contract, if a Utility Agreement is executed between the contractor and utility company (ies). The provisions of this section shall govern in all cases where Company property interferes with or is about to be disturbed by the City work, notwithstanding any other provision of the Contract, except for Natural Gas transmission/distribution facilities covered subject to the Gas Facility Cost Allocation Act (GFCAA) and covered separately in this contract.

13. Default declaration:

The Contractor agrees that the provisions of this section are material provisions of the contract, and that the Contractor's failure to comply with the procedures set forth above are sufficient

for the Commissioner to declare the Contractor in default pursuant to Article 48 of the Contract.

14. NYS Labor Law:

The Contractor is hereby advised that New York State Labor Law applies to public work. The work described in this Section U of the contract performed by utility company (ies) with their own forces or vendors hired by such company (ies) is not public work.

15. Facility operators:

The insurance requirements in Paragraph 11 of this Section U apply to: (i) additional Companies, if any, who were not named in Schedule "A" but which have executed a Utility Agreement with the contractor for utility work; and (ii) additional coverage, if any, paid for by Utility Companies whose utility facilities are located within the project limits, that they may require for the utility work pursuant to an utility agreement between the contractor and such utility companies.

[End]

“STANDARD UTILITY LETTER OF AGREEMENT”

(Name)
Deputy Commissioner, Infrastructure Division
Department of Design and Construction
30-30 Thomson Avenue
Long Island City, NY 11101

RE: City Work Performed in the Presence of Private Utility Facilities
Project No: _____

Dear (Name):

This letter is to certify that _____, has requested the inclusion of the attached “Section U: Additional contract requirements applying to work performed in the presence of privately owned utility.” The company agrees to abide by the terms of this Section U at the company’s own expenses due to their facilities interferences with the Public work.

Sincerely,

By: Authorized Company Representative

Title

NOTARY PUBLIC

CERTIFIED AS TO FORM
AND LEGAL AUTHORITY:

By: _____

SCHEDULE U-1

SCHEDULE U-1

LISTING OF COMPANIES NAMED FOR THIS CONTRACT

<u>COMPANY NAME</u>	<u>CONTACT NAME</u>	<u>CONTACT TELEPHONE</u>
CON EDISON	THERESA KONG	212-460-4834
NATIONAL GRID	NEVILLE JACOBS	718-963-5612

SECTION U-3

(NO TEXT IN THIS SECTION)

(NO TEXT ON THIS PAGE)



**Department of
Design and
Construction**

**INFRASTRUCTURE DIVISION
BUREAU OF DESIGN**

VOLUME 3 OF 3

PROJECT ID: HWPLZ011K

RECONSTRUCTION OF ZION PLAZA

**INCLUDING CURB AND SIDEWALK RECONSTRUCTION, STREET LIGHTING, TRAFFIC
SIGNALS, AND BIOSWALE WORK**

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

Contractor.

Dated _____, 20____